EBIX Insurance No. S200004548

AGREEMENT FOR SERVICES
BETWEEN
CITY OF SANTA CLARA, CALIFORNIA,
AND
JPMORGAN CHASE BANK, N.A.

PREAMBLE

This Agreement is entered into between the City of Santa Clara, California, a chartered California municipal corporation (City) and JPMorgan Chase Bank, N.A. a national banking association, (Contractor). City and Contractor may be referred to individually as a "Party" or collectively as the "Parties" or the "Parties to this Agreement."

RECITALS

City desires to secure the general banking services more fully described in this Agreement, at Exhibit A, entitled "Scope of Services";

Contractor represents that it, and its subcontractors, if any, have the professional qualifications, expertise, necessary licenses and desire to provide certain goods and/or required services of the quality and type which meet objectives and requirements of City specified herein; and,

The Parties have specified herein the terms and conditions under which such services will be provided and paid for.

The Parties agree as follows:

AGREEMENT TERMS AND CONDITIONS

1. AGREEMENT DOCUMENTS

The documents forming the entire Agreement between City and Contractor shall consist of these Terms and Conditions and the following Exhibits, which are hereby incorporated into this Agreement by this reference:

Exhibit A – Scope of Services (Service Group 1: General Banking)

Exhibit B – Schedule of Fees

Exhibit C – Insurance Requirements

Exhibit D – Contractor's Terms

This Agreement, including the Exhibits set forth above, contains all the agreements, representations and understandings of the Parties, and supersedes and replaces any previous agreements, representations and understandings, whether oral or written, between the Parties with respect to the services within the scope of this Agreement. In the event of any inconsistency between the provisions of any of the Exhibits and the Terms and Conditions, the Terms and Conditions shall govern and control. "Contractor's Terms" means Contractor's account terms, service terms and other documents required for the

administration, implementation or operation of the Services, together with any addenda, schedules, supplements, and other attachments.

2. TERM OF AGREEMENT

Unless otherwise set forth in this Agreement or unless this paragraph is subsequently modified by a written amendment to this Agreement, the term of this Agreement shall begin on the Effective Date of this Agreement, which is the date that the final signatory executes the Agreement, for a term of five (5) years, with an option to extend the term of this Agreement for up to five (5) years, which option may be exercised at the sole discretion of the City, subject to Contractor's consent which may be premised upon mutually acceptable adjustments to compensation and other terms and execution of an amendment to this Agreement or other mutually acceptable documentation. Exercise of option by City shall be requested in writing and served no less than 30 days prior to expiration of the initial five-year term, unless an alternative period is agreed to by both Parties, in accordance with Section 16 – "Notices".

3. SCOPE OF SERVICES & PERFORMANCE SCHEDULE

Contractor shall perform those Services specified in Exhibit A within the time stated in Exhibit A. Time is of the essence. For the avoidance of doubt, the services to be performed under this Agreement do not include Merchant Card Services (Service Group 2), Purchasing Card / Integrated Payables (Service Group 3) or Institutional Custody (Service Group 4). Any reference to the RFP or Proposal in this Agreement will refer only to the terms therein that apply to Service Group 1: General Banking.

4. WARRANTY

Contractor expressly warrants that all materials and services covered by this Agreement shall conform to the specifications, requirements and instructions of City's Request for Proposal #19-20-21 dated October 28, 2019 (the "RFP") that apply to Service Group 1: General Banking, except as qualified or modified by Contractor's Comprehensive Banking Services Technical Proposal dated December 6, 2019 (the "Proposal") which is incorporated by reference. Contractor agrees to promptly replace or correct any incomplete, inaccurate or defective Services at no further cost to City when defects are due to the negligence, errors or omissions of Contractor. If Contractor fails to promptly correct or replace materials or services, City may make corrections or replace materials or services and Contractor shall refund any compensation paid to Contractor under this Agreement for the materials or services that the City corrected or replaced.

5. QUALIFICATIONS OF CONTRACTOR - STANDARD OF CARE

Contractor represents and maintains that it has the expertise in the professional calling necessary to perform the Services, and its duties and obligations, expressed and binding upon Contractor under applicable law, contained herein, and City expressly relies upon Contractor's representations regarding its skills and knowledge. Contractor shall perform such Services and duties in conformance to and consistent with the professional standards of a national banking association.

6. COMPENSATION AND PAYMENT

A. In consideration for Contractor's complete performance of Services, City shall pay Contractor for all materials provided and Services rendered by Contractor in accordance with Exhibit B - "SCHEDULE OF FEES." Payment of fees by City and continued performance of the Services by Contractor under this Agreement is subject to City budget appropriations, which includes all payments that may be authorized for Services and for expenses, supplies, materials and equipment required to perform the Services. City shall notify Contractor if sufficient funds are not appropriated for City to make payment under this Agreement. Contractor is not obligated to perform, any services if sufficient funds have not been appropriated for payment of such services. Contractor shall invoice the City for all products and services rendered to the City on an ongoing basis in accordance with the rates and charges set forth in Exhibit B – SCHEDULE OF FEES, and Contractor shall not have the right to increase the rates and charges reflected on Exhibit B – SCHEDULE OF FEES during the initial Term of the Agreement. Any products or services not provided to the City on an ongoing basis shall be offered at the rates reflected on Exhibit B – SCHEDULE OF FEES and if not described therein at reasonable rates agreed to by both Parties.

B. Analysis Accounts. At the end of each annual billing period, the City shall pay all service charges and charges for supplies reflected in the Account Analysis provided by Contractor and verified by the City, minus reductions for credits provided by Contractor to the City for compensating balances and Earnings Credit Allowance. Any unused Earnings Credit Allowance will not be carried forward to future billing periods. The annual billing period shall commence and end on dates to be mutually agreed to by both Parties.

C. Other Accounts. At the end of each annual billing period, the City shall pay all service charges and charges for supplies for any Accounts not included in the Account Analysis, including accounts related to City activity or on behalf of the City, at the rates and charges set forth in Exhibit B – SCHEDULE OF FEES minus reductions for any Earnings Credit Allowance.

D. The City shall be invoiced by Account Analysis and Contractor shall provide sufficient detail to allow the City to review and approve the reconciled costs of services. The Account Analysis shall permit the breakout of charges or costs by account or account group to allow for separate billing options, at the option of the City. Final format of account groups, if any, shall be confirmed by the City's Director of Finance, or his/her designee.

E. The Account Analysis shall be available for City to review by the sixth (6th) banking day of each calendar month. On the fifteenth (15th) calendar day after the end of each annual billing period, or the next banking day if the fifteenth (15th) falls on a weekend or a bank holiday, Contractor shall (a) apply the City's earnings credit allowance against the fees and other compensation amounts reflected in the Account Analysis, less any disputed charges and (b) automatically debit from City's predetermined account(s) (unless the Parties agree otherwise in writing) any undisputed fees and other compensation amounts that remain unpaid after Contractor applies the Earnings Credit Allowance for the billing period.

F. The Parties agree to resolve any disputed fees in good faith and Contractor may debit from the City's predetermined account(s) any disputed charges the City has agreed to pay, immediately following resolution.

G. The City shall retain the right to dispute any fees paid for a period of six months following the date such fees are paid or automatically deducted from the City's predetermined account(s).

H. The City will not honor any invoices or claims by Contractor that are tendered six months or later after the last item of the Agreement has expired.

7. TERMINATION

A. Termination for Convenience. City shall have the right to terminate this Agreement, without cause or penalty, by giving not less than thirty (30) days' prior written notice to Contractor.

B. Termination for Default. If Contractor fails to perform any of its material obligations under this Agreement, in addition to all other remedies provided by law, City may terminate this Agreement immediately upon written notice to Contractor.

C. Upon termination, each Party shall assist the other in arranging an orderly transfer and close-out of services. As soon as possible following the notice of termination, but no later than ten (10) days after the notice of termination, Contractor will deliver to City all City information or material that Contractor has in its possession.

8. ASSIGNMENT AND SUBCONTRACTING

City and Contractor bind themselves, their successors and assigns to all covenants of this Agreement. This Agreement shall not be assigned or transferred without the prior written approval of City; provided, however, Contractor may assign this Agreement without City's approval to a successor in interest in connection with a merger, reorganization, consolidation, or a disposition of a particular business to which this Agreement relates, and in the event of such an assignment, Contractor shall notify City as soon as reasonably practicable, and if City objects to such assignment, City may immediately terminate this Agreement without penalty. Contractor shall not hire subcontractors without express written permission from City. For all purposes under this Agreement, inclusive of all exhibits and attachments hereto, "subcontractor" and "subcontract" shall refer to a third party or an agreement with such third party, if any and as applicable, engaged by Contractor to specifically aid in the performance of its obligations under this Agreement, but shall not include any third party engaged by Contractor, from time to time, in the performance of certain operational, technological, incidental, or back office functions that assist Contractor in its performance of services, on a common basis, for all or most of its customers utilizing such services, such latter category of third parties being referred to as Third Party Service Providers. Contractor shall not be required to notify or obtain permission from City or any other party to engage a Third Party Service Provider.

Contractor shall be as fully responsible to City for the negligent acts and omissions of its subcontractors, and of persons either directly or indirectly employed by them,

as Contractor is responsible under this Agreement for the negligent acts and omissions of persons directly employed by it.

9. NO THIRD PARTY BENEFICIARY

This Agreement shall not be construed to be an agreement for the benefit of any third party or parties and no third party or parties shall have any claim or right of action under this Agreement for any cause whatsoever.

10. INDEPENDENT CONTRACTOR

Contractor and all person(s) employed by or contracted with Contractor to furnish labor and/or materials under this Agreement are independent contractors and do not act as agent(s) or employee(s) of City. Contractor has full rights to manage its employees in their performance of Services under this Agreement.

11. CONFIDENTIALITY OF MATERIAL

All ideas, memoranda, specifications, plans, manufacturing procedures, data, drawings, descriptions, documents, discussions or other information developed or received by or for Contractor and all other written information submitted to Contractor in connection with the performance of this Agreement shall be held confidential by Contractor and shall not, without the prior written consent of City, be used for any purposes other than the performance of the Services or for audit, compliance, fraud mitigation or risk management purposes nor be disclosed to an entity to whom disclosure is not necessary for the foregoing purposes. Nothing furnished to Contractor which is otherwise known to Contractor or becomes generally known to the related industry shall be deemed confidential.

12. OWNERSHIP OF MATERIAL

[Intentionally deleted. Banking services are not provided on a work for hire basis.]

13. RIGHT OF CITY TO INSPECT RECORDS OF CONTRACTOR

City, through its authorized employees, representatives or agents shall have the right during the term of this Agreement and for four (4) years from the date of final payment for goods or services provided under this Agreement, to audit the books and records of Contractor for the purpose of verifying any and all charges made by Contractor in connection with Contractor compensation under this Agreement, including termination of Contractor. Contractor agrees to maintain sufficient books and records in accordance with generally accepted accounting principles in its industry to establish the correctness of all charges submitted to City. Any expenses not so recorded shall be disallowed by City. City shall reimburse Contractor for the reasonable cost of complying with any inspection, audit or review, unless the audit determines that there has been a substantial billing deviation in excess of five (5) percent adverse to the City, in which case Contractor shall not be entitled to such reimbursement and City may deduct the amount of excess fees paid by City from compensation due to Contractor under this Agreement, unless there is no compensation due (or the compensation due is less than these amounts) in which case such amounts may be charged directly to Contractor.

Notwithstanding anything to the contrary in this Agreement, Contractor's maintenance, return, removal or destruction of any books or records is subject to Contractor's standard record retention policy and retention periods established thereunder for each category of records. Nothing in this Agreement shall require Contractor to disclose or permit access to any examination reports, internal audit reports, records relating to other parties or personnel who are not responsible for overseeing Contractor's performance of the Services, or any records that Contractor does not disclose to third parties in the ordinary course of its business. Further, any audit, examination, or review under this Agreement is: i) subject to Contractor's receipt of a written request from City specifically describing the books or records required, ii) solely for the purpose of verifying Contractor's compliance with the compensation and payment provisions of this Agreement and iii) subject to Contractor's record retention policies. If City requires access to Contractor's facilities, such access will be subject to Contractor's security procedures and Contractor may impose reasonable restrictions on the number of individuals allowed access, the frequency and length of access, and the areas accessed.

Contractor shall submit to City any and all reports concerning its performance under this Agreement that may be requested by City in writing. Contractor agrees to assist City in meeting City's reporting requirements to the State and other agencies with respect to Contractor's Services hereunder. The type and content of the reports and the assistance provided shall be as mutually agreed upon by the Parties.

14. HOLD HARMLESS/INDEMNIFICATION

A. To the extent permitted by law, Contractor agrees to protect, defend, hold harmless and indemnify City, its City Council, commissions, officers, employees, volunteers and agents from and against any claim, injury, liability, loss, cost, and/or expense or damage, including all costs and attorney's fees in providing a defense to any such claim or other action, and whether sounding in law, contract, tort, or equity, to the extent caused by Contractor's negligence or willful misconduct in its performance of the Services pursuant to this Agreement – including claims of any kind by Contractor's employees or persons contracting with Contractor to perform any portion of the Scope of Services. Notwithstanding the foregoing, (i) Contractor is not liable for any indirect, incidental, consequential, exemplary, punitive or special damages, including lost profits, regardless of the form of action or theory of recovery, even if Contractor has been advised of the possibility of those damages or the same are reasonably foreseeable; and (ii) Contractor's indemnity obligations shall not exceed, in the aggregate, an amount equal to two times the average annual fees paid or payable to Contractor under the Agreement (exclusive of any earnings credits used to offset such fees).

B. Contractor's obligation to protect, defend, indemnify, and hold harmless in full City and City's employees, shall specifically extend to any and all employment-related claims of any type brought by employees, contractors, subcontractors or other agents of Contractor that perform any portion of the Scope of Services, against City (either alone, or jointly with Contractor) in connection with this agreement, regardless of venue/jurisdiction in which the claim is brought and the manner of relief sought.

C. To the extent Contractor is obligated to provide health insurance coverage to its employees pursuant to the Affordable Care Act ("Act") and/or any other similar federal or state law, Contractor warrants that it is meeting its obligations under the Act and will fully indemnify and hold harmless City for any penalties, fines, adverse rulings, or tax payments associated with Contractor's responsibilities under the Act.

15. INSURANCE REQUIREMENTS

During the term of this Agreement, and for any time period set forth in Exhibit C, Contractor shall provide and maintain in full force and effect, at no cost to City, insurance policies as set forth in Exhibit C.

16. WAIVER

Contractor agrees that waiver by City of any one or more of the conditions of performance under this Agreement shall not be construed as waiver(s) of any other condition of performance under this Agreement. Neither City's review, acceptance nor payments for any of the Services required under this Agreement shall be constructed to operate as a waiver of any rights under this Agreement or of any cause of action arising out of the performance of this Agreement.

17. NOTICES

All notices to the Parties shall, unless otherwise requested in writing, be sent to City addressed as follows:

City of Santa Clara
Attention: Finance Department
1500 Warburton Avenue
Santa Clara, CA 95050
and by e-mail at finance@santaclaraca.gov, and
manager@santaclaraca.gov

And to Contractor addressed as follows:

JPMorgan Chase Bank, N.A.
Attn.: Bev Correa or CB Gov't Industry Manager
560 Mission St, 4th Floor, Mail Code: CA1-0401
San Francisco, CA, 94105-2907
and by e-mail at bev.correa@jpmorgan.com

The workday the e-mail was sent shall control the date notice was deemed given. An e-mail transmitted after 2:00 p.m. Pacific Time on a Friday shall be deemed to have been transmitted on the following business day.

18. COMPLIANCE WITH LAWS

To the extent binding upon Contractor in its performance of the Services, Contractor shall comply with all applicable laws and regulations of the federal, state and local government, including but not limited to "The Code of the City of Santa Clara, California" ("SCCC"). In particular, Contractor's attention is called to the regulations

regarding Campaign Contributions (SCCC Chapter 2.130), Lobbying (SCCC Chapter 2.155), Minimum Wage (SCCC Chapter 3.20), Business Tax Certificate (SCCC section 3.40.060), and Food and Beverage Service Worker Retention (SCCC Chapter 9.60), as such Chapters or Sections may be amended from time to time or renumbered. Additionally Contractor has read and agrees to comply with City's Ethical Standards (http://santaclaraca.gov/home/showdocument?id=58299).

To the extent that the charter, ordinances, rules and regulations of City currently, or in the future, impose obligations upon City's contractors that provide services contemplated in this Agreement, which are not expressly set forth in this Agreement, Contractor will, if notified of such requirements, endeavor to comply with the same, except to the extent that it reasonably concludes that compliance with such requirements subject it to additional obligations, liability or expense or impose upon it reporting requirements of confidential or non-public information or information that it does not currently monitor or disclose to third parties. If Contractor makes such determination, and the parties are unable to resolve these issues through mutually agreeable amendments to this Agreement, either party may terminate this Agreement without penalty upon notice to the other.

19. CONFLICTS OF INTEREST

Contractor certifies that to the best of its knowledge, no City officer, employee or authorized representative has any financial interest in the business of Contractor and that no person associated with Contractor has any interest, direct or indirect, which could conflict with the faithful performance of this Agreement. Contractor is familiar with the provisions of California Government Code section 87100 and following, and certifies that it does not know of any facts which would violate these code provisions. Contractor will advise City if a conflict arises. For the avoidance of doubt, Contractor does not consider ownership interests in its holding company, JPMorgan Chase & Co., or any of its publicly traded affiliates to constitute an interest for the purpose of the foregoing certification. Mere ownership of interests in such publicly traded companies does not entitle a shareholder to manage or participate in Contractor's business.

20. FAIR EMPLOYMENT

Contractor shall not discriminate against any employee or applicant for employment because of race, sex, color, religion, religious creed, national origin, ancestry, age, gender, marital status, physical disability, mental disability, medical condition, genetic information, sexual orientation, gender expression, gender identity, military and veteran status, or ethnic background, in violation of federal, state or local law.

21. NO USE OF CITY NAME OR EMBLEM

Contractor shall not use City's name, insignia, or emblem, or distribute any information related to services under this Agreement in any magazine, trade paper, newspaper or other medium without express written consent of City.

22. GOVERNING LAW AND VENUE

This Agreement shall be governed and construed in accordance with the statutes and laws of the State of California, except to the extent such state law is pre-empted by Federal law, in which case Federal law shall govern. The venue of any

suit filed by either Party shall be vested in the state courts of the County of Santa Clara, or if appropriate, in the United States District Court, Northern District of California, San Jose, California.

23. SEVERABILITY CLAUSE

In case any one or more of the provisions in this Agreement shall, for any reason, be held invalid, illegal or unenforceable in any respect, it shall not affect the validity of the other provisions, which shall remain in full force and effect.

24. AMENDMENTS

This Agreement may only be modified by a written amendment duly authorized and executed by the Parties to this Agreement.

25. COUNTERPARTS

This Agreement may be executed in counterparts, each of which shall be deemed to be an original, but both of which shall constitute one and the same instrument.

The Parties acknowledge and accept the terms and conditions of this Agreement as evidenced by the following signatures of their duly authorized representatives.

CITY OF SANTA CLARA, CALIFORNIA
a chartered California municipal corporation

Approved as to Form

for

BRIAN DOYLE
City Attorney

Dated: 12/15/2020

for DEANNA J. SANTANA
City Manager
1500 Warburton Avenue
Santa Clara, CA 95050
Telephone: (408) 615-2210
Fax: (408) 241-6771

"CITY"

JPMORGAN CHASE BANK, N.A.
a national banking association

Dated: 12/10/20

By (Signature):

Name: Bev Correa

Title: Vice President

Principal Place of Business Address: 560 Mission Street, 4th Fl., San Francisco, CA 94105

Email Address: bev.correa@jpmorgan.com

Telephone: (415) 315-8803

Fax:

"CONTRACTOR"

EXHIBIT A
SCOPE OF SERVICES
(Service Group 1: General Banking)

The Services to be performed for the City by the Contractor under this Agreement are those services described in the provisions of the Proposal that apply to Service Group 1: General Banking.

4 Service Group 1: General Banking

(Only firms proposing for Service Group 1 should respond to this section.)

4.1 Customer Service

4.1.1 Fill in the following table with information on those individuals that will be assigned to the City for this service group. Include only the individuals who will work with the City on a regular basis.

Name	Proposed Role	Location	# Years in Field	# Years with Firm	# Client Relationships Responsible For
Ana Prieto	Client Service Professional (CSP)	Phoenix, AZ	1	6	*Please see note

* The bank's CSPs' portfolios vary in size depending on client needs, complexity of the relationships and the amount of cash management business supported. Our client service management regularly reviews CSP portfolio size to make sure your needs will be met with a high level of service.

4.1.2 What are the hours of operation of the customer service unit involved in supporting the proposed services?

Our CSPs are available during standard business hours within each time zone. In addition, our Commercial Banking Service Center offers extended hours of operation from 5:00 a.m. to 6:00 p.m. PT, Monday through Friday.

4.2 Vault Processing

4.2.1 Which vault location are you proposing the City use for coin and currency deposits handled by its armored car provider?

We recommend the City utilize our Milpitas or Oakland vault locations for armored courier deposits.

4.2.2 What is the ledger cutoff time for deposits at the vault deposit location, if applicable?

The following are cutoff times for same-day ledger credit on deposits:

Vault cutoff deadlines for same-day credit

City[1]	State	Outsourced	Cash-Only[2] deposit	Mixed (cash[2] and check)	Check only
			Vault cutoffs are stated in local time of the vault		
Oakland	CA	Y	4:00 p.m.	4:00 p.m.	4:00 p.m.
San Jose (Milpitas)	CA	Y	8:00 p.m.	5:00 p.m.	5:00 p.m.

1 As a business practice, we regularly review vault activity which may result in openings, closings and changes to cutoff times.
2 Coin deposits greater than $10 may be credited to your account on a delayed basis.

4.2.3 Describe the process the City would use to research any deposit discrepancies.

The City's CSP, Ana Prieto, is your point of contact for all your research and adjustment requests. Ana will work with appropriate operational colleagues to make sure your request and any adjustment is handled in a timely and accurate manner and has the authority to escalate whenever necessary to make sure that issues are resolved.

4.2.4 When are deposits credited? If provisional credit is given, when does verification take place?

Vault deposits received prior to the cutoff times stated above will receive same-day credit. Deposits received after the cutoff will be credited the following business day.

4.2.5 If the Firm corrects a vault deposit, how will the City be informed of this change (i.e. phone call, online notification, fax, e-mail)? Is there a de minimis amount below which you write off deposit adjustments; if so, what is it?

Vault deposit adjustment mail advices contain the following data: account number, location number, deposit bag number, customer name and address, deposit date, credit date, verified date, declared deposit amount, verified deposit amount, adjustment amount, adjustment reason, denomination breakdown, processing vault location, processing teller ID number and approver teller ID number.

Email notification for deposits and adjustments includes the following data: vault site, customer name, account number, location number, serial number, deposit bag number, deposit date, credit date, verified date and declared deposit amount. For adjustments, verified deposit amount, amount over, amount short and adjustment reason are included.

J.P. Morgan will process your adjustment requests regardless of dollar amount. We internally manage adjustments below a predetermined sundry amount without posting the corrected entries and related fees to the City's account.

Email Notification for Vault Adjustments

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THIS IS AN AUTOMATED NOTIFICATION, PLEASE DO NOT REPLY TO THIS MESSAGE

JPMorgan Chase - Cash Services Deposit and Adjustment Report

Please refer questions to your JPMorgan Chase Service Representative

We have credited / adjusted your account as described below:
_____________________________________________________________________

DEPOSITS
_____________________________________________________________________

SITE:    132 - Phoenix, Arizona
NAME:    TEST CUSTOMER
ACCOUNT: **********0000          LOCATION:   0000000000
SERIAL:  0000000000              BAG NUMBER: 91409631

DEPOSIT TICKET DATE:             05/03/2007
CREDITED DATE:                   05/04/2007
VERIFIED DATE:                   05/04/2007
DECLARED DEPOSIT AMOUNT:         $162,707.87
_____________________________________________________________________

ADJUSTMENTS
_____________________________________________________________________

SITE:    132 - Phoenix, Arizona
Name:    TEST CUSTOMER
ACCOUNT: **********0000          LOCATION:   0000000000
SERIAL:  0000000000              BAG NUMBER: 91409631

DEPOSIT TICKET DATE:             05/03/2007
CREDITED DATE:                   05/04/2007
VERIFIED DATE:                   05/04/2007
DECLARED DEPOSIT AMOUNT:         $162,707.87
VERIFIED DEPOSIT AMOUNT:         $162,687.87

AMOUNT OVER:                     $0.00
AMOUNT SHORT:                    $20.00
REASON:                          08 - Counterfeit
_____________________________________________________________________
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Figure 5.

4.2.6 Does the City have to sort bags by coin denomination or are mixed-bags acceptable?

There are price incentives for preparing standard coin bags, sorted by denomination into Fed-standard dollar amounts. The bank accepts mixed and partial bags through the vault.

4.2.7 Are deliveries of change and currency orders available via the armored car? If so, explain the timelines and procedures for placing change and currency order requests. If not, explain procedures for acquiring change and currency.

J.P. Morgan offers automated coin and currency ordering services (change order services) for pick-up through our Milpitas or Oakland vault locations via armored courier. The City may request change orders as needed, establish a standing vault order or use a combination of orders. Coin and currency orders are placed via telephone using an interactive voice response (IVR) or through our Web Currency Services ordering platform.

- Your as-needed change orders can be set up 24/7 and up to six months in advance of the requested delivery date. Orders placed prior to 1:00 p.m. PT will be available for armored courier pick up by the end of the business day in either the Milpitas or Oakland vault.
- A standing vault order is an established, repetitive order prepared for a predetermined amount and delivered on predetermined delivery days, e.g., every Monday and Thursday. Amounts may vary by delivery day. Orders can be delivered daily Sunday through Saturday, subject to your armored courier service restrictions.

Vault change order process flow

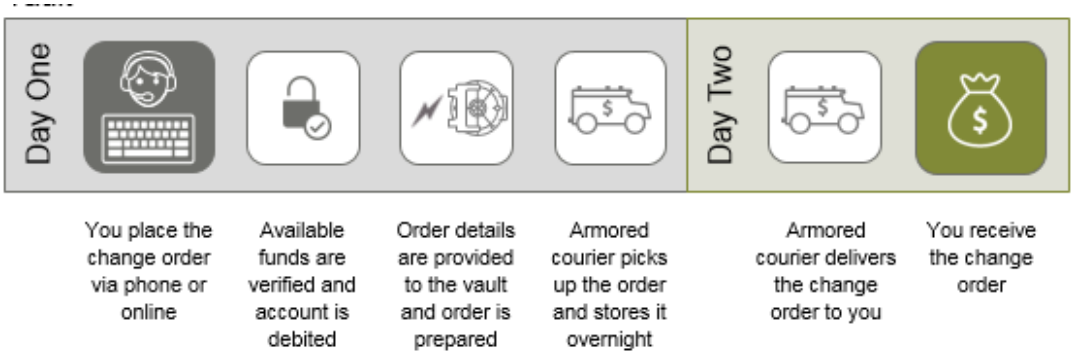


Figure 6.

We only release change orders to an approved armored courier when they are picked up at one of our vaults. The City must contract with an armored courier to act as an agent to transport change orders. You need to notify us of the specific armored courier for each location. Change order delivery is based on armored courier commitments. It is typically scheduled for the following day or within two or three days from when the change order was picked up at the vault.

4.2.8 Can bank supplies (i.e. deposit bags and deposit tickets) be ordered through your Firm? Does the Firm charge a fee for these supplies? If so, is the fee a pass-through charge, or is there a mark-up?

Yes, the City orders deposit tickets and other supplies through J.P. Morgan. We will debit your account for deposit tickets, endorsement stamps and depository bag fees. Other depository supplies may be charged through account analysis without any markup.

4.3 Smart Safes

4.3.1 Do you offer smart safes? If not, are you able to partner with an armored car courier to offer the technology? If you partner with multiple armored car companies, which companies do you work with in the City's footprint?

Yes, J.P. Morgan offers Smart Safe with Advanced Credit which provides the City with daily credit on currency that is validated and deposited into a leased or purchased Smart Safe from Brinks, Dunbar, Garda or Loomis. Advanced credit allows you to reduce the armored services schedule with your vendor to lower costs. Smart Safe with Advanced Credit is designed to improve daily cash flows and incorporates bill validation, counterfeit detection, secured storage and detailed reporting. The efficiencies gained using Smart Safe with Advanced Credit will allow the City to eliminate time-consuming deposit preparation of cash, freeing staff to spend more time on other tasks.

We recommend that he City meet with our approved armored courier providers to understand the Smart Safe solution that is right for your operations. They will review the equipment options, placement, capacity and related pricing with you to help determine a solution that meets your needs.

SMART SAFE ADVANTAGES

- Improves cash flow with daily credit for cash placed in Smart Safes without making a physical deposit to the bank
- Lowers costs by reducing frequency of armored service pickups
- Complete a site-specific analysis for deployment consideration

How it works

- Place cash in the Smart Safe secure bill validator throughout the day. At the end of the day, the balance is transmitted electronically from the Smart Safe to the City's armored vendor.
- The armored vendor will electronically transmit to us the aggregate value of cash deposited through the bill validators for each of the City's locations.
- J.P. Morgan will credit your account for the amount transmitted by the vendor, which the City can view the following morning via Access Online or by BAI2 reporting file.
- J.P. Morgan requires that the Smart Safe is serviced by your armored courier at least once per week.

Checks and coin may be placed in the safe's storage vault; however, neither check nor coin deposits will be included in the advanced credit amount. When servicing the Smart Safe, your armored vendor can pick-up separately prepared check and coin deposits and deliver to their vault for processing.

4.3.2 Describe the smart safe options and technology available, including information about the available safe sizes.

We welcome the opportunity to discuss our Smart Safe solution in detail with the City. When speaking with the armored couriers, we recommend thoroughly discussing the various hardware options available to find the right fit for the needs of each of your locations. This includes but is not limited to the physical size of the machine, the note deposit capacity and coin/currency recycling capabilities. To prevent emergency servicing, the appropriate safe size is an important decision during implementation.

4.4 Branch Services

4.4.1 Will a check cashing agreement be required when a non-account holder cashes a City check drawn from an account held with your Firm at the Firm's branch location? If yes, include a copy.

J.P. Morgan offers on us check cashing which does not require a check cashing agreement.

4.4.2 Is the Firm willing to cash City checks drawn from an account held with your Firm at no charge to the City or the presenter?

J.P. Morgan will cash the City's payroll checks drawn on J.P. Morgan. The City may elect to have fees charged to the payees or to absorb fees on behalf of the payees. This applies only to payees without Chase accounts; Chase account holders will not incur fees. Reasonable thresholds will be established for the City based on the expected activity and risk for the account. The threshold represents a maximum per check limit. The standard maximum threshold is $5,000; any increase in that threshold requires additional reviews and approvals.

We understand the importance of providing this service for the remaining City employees still receiving paper checks and have adjusted pricing for non-account holders to $4 per item should the City want to absorb the fees. Should the City elect to have the fee charged to the non-Chase account holders, the standard $8 fee will apply.

4.5 Remote Deposit Capture ("RDC")

4.5.1 Describe the Firm's ability to process checks by Remote Deposit Capture ("RDC").

Our Remote Deposit Capture solution provides an end-to-end hardware, software and processing solution for reducing paper check payments at branch locations, drop boxes, and internal retail and consumer lockboxes. To use our remote capture services, The City needs a high-speed Internet connection, a desktop check scanner and a Windows-based PC.

REMOTE DEPOSIT CAPTURE ADVANTAGES

- Minimizing cost associated with manual check processing.
- Expediting deposits, which results in increased available funds.
- Allowing you to make deposits from any location in the United States.
- Reducing processing and clearing float.
- Eliminating the need to make over-the-counter deposits on a daily basis.
- Removing the need to mail checks to a central location.

- The solution allows the City to deposit business, government and consumer checks, Postal Money Orders, Western Union Money Orders, demand drafts and government warrants.
- The City scans images of checks and transmits them electronically to the bank for clearing.
- Transmissions are conducted through secure HTTP protocols employing 128-bit encryption.
- The bank maintains check images in an archive for online access.
  - We retain images to detect duplicates for 14 days.
  - The City can remove a suspected duplicate check from the deposit or choose to continue to deposit it.
- We provide same-day ledger credit for checks received by the deadline.
- An implementation specialist works with the City to set up remote capture services.
- Remote capture services can be configured to convert your eligible checks to ACH.
- Check images are typically available in the image archive within several minutes after a deposit is submitted. J.P. Morgan maintains your remote captured images in the online repository up to 10 years.
- Our remote capture service maintains detailed deposit history reports that the City can easily download and import to an ERP accounting system. You can download reports and view images at any time.

Remote Deposit Capture workflow

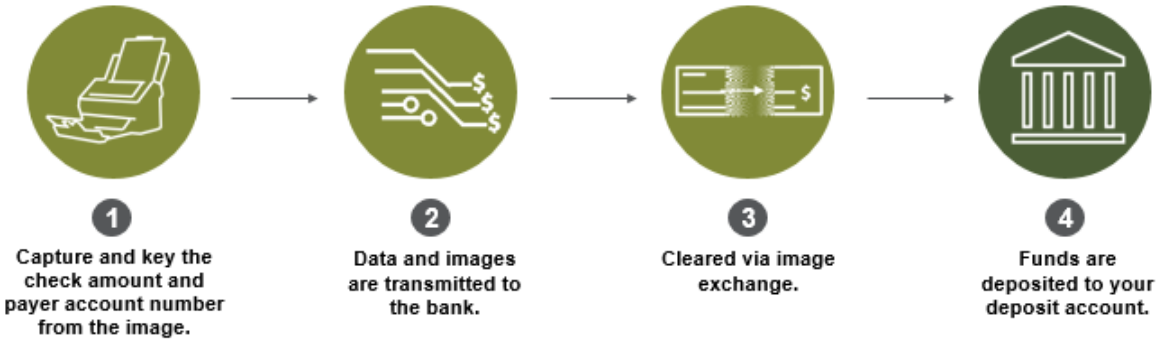


Figure 7.

Remote Deposit Capture (including Mobile) is for use only in the U.S. Checks must be scanned from a U.S. location, drawn on a U.S. financial institution in U.S. dollars and deposited into a J.P. Morgan U.S.-domiciled DDA.

Remote Deposit Capture with Mobile

Our remote capture service is available on mobile devices extending the reach of a remote deposit service to the point of check receipt. Mobile capabilities provide another efficient and cost-effective electronic alternative to paper deposits. It only requires a compatible smartphone or tablet, connectivity service plan, a wireless signal, and a J.P. Morgan demand deposit account.

- Our mobile remote capture service is fully integrated with our desktop solution providing the same features and functionality.
- To maximize organizational efficiencies, use desktop scanners and the mobile solution together or stand alone.
- The application is intuitive and easy to use, requiring minimal training or support.
- Employees in the field can photograph and capture checks for deposit to your J.P. Morgan DDA.
- Optional user fields allow data entry of additional deposit information (numeric, alpha, alphanumeric, amount, or date fields) that will flow through with the associated check image.
- The check image and/or document is uploaded and transmitted to the bank for processing.
- Review 14-day deposit history on the mobile device. Remote captured images are available on the online repository up to 10 years.
- No sensitive data is stored on the mobile device once a deposit is completed.

Remote Deposit Capture - did you know?

Our Remote Deposit Capture service provides robust reporting options with Receivables Online, our Internet-based receivables reporting platform, in an easily downloadable format. You can access images and information related to remote deposit captured checks and electronic payments received via ACH or Fedwire—all through a single portal. Easy navigation, advanced queries, payment alerts and

workflow tools give your accounts receivable, credit and customer service staff the ability to make informed business decisions quickly without handling paper documents.

Receivables Online lets the City view transaction data and images that are stored on a server at the bank. You access the server via the Internet, using a standard web browser. Your lockbox images are available shortly after lockbox processing is completed. Further, electronic payments are available on a scheduled basis. Images are retained in a high-speed, online storage archive for more than a month. The City may also choose to use our 10-year archive solution, on the same web browser, for your long-term retention needs.

In addition to the standard reports available on Receivables Online that report all deposited transactions, we offer three additional reports to provide details on your remote deposit transactions.

Activity Summary Report

- **Description**: Remote capture transaction total by capture date for 1 to 31 days
- **Usage**: Monitor all remote deposit workflow activity with status
- **Conditions**: Standard with remote capture service

Activity Summary Report

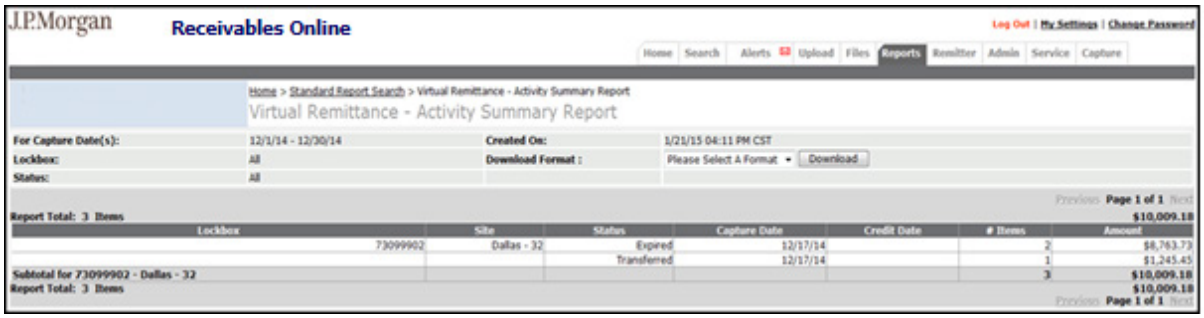


Figure 8.

Operator Summary Report

- **Description**: Remote capture transaction total by operator and capture date for 1 to 31 days
- **Usage**: Monitor all remote deposit operator activity with status
- **Conditions**: Standard with remote capture service

Operator Summary Report

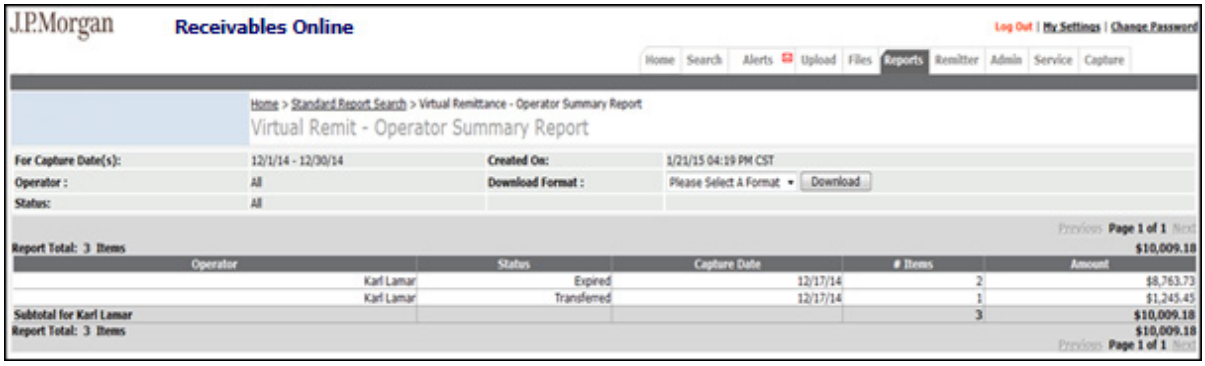


Figure 9.

Remote Deposit Capture Details Report

- **Description**: All items report of remote deposit capture activity with deposit identifiers
- **Usage**: Monitor all remote deposit activity for a single day
- **Conditions**: Standard with the U.S. remote deposit capture service

Remote Deposit Capture Details Report

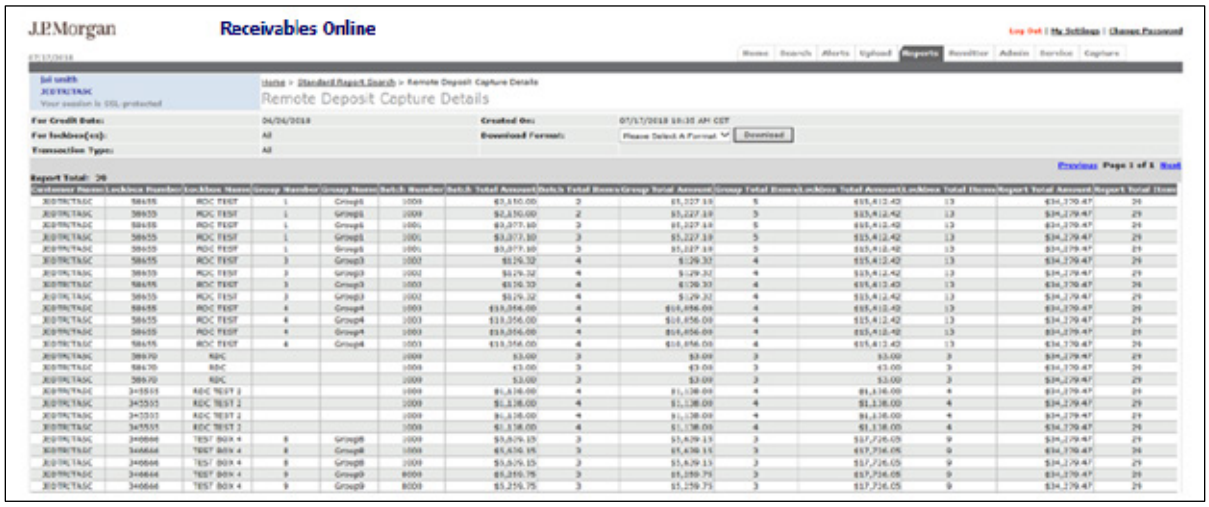


Figure 10.

4.5.2 Is the City's existing RDC terminal Digital Check Teller Scan TS240 compatible with your system?

J.P. Morgan recommends the Epson product line. The City can purchase and/or use your own scanning equipment if it meets the supported scanners requirements. For a current and frequently updated list of our supported scanners and the requirements, please visit https://www.jpmorgan.com/country/US/en/ts/remote-capture-resource-center

4.5.3 *If the City needs replacement or additional RDC equipment, what equipment would the Firm recommend? Indicate how many items these machines can handle.*

As stated above, we recommend the Epson product line. The Epson CaptureOne 60/100 or 90/100 is generally used for check-only scanning and the Epson DS-860 if you plan to scan checks and documents. Epson has indicated that their scanners have an expected lifetime volume of one million documents scanned. Detailed specifications regarding the recommended scanners have been provided in Appendix 5.

4.5.4 *Does the Firm verify that an item hasn't been previously deposited? If so, for how many prior days does duplicate detection service check?*

Yes, we use the data captured from the check, including the check amount and MICR line, to identify potential duplicates. When a potential duplicate check is identified, the user will be presented the current check and the originally deposited check to determine if the check is a duplicate.

Duplicate item

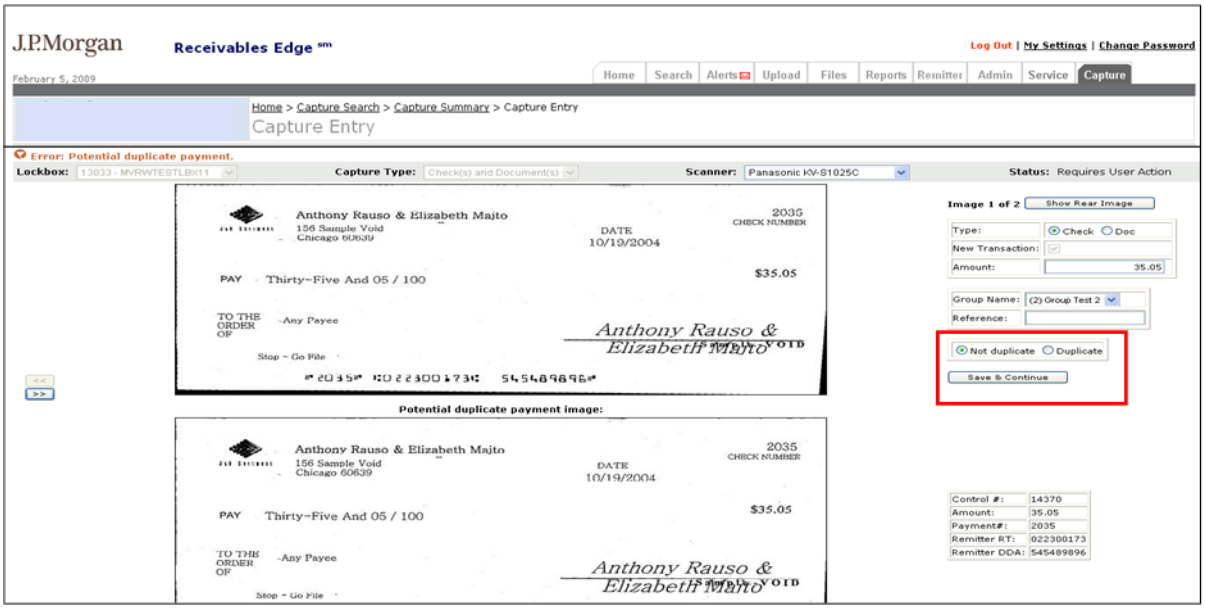


Figure 11.

J.P. Morgan retains images to detect duplicates for 14 calendar days.

4.5.5 *What is the ledger cutoff time for items processed by RDC to receive same-day ledger credit?*

Remote Deposit Capture deposits received by 7:00 p.m. PT will be processed same-day with ledger and availability based on endpoint.

4.5.6 *How will the City be notified of deposit corrections and/or adjustments for RDC items? Will the City receive a copy of the check image when there is a deposit correction?*

The remote capture process requires the user to balance the imaged checks to the total deposit amount of the batch, therefore deposit adjustments do not occur. Return and adjustment reports and alerts are available via Access Online.

4.6 *Image Cash Letter (ICL)*

4.6.1 Describe the Firm's ability to process ICL files.

Our image cash letter solution allows the City to image all your paper items and transmit them to us electronically for clearing. As part of this process, our solution reviews your check images and accompanying data to determine the optimum clearing method: Automated clearing house (ACH) or Image exchange, or substitute check processes. In addition, as we process a significant number of transactions as on-us items, we can process yours the same way to help you keep clearing costs down.

IMAGE CASH LETTER ADVANTAGES

- Clear checks through the most efficient method—ACH or Check Image Exchange.
- Reduce the costs, time and risks associated with transporting paper checks.
- Optimize funds availability by sending electronic images for check processing.
- Improve efficiencies and lower costs by streamlining operations.
- Mitigate check fraud by accelerating return item notifications.

Image Cash Letter - did you know?

- We are one of the first banks to exchange images of items electronically.
- We have invested more than $100 million to enhance our image infrastructure.
- As a founding member and board representative of The Clearing House, we are one of the first owner banks exchanging images of items electronically.

4.6.2 Describe the process the City will instruct its lockbox provider, Bank Up, to follow when submitting an ICL file.

Our Image Cash Letter process is as follows:

- The City captures paper check and related payment information as images. Checks must be U.S. dollar-denominated and drawn on U.S. financial institutions.
- The City sends the ICL, which contains mixed cash letter items in ANSI X9.37 or X9.100-187 file format.
- Upon receipt of an ICL file, J.P. Morgan reviews to verify:
  - The file contains proper content and is properly constructed.
  - Duplicate presentment of an item.
  - Image quality, including an image quality analysis (IQA) on each item for:
    - Dots per inch (DPI)
    - Document length
    - Document height
    - Missing corners
    - Streaks
    - Darkness
    - MICR match
    - Noise
    - Brightness
    - Contrast
    - Focus
    - Skew
    - E13b integrity

- J.P. Morgan provides automatic notification of a successful or unsuccessful file received. We will notify the City by email of any images that do not meet image quality standards.
- Images that fail the initial image quality test are deemed as suspect and manually reviewed to determine the deficiency, e.g., too light, failed contrast, unreadable signature, etc., is within Check 21 guidelines. If yes, they have a high probability of acceptance at the paying bank, so then pass back into the clearing process.
- J.P. Morgan uses a two-pass process to identify suspect items. The process determines whether items are acceptable for presentment to the paying bank or are nonconforming images (NCIs). We enter unacceptable images into the deposit correction system. For any NCIs, J.P. Morgan sends the City an email notification and a paper adjustment advice. The City can then either rescan the item or submit the item via paper deposit via Bank-by-Mail.

Image quality processing helps reduce adjustments, potential privacy violations and fraud. Quality checks verify that ICL-deposited items are correctly debited and credited to the proper account(s) for the precise value(s).

Image Cash Letter overview

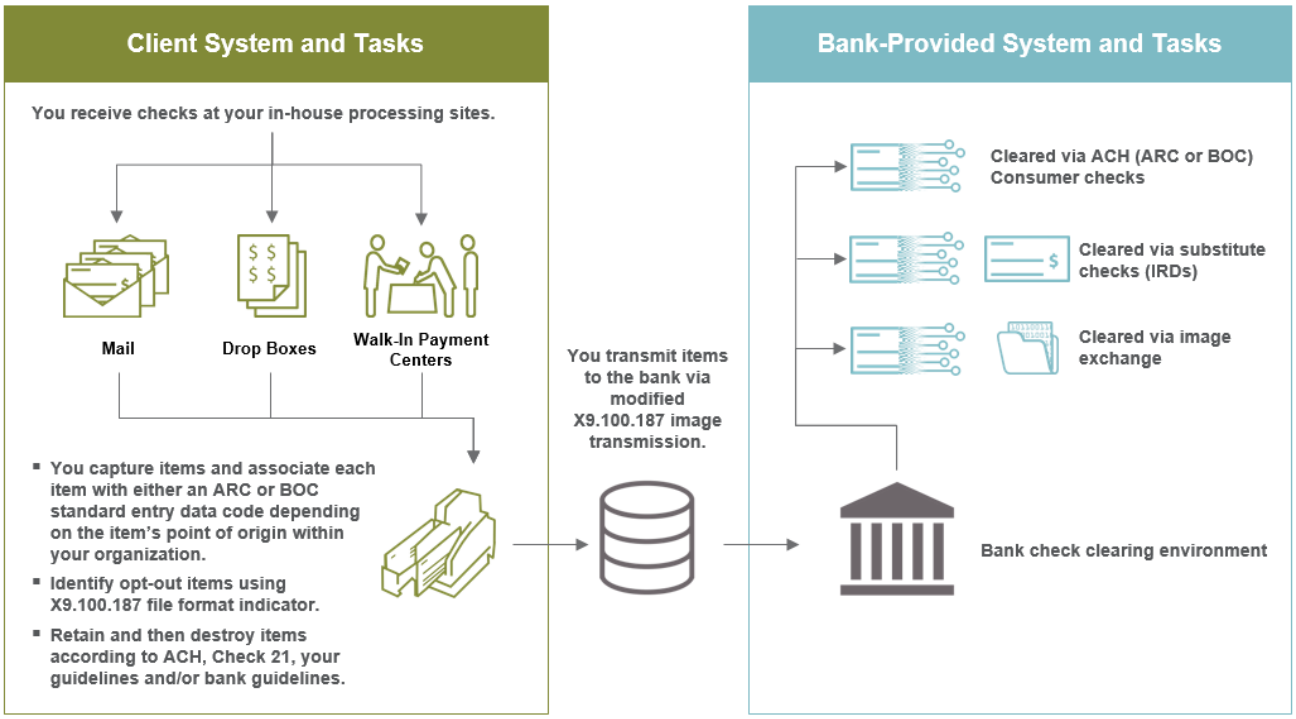


Figure 12.

4.6.3 Can multiple ICL files be transmitted during a single business day? If not, is there any warning that a prior file is being overwritten and will not be processed?

Yes, there is no limit on the number of files the City can send each day and no time restrictions between file transmissions. Please note that there is a 35,000-item limit on individual ICL files, which should not exceed 2GB. J.P. Morgan has established that as the largest volume level for a file that can be reconciled efficiently.

4.6.4 If an image doesn't meet image quality requirements, what happens to it? Is there an item repair interface that addresses image quality issues?

J.P. Morgan has established processes and standards to provide for the transmission of high-quality images. We use a two-pass process to identify suspect items, reducing day two processing and float costs. The procedure more accurately determines whether items are acceptable for presentment to the paying bank or are nonconforming images (NCIs).

Unlike some competitors that use a single-pass process, adjustments to the City's account occur only for items which have been manually confirmed as NCIs. Current suspect rates are less than 0.52% and NCI rates are less than 0.02%.

Image quality analysis (IQA) includes tests for:

- Dots per inch (DPI)
- Document length
- Document height
- Missing corners
- Streaks
- Darkness
- Noise
- Brightness
- Contrast
- Focus
- Skew
- E13b integrity
- MICR match

Images that fail the initial image quality test are deemed as suspect. The failed images are manually reviewed to determine if the items are within Check 21 guidelines. If so, the items have a high probability of acceptance at the paying bank and will be passed back into the clearing process. These items will incur an additional day of availability.

For ICL processing, as is the case among financial institutions throughout the industry, J.P. Morgan prefers the TIFF 6.0 CCITT Group IV black/white (B/W) format with minimum 200 dpi. We accept check images in other standard, industry-recognized formats, e.g., JPG gray scale (G/S). However, images that do not follow the prescribed format may be subject to transcoding by J.P. Morgan. This process converts an image from one format to another. In some cases, the overall image quality may be compromised, e.g., faint markings such as the background of a check may disappear.

We will work with you to develop, test and agree on acceptance criteria and assist in evaluating operational, risk and clearing impact.

Unacceptable images enter the deposit correction system. For any NCIs, we will send the City an email notification and a paper adjustment notice advice. The City can then either rescan the item or submit the item via paper deposit.

Our image quality processing method also helps reduce adjustments, potential privacy violations and fraud.

Additionally, J.P. Morgan was one of the first providers to implement a process to confirm that the check data associated with an image matches correctly to the item. The process includes duplicate file review against the database for a previous 45 days of transmission activity. To guard against duplication, we review file headers for volume, value, composition date and time, and sender details. Files also will not be processed if the header and/or detail records indicate zero-dollar value. Timely email and telephone notifications minimize service disruptions.

Pre-transmission support

To minimize suspect item and NCI charges, or unnecessary adjustments to the City's account, we recommend using internal image quality assurance (IQA) prior to sending a file. We are happy to discuss how to collectively minimize NCIs and optimize the image quality of checks.

A majority of ICL clients utilize some form of internal IQA to avoid excessive fees for poor quality images or unnecessary adjustments to accounts. As a result, J.P. Morgan's image quality suspect and NCI rates are extremely low: less than .52% and .02%, respectively.

4.6.5 What type of returned item reporting is available for items processed using ICL?

We can provide return items in an ANSI x9 formatted file and return items are also contained in the BAI2 file. Return reporting is offered through Access Online and can be downloaded in CSV or Excel format.

4.6.6 What is the deposit cut off time for same day ledger credit?

The City can transmit ICL files to J.P. Morgan 24/7/365. Any files received after 4:00 p.m. PT will be considered available for next-day ledger.

For reference, we will process and post deposits received on weekends and holidays on the next available business day. J.P. Morgan processes electronic deposits received by 2:00 p.m. PT on Sunday that evening, so the City may receive availability of funds Monday morning. The bank charges no additional fees for receiving and processing files on weekends or holidays.

4.7 Returned Item Processing

4.7.1 Does the Firm offer Represented Check Entries ("RCK") services?

Yes, Re-presented Check Entry (RCK) is a special redeposit process that converts eligible paper check returns into an ACH-formatted debit record to be re-presented via ACH. Compared with paper redeposit, RCK rules allow an extra presentment where the City may choose one paper redeposit followed by a final ACH presentment or two ACH presentments. RCK can accelerate the process, and may reduce the costs, of returned check collection.

J.P. Morgan processes deposited checks through normal channels. Eligible checks returned by the paying bank are converted to a Nacha-formatted ACH debit record for representment as an ACH. The City may choose the date of the first ACH debit (e.g., on the next business day), a specific number of days in the future (up to 30 days), a specific day of the month (such as the 1st or 15th) or the end of the month.

The ACH processing unit picks up the ACH file and sends out ACH debits on the City's behalf. If there are any items that are not paid through ACH presentments, ACH debits the City's account and notifies the City of those items. The following is an overview of the process, indicating industry average percentages; actual clearing percentages may vary.

RCK process overview

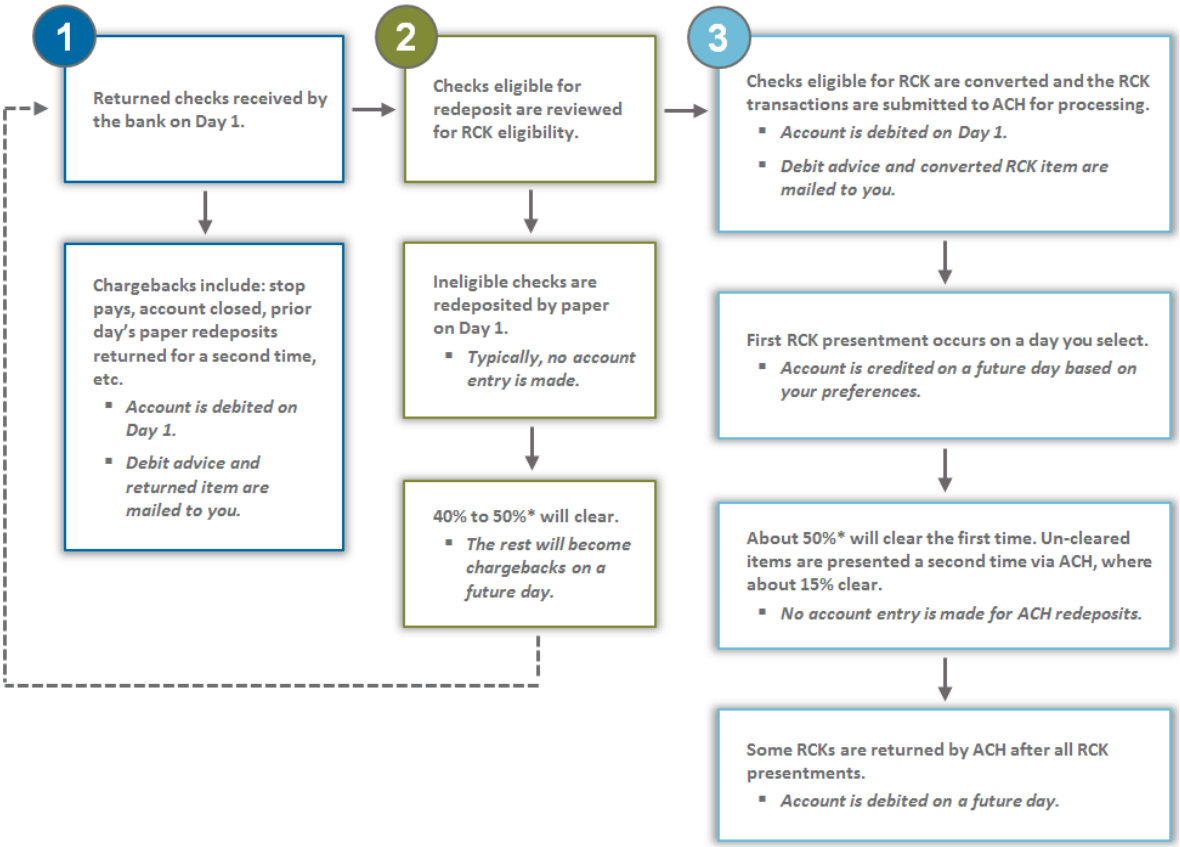


Figure 13.

** Percentages are industry averages; actual clearing percentages may differ.*

The City must disclose to check writers that the check may be converted to an electronic debit.

Only checks that meet the following criteria are eligible for RCK:

- Returned for NSF or uncollected funds
- Written for an amount less than $2,500
- Drawn on a consumer bank account
- Not drawn on a Federal Reserve Bank or Federal Home Bank
- Contain a preprinted serial number
- Dated fewer than 180 days prior to ACH debit transaction

4.7.2 Can the Firm provide online access to electronic images (front and back) of returned items to the City? How soon after an item is returned can these images be accessed?

Yes, J.P. Morgan makes images of returned and redeposited items available the following day through Access Online's image archive, Check Deposit Return Images.

4.7.3 ***Provide a screen shot of the details available for a returned check. (Note: Please include this returned check screen shot in the body of your proposal response versus referring to an Attachment or Appendix.)***

Returned check details are provided to the City through both Access Online and Receivables Online as shown in the screen shots below.

Returned check details via Access Online

International Global, Inc. J.P.Morgan

** For Information Purposes Only. **

Returns and Exceptions Report - Account

Post Date: Prior Day

Status
ACHNOC, ACHRECLAIM, ACHREDEPOSIT, ACHRETURN, ACHREVERSAL, ACHUNKNOWN, CHKCHARGEBACK, CHKREDEPOSIT, CHKRCK

Data Display
Display only accounts with activity
Page break by Account
Credits and Debits

Account Group: Treasury Group
Account Name: International Global, Inc.
Account Number: 01234567890123

Last Updated: 04/19/2012 09:31 AM EST
Currency: USD U.S. Dollar
Bank: 10200101 - JPMorgan Chase Bank, N.A. (CO)

Post Date	Original Date	Company / Location ID	Status	Return / Reject Reason	Credit Amount	Debit Amount
04/19/2012	04/16/2012	234567890123	ACHRETURN	R03 NO A/C UNABLE TO LOCATE CHECKING	863.00	
	Beneficiary ID 1234567890123			**Originator** TREASURER		
	Beneficiary Name ABC Company			**Bank Trace** 456789012345678		
	Beneficiary Bank 23456 - 1234546			**Customer Trace** 567890123456789		
	Beneficiary Account 123456789012345678			**Batch Description** TAX REFUND		
04/19/2012	04/16/2012	8151	CHKRCK	01 NSF 1ST PRESENTMENT		150.00
	Check Number 1508			**Maker Bank** 11300846		
	Maker Name ABC Company			**Maker Account** 1234567890		

OVERALL TOTALS:	04/19/2012		Total Items	CCY	Total Credits	Total Debits
	Status Totals	CHKRCK	1	USD	150.00 1 Item	
		ACHRETURN	1	USD		863.00 1 Item

Returns and Exceptions Report
Created On: 02/13/2012 12:27 PM EST

Page 1 of 5

Figure 14.

Returned check details via Receivables Online

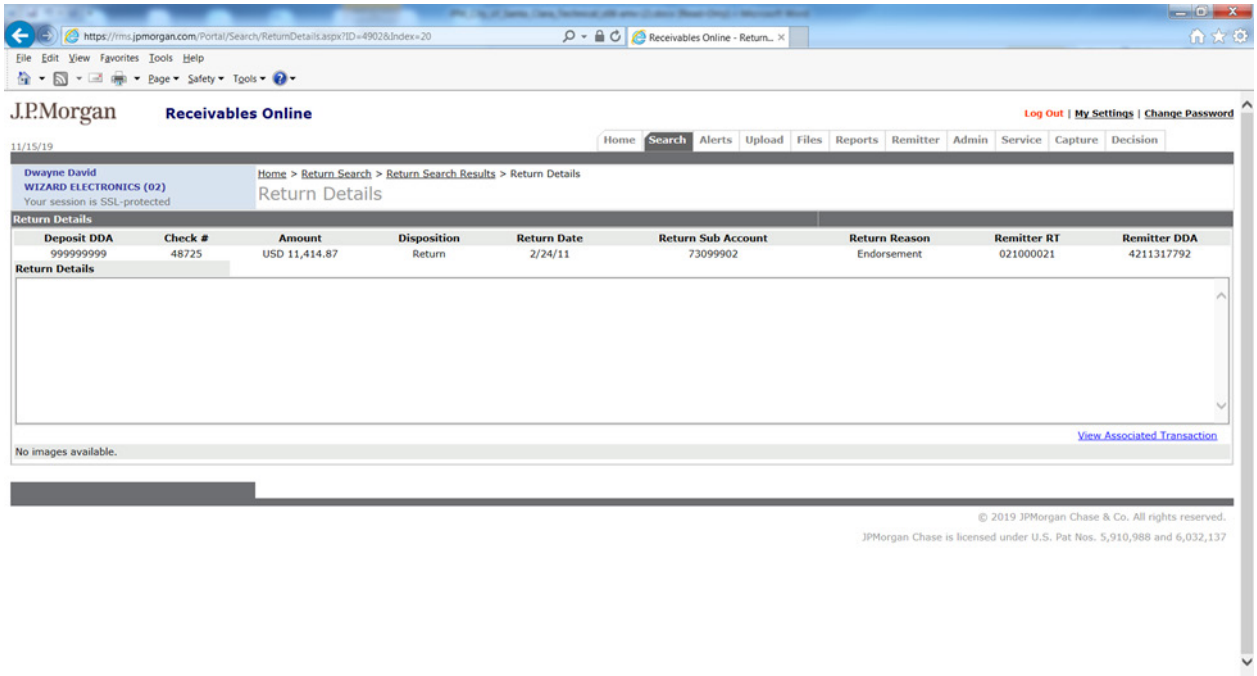


Figure 15.

4.8 Availability of Deposits

4.8.1 How does the Firm determine and calculate availability of deposited items? Does the Firm calculate availability by item or formula?

The availability schedule determines availability for each item. Availability is based on the drawee bank routing/transit number, the time the deposit is processed, fractional float assignment, and in some instances, the dollar amount of the item.

With one of the largest check-clearing networks in the country, the bank offers accelerated funds availability. J.P. Morgan clears more than 99% of all deposited checks as images through approximately 22,000 endpoints.

4.8.2 Does the Firm give immediate availability for on-us items?

J.P. Morgan calculates availability by item according to the schedule provided in Appendix 6.

4.8.3 Provide a copy of the availability schedules the Firm proposes to use for the City, including vault deposits, RDC and ICL.

Please see the availability schedules provided in Appendix 6.

4.9 Check Disbursements / Positive Pay

4.9.1 Does the Firm offer payee positive pay? What types of positive pay are available (e.g., teller positive pay, payee positive pay, etc.)

Yes, in addition to traditional positive pay services, J.P. Morgan offers both payee name and teller line positive pay.

Payee verification

We recommend the City use positive pay payee verification to provide an additional layer of fraud prevention protection to your disbursement accounts. For payee verification, the City provides the bank with payee names in your check issue file transmission, online file upload or by manual entry on Access Online.

While positive pay matches the MICR information of your presented check to the issue file, payee verification takes the additional step of validating that the payee name matches issue file payee information. Our payee name review digitally interrogates the payee name and looks for alterations or additions above, below or to the right of the payee name that would change the payee identification. Mismatched items are visually evaluated to eliminate digital interrogation reading errors, and remaining items are sent to the City in the daily positive pay exception reporting for your decisioning.

Payee name positive pay

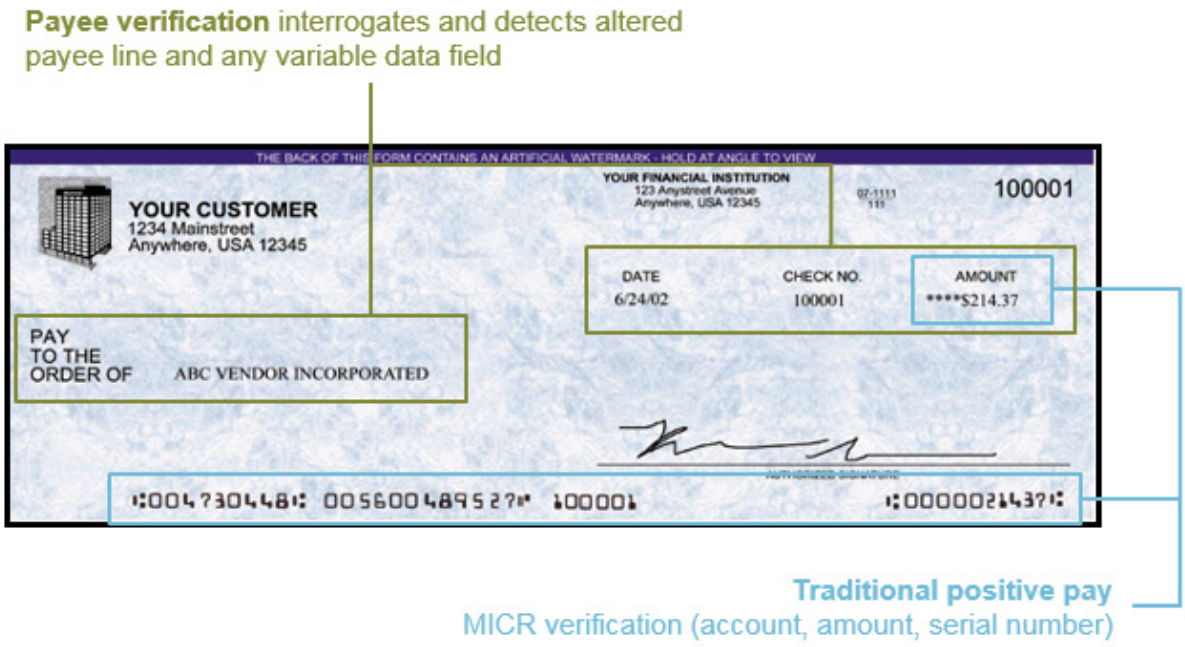


Figure 16.

Teller line positive pay

Teller line positive pay is the strongest defense available to prevent check fraud. Our teller line systems are updated within one hour of receipt of the City's issue file we update our teller line system. When a check is presented for payment at a Chase teller window, the teller system determines the validity of the issued check prior to payment. We deny encashment on any items not found as matching open entries on the issue file. Checks deposited at a Chase ATM are screened against the positive pay records.

4.9.2 Which check fields are matched for the various types of positive pay?

J.P. Morgan reviews positive pay accounts to detect the following exception situations:

- Paid-no-issue
- Duplicate paid items
- Maximum dollar (by request)
- Minimum/maximum serial number (by request)
- Stale-dated issue (by request)
- Invalid serial number
- Cancel/void prior to payment
- Payee name does not match issue
- Paid amount does not equal issue

4.9.3 Is payee information a searchable field within the Firm's online reporting system (i.e. can you enter "ABC Company" and any disbursement checks to "ABC Company" will be retrieved)?

Yes, payee information is an indexed field that can be searched from Access Online global search bar.

4.9.4 Can an e-mail notification be sent to specific users alerting them that there is an exception item to review? What other notification methods are available?

Yes, using "PUSH" technology, Access Online provides a daily positive pay email notification that indicates accounts with exception items (or discrepancies) or "no items today," providing more complete reporting to the City. Notification is sent by 11:00 a.m. PT.

The City can optionally receive a reminder email notification. If exceptions still require a decision at 3:00 p.m. PT, we will send out a reminder email notification indicating that the bank is awaiting a final payment decision. A default decision is applied to any positive pay exception item that is still awaiting a payment disposition by 4:00 p.m. PT. While the typical default is setup as return, the City can specify specific default parameters during implementation.

4.9.5 At what time will the City receive information on exception items? What is the latest time that current day exceptions are reported? How much time will the City have to review discrepancies and notify the Firm to accept or reject?

If there are exception items to view, the authorized the City user can log-on to Access Online or Access Mobile to review the list. Once logged on, authorized users click on the check number of each item to view images of the front and back of the check, select the "pay" or "return" button for each item (or select the "pay all" or "return all" button), and submit the decision to the bank. The City has until 4:00 p.m. local bank time to notify the bank of your pay/no pay decisions.

4.9.6 What are the options and timing for transmitting check issuance information to the Firm for positive pay services?

With Access Online positive pay, the City provides the bank with a positive pay issue file containing check amounts and serial numbers. Issue data can be simply and flexibly supplied to the bank via file transmission, online upload or manually keyed into Access Online. The deadline for the City to submit manual entry or file upload via Access Online is 7:30 p.m. PT. The deadline for the City to transmit check issuance files via direct transmission to the bank is 7:45 p.m. PT.

4.9.7 How quickly will transmission files of additional checks and/or recently voided items be available across the Firm's platform (including branch tellers)?

Within one hour of receipt of the City's issue file, we update our teller line systems. This time frame also applies to manually added issues and voids.

4.9.8 Does the Firm offer the ability to manually enter one-time check disbursements issued during the day outside of the regular batch file? How quickly will the teller line receive this information?

Yes, the City can submit manual items via Access Online. As stated above, our teller line systems are updated within one hour of receipt.

4.9.9 How is payee information captured from the physical checks? What steps does the Firm take to prevent exception items being flagged due to erroneous capture of payee information?

With payee verification, checks are first matched in positive pay. After it passes that process, it continues to payee validation processing. Payee verification looks at the items with digital interrogation, where it matches the payee name on the issue file to the check presented. Items that do not match are sent to our operators to manually review and accept or reject/send to the client for final decision. These exceptions are incorporated with Access Online and include check images for your review and decision.

4.9.10 Can stale-dated checks be reported as exception items? What type of exception item are stale-dated checks identified as? How are stale-dated checks identified? (i.e. Are these checks automatically removed from the issue file after a set number of days or does the City need to send a file removing the checks from the issue file?)

Yes, the City can use J.P. Morgan's stale-date feature to return checks that are presented for payment past a City-determined number of days from the issue date. Your account must be subscribed to positive pay and we must receive the issue record in advance of the check being presented for payment.

For positive pay accounts, these checks appear as exceptions on the daily positive pay exception report, which allows the City to decide whether each item should be paid or returned. The City may also have the Access Online system automatically return all items prior to having them reported for your review. The valid number of days will be determined by the City during the implementation process.

Stale-dated checks are not removed as issues. To remove the item as an issue, the City needs to send a positive pay file and identify applicable stale-dated checks as a cancel.

4.9.11 If a check is deposited by the payee using mobile technology and the payee attempts to deposit the item a second time, will your Firm's positive pay service identify this item as an exception, or will it be automatically returned as a duplicate item? How does this item appear in the City's daily reports?

In this circumstance, the City would see second item as part of their positive pay exceptions as a duplicate requiring a decision. J.P. Morgan recommends that the positive pay setup has a default setting of return in case no decision is made.

4.9.12 *Is the Firm able to process payee positive pay when the check has payee name information on one or two lines?*

Yes, J.P. Morgan can accommodate payee name data up to 100 characters.

4.10 Stop Payments

4.10.1 *What initial term options are available for stop payments?*

The City can place stop payments online via Access Online, either directly from within the “Stops” function or more efficiently by using the “Inquiry” function where the check numbers are validated against the issued items. You can send a stop (or revoke) payment transaction within the positive pay issue files, allowing stops to be processed in batch.

Stop payment requests remain in effect for one year and are renewable for an additional six years.

Access Online stop payment page

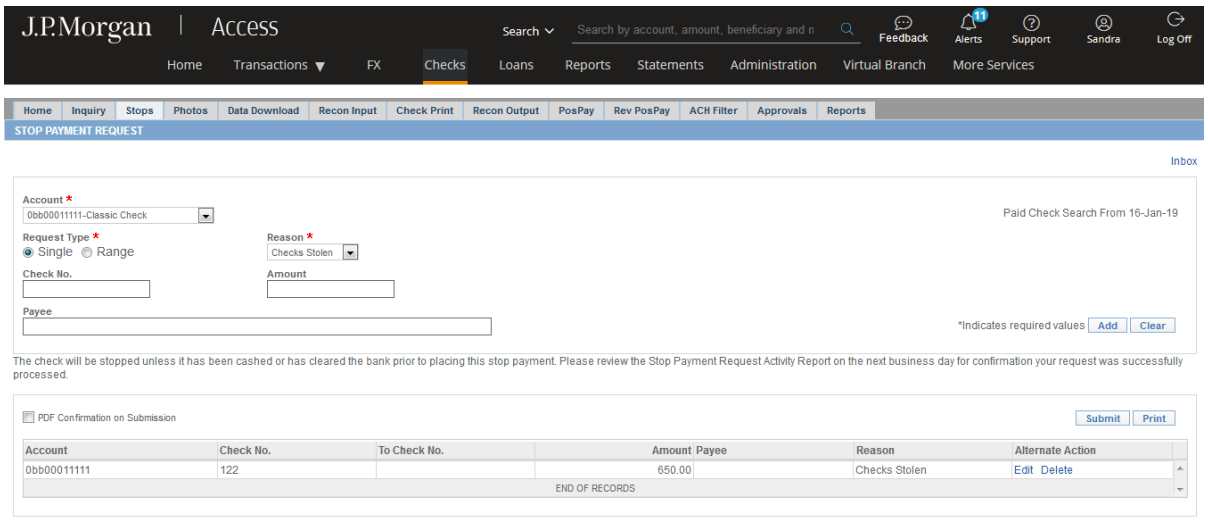


Figure 17.

4.10.2 *Are stop payment requests effective immediately? If not, how long does it take for a stop payment request to become effective?*

Once the stop payment request is submitted in the proper format through Access Online, it will be processed within one hour. The system can provide confirmation online of successful placement of the stop payment request. The City can print or download details as needed. Furthermore, a stop payment activity report is available through Access Online. The final status of the item at the time the stop was placed is available on the activity report the following business morning.

4.10.3 *Will the system automatically verify if a check has been paid before processing the stop payment?*

Yes, the system will automatically check back within 90 days (extended retention periods are available) if the item has posted before accepting a stop submitted via the Stop Payment Request or Check Inquiry page. If the item has paid, the user will be notified, but can choose to continue to place the stop.

J.P. Morgan encourages the City to use the Access Online Inquiry function to research the full seven-year online paid check history, then use the stop payment link to place the stop payment.

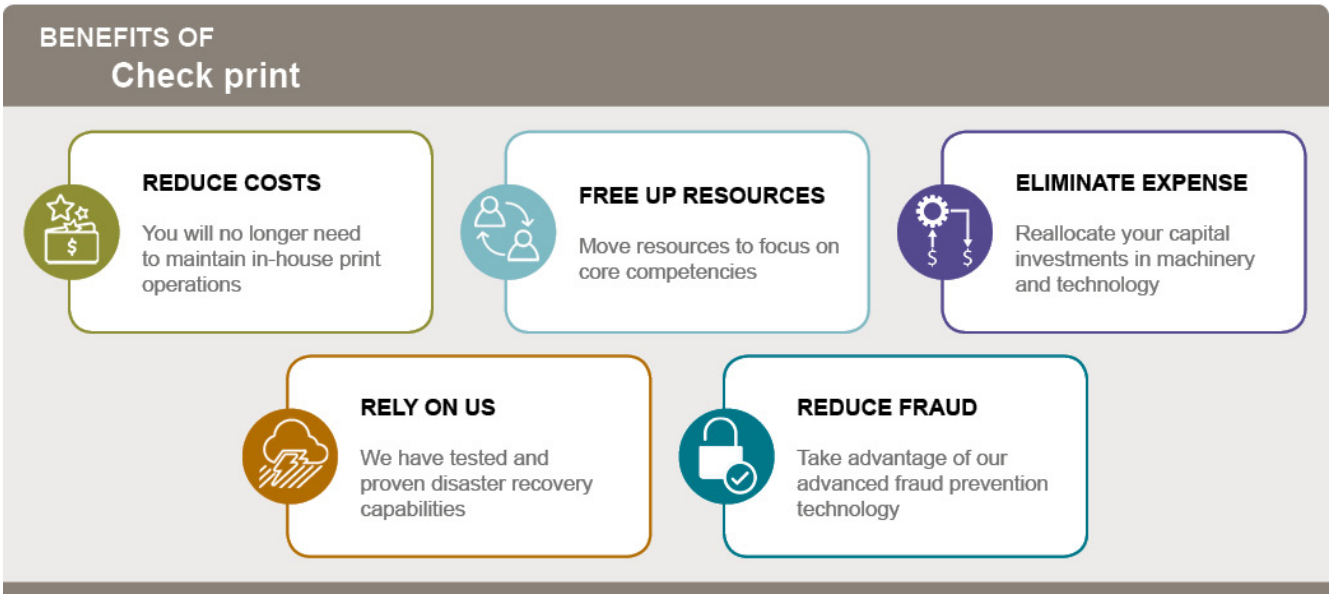
4.10.4 Is there a report that lists stop payments that are set to expire?

Yes, the City has access to multiple stop payment reports via Access Online, including a report which shows expiring stop payments.

4.11 Check Printing & Mailing Services (Optional Service)

4.11.1 Describe the Firm's experience in providing check-printing services.

J.P. Morgan's Check Print service provides the City with a comprehensive print-to-mail solution for processing large volumes of checks. We have offered check print and dispatch services for more than 20 years. Designed to help you lower operating costs, our service removes the City's need to maintain printing equipment and unnecessary overhead associated with printing checks or remittances advices.



4.11.2 How will the City transmit check payment information to the bank?

The City can submit check print instruction files in multiple ways depending on your requirements:

- Direct transmission
- Single mixed payment file via Host-to-Host Payments
- Web file upload or check direct entry through Access Online

We send automatic file confirmations to authenticate each transaction and alert you to issues. Validated files are routed to one of our two advanced print facilities where we then print, insert, and forward checks and remittance details to you or your payees via the U.S. mail or courier by the following business day.

4.11.3 What is your cut-off time for receiving files for vendor checks to be printed on the next business day?

J.P. Morgan offers both same-day and next-day print and mail solutions. The standard offering is next-day print, based on a Monday through Friday processing schedule (excluding holidays). The bank prints checks throughout the day.

Check print cutoff times	
Direct Transmission	• Same day: 5:30 a.m. PT, Next day: 5:30 p.m. PT
Mixed Payment File	• Same day: 5:30 a.m. PT, Next day: 5:30 p.m. PT
Access Online	• Same day: 8:30 a.m. PT, Next-day 9:00 a.m. PT

J.P. Morgan sanction screens all check print requests. Checks with questionable information will not print until the item passes sanction screening. Therefore, questionable information on the check may cause the check to be delayed for print. Reports indicate if an item was delayed for print due to sanction screening.

4.11.4 Can the check print file include a future date for printing and mailing of the file of checks or individual checks within the file (i.e. can a file be transmitted today, but the checks are not printed and mailed on a same day or next day basis)?

J.P. Morgan does not warehouse transactions for future check print needs.

4.11.5 What controls do you employ to assure safety of customer data transmitted, check stock, and safeguarding of the checks before they are mailed?

We have an extensive network of controls and safeguards surrounding our check print service.

Transmission controls

Host-to-Host transmissions employ industry-standard encryption and authentication standards, both for inbound and outbound transmissions. To provide secure and reliable client interaction, security is divided into two areas: Transport and Payload. We utilize SSL and SSH for transport security and either PGP or x.509 for payload. Additional details are confidential and proprietary to the firm and are not for public disclosure.

Check stock

Our new check paper stock provides security features such as chemical sensitization, invisible fluorescent security fibers, security watermark and security alert verbiage.

Safeguards

J.P. Morgan has instituted strict controls in our print, insertion and dispatch processes to secure all items processed in our facilities. Central to this is our Automated Document Factory (ADF) solution

which tracks each item throughout the entire print process within our facility, guarding against any lost check scenarios.

4.11.6 Describe the process that you would use to verify that all records have been received and processed.

Automated control total verification for EDI ANSI X12 formatted files is available at the City's preference. Control total verification will include the total amount of the file and the total number of transactions.

If control totals do not match the file totals or control totals are not received when they are expected, the discrepancy will be reported to the client contact established during implementation or modified based on a previously-established authorization. Discrepancies must be resolved before J.P. Morgan will process the file.

4.11.7 What quality controls are in place to prevent errors in printing?

Our quality controls throughout the bank are an area of continual focus and improvement for us. With check print, as with all services, we will not sacrifice the accuracy of our work for any other consideration. For purposes of audit control and security, our standard check print process uses blank roll feed stock, with digitized logos and signatures applied electronically to each item as it is printed. We recognize the importance of printing high quality checks to maintain low check reject rates. As such, samples of checks are requested periodically throughout the day by the Quality Control area. Sample checks are tested for both MICR quality and conformity to the established check specifications. Should the checks not pass the MICR quality test, then the checks are not permitted to be mailed. They are securely shredded, reprinted and quality checked again for proper adherence. If the issue is determined to be file-based, internal J.P. Morgan technology contacts are engaged to troubleshoot and resolve the issue.

4.11.8 What are the hours of your printing operation?

J.P. Morgan's check print services process operates five days a week, Monday through Friday. The City can send files for processing at any time, 24 hours a day, seven days a week, 365 days a year.

If received on a bank holiday, files will be processed the next business day. If files are received over the weekend, they will be held for Monday processing.

4.12 ACH Processing

4.12.1 What ACH file transmission options are available?

We offer ACH origination via Host-to-Host mixed payment file, direct transmission and Access Online. For the City, we recommend origination of ACH transactions as part of your integrated payables solution, Host-to-Host Payments.

4.12.2 When does the Firm need the file from the City for payments to be made on a same-day, next-day and 2-day settlement? Please complete the following table:

	Same-Day	Next-Day	2-Day
Deadline for File Transmission	9:30 a.m. PT (prefund) or 10:15 a.m. PT	7:00 p.m. PT	7:00 p.m. PT[1]
Deadline for Online Initiation	9:00 a.m. PT (prefund) or 10:00 a.m. PT	7:00 p.m. PT	7:00 p.m. PT[1]

Note: If later deadlines are required, this should be discussed with your relationship team.

1 ACH PPDs must be received two business days in advance.

4.12.3 What is the latest time the Firm's report of current day ACH credit/debit postings to the City's accounts is available?

ACH transactions received from the ACH network are available on Access Online by 8:00 a.m. PT. Throughout the day we will update current-day information reporting for "on-us" or book-to-book transactions originated by other J.P. Morgan originators.

4.12.4 What are the procedures and deadlines for correcting or cancelling a previously initiated ACH transaction?

The City can initiate online transaction reversals in a secure manner, using Access Transaction Services, or by initiating requests via file transmission. You may delete an entire file by contacting Ana Prieto or the ACH Transmission Services Group by phone at (813) 432-3800.

J.P. Morgan will endeavor to delete a file or item prior to the bank releasing the file or item to the ACH network. According to NACHA rules, reversals must be made within five business days after the settlement of the original ACH entry.

4.12.5 Confirm that the Firm is willing to establish an ACH daily exposure limit of no less than $25 million for the City.

ACH service is subject to and contingent upon credit approval according to the bank's current credit policies for credit and debit applications. J.P. Morgan will discuss this with the City during the implementation process to determine what dollar values to expect and will endeavor to provide sufficient lines to cover ongoing ACH daily exposure.

4.12.6 What would happen to a file if the City exceeded its daily exposure limit?

The bank sets credit and debit limits to help facilitate seamless transaction processing, including a cushion over a client's normal file size, and then monitors the client's ACH activity trends to determine if limits are appropriate. Although clients typically are not informed of their limit, it is designed to facilitate uninterrupted service. When a limit is approached or exceeded, a credit officer and your relationship manager, Bev Correa, will reach out to the City to confirm process of the transactions and to determine if a greater limit should be set going forward.

4.12.7 Describe controls to prevent processing of duplicate files and procedures in the event a duplicate file is processed. Describe customer support available to assist the City with file processing issues.

The firm leverages a proprietary infrastructure for Host-to-Host. As part of our corporate technology and infrastructure policy all transaction files received by or sent from the firm have an audit trail. Once payment files are transmitted and received by Host-to-Host, they can be tracked and traced within the firm's environment. Host-to-Host can also provide AFL with a confirmation for those files received,

indicating whether the files and transactions have been received for processing or rejected, with the reason for such rejection. Host-to-Host also supports duplicate checking. Details regarding the controls are confidential and proprietary to the firm and not for public disclosure.

The City's client service professional, Ana Prieto, is your contact for all service-related issues.

4.12.8 Can transactions be added online for future processing dates? What is the Firm's maximum retention for future dated transactions?

Yes, ACH items can be future dated.

For origination files received via direct transmission, the maximum retention time for future-date transactions is 90 days. Transactions are maintained for online inquiry for 180 days after the effective dates.

ACH payments can also be entered via Access Online and warehoused for up to 60 days in advance of the value date.

4.12.9 Can same day ACH capability be available within the Firm's online platform but not available for file transmissions sent by FTP? (Note: The City may find this feature beneficial but is concerned that an inadvertent mistake may result in same day ACHs being originated resulting in unnecessary costs and a negative impact on cash flows.)

Yes, we can make same-day functionality available for either one platform or the other if the City chooses to leverage same day ACH through only one origination method.

4.12.10 Does the Firm provide automatic file receipt acknowledgements? If so, how is the acknowledgement transmitted?

Yes, J.P. Morgan provides automatic acknowledgements to confirm the receipt of your direct transmission files. The City may choose to receive any of the following acknowledgement files:

- The **ACH File Receipt Notification Service** is available to clients who provide J.P. Morgan with Direct Send ACH files and sends the City an email notification that your submitted ACH file was either successfully received by the ACH back office and validated or rejected for further processing. The bank can send email notifications to a maximum of 10 corporate email addresses (personal email addresses are not supported) and does not include notification of successful ACH processing of client files.
- The **ACH Acknowledgement File** automatically transmits a copy of the City's original File Header (1) record and File Control (9) record allowing you to reconcile back to your original ACH file processing records.
- The **ACH Companion (Mirror) File** provides a complete copy of the original incoming ACH NACHA detail payment file received by J.P. Morgan. This re-confirms the individual payment instructions that will be processed and is often used as a reconcilement file. The file reports any ACH rejects or returns back to the City within one to three business days.
- The **ACH Transaction Summary Report (Journal)** is created post-processing and summarizes the settlement results and totals for either an individual file or for the entire business day. The bank sends the report to the City via secure email or direct transmission delivery within 90 minutes of receipt of the ACH initiation file. The acknowledgement includes item count and dollar amount.

4.12.11 Is the City required to submit a control total of an ACH batch? How would the City communicate ACH control totals to the Firm (i.e. phone, online, email)?

No, the City is not required to submit control totals separately. J.P. Morgan prefers to receive unbalanced ACH files for us to create the offsetting ACH transaction. We can then provide automated ACH Acknowledgment files, as described above.

4.12.12 How are returned and rejected ACH transactions handled? What information does the Firm provide to assist in identifying returned and rejected ACH transactions? When is this information available?

Returned funds post at the end of the banking business day. Prior to posting, information concerning these items is available on J.P. Morgan's current-day report. To confirm that a return belongs to the City, J.P. Morgan will perform edits on account number, date, individual ID and trace number.

ADVANTAGE FOR THE CITY

We have carefully designed our return item process to minimize the problems exception items can cause.

Return item processing

J.P. Morgan carefully designed our return item process so that it acts as an interface to help provide the City with accurate data. This was done to minimize the problems associated with exception items.

The bank may provide return items to the City via direct transmission, encrypted email or online via the Return and Exception Report from Access Online. J.P. Morgan strongly recommends that the City utilize data transmission options to reduce delivery problems and minimize the time between the return and the time to receive notification of a return.

To help provide the City with complete and accurate data on each return, J.P. Morgan uses key fields from the returned items to retrieve the original record sent to the bank from a historical file. This file contains records for ACH transactions initiated in the past 15 months.

- If the search does not locate an exact match, the entries are declined to the Receiving Depository Financial Institution (RDFI) for correction and resubmission.
- If the correct item is found, data from the original record is supplied to the City with the reason for the return.

The bank issues one debit per entity or application against the City's account for the total of the return file. This simplifies reconciliation, because all returns are in a single return transmission.

Returned credits also are included in the return data file and will be credited to the City's checking account with a separate entry per company ID. Return entries are not netted against one another or against the new item settlement.

4.12.13 Provide a screen shot of the information returned for an ACH Notification of Change (Note: Please include this screen shot in the body of your proposal response versus referring to an Attachment or Appendix).

Returns and Exceptions report

ABC Company LLC
** All values are subject to verification and adjustments. **
Returns and Exceptions Report - Account

J.P.Morgan
Original Date: 29-Nov-2016

Date Type: Original Date
Status: All
Data Display: Only Include Accounts with Activity, Page Break by Account, Credits and Debits, Include Multi-Byte and Accented Characters, Confidential and Non-Confidential

Account Group: **Operational Accounts**
Account Name: **ABC COMPANY LLC**
Account Number: 5bbb91234
Currency: USD - US Dollar
Bank: 02100002 - JPMORGAN CHASE NEW YORK

Last Updated: 30-Nov-2016 06:01 AM EST

Post Date	Original Date Reject Date	Company / Location ID	Status	Return / Reject Reason	Credit Amount	Debit Amount
30-Nov-2016	29-Nov-2016 29-Nov-2016	ABCDEF11	ACHREDEPOSIT	N01 FIRST TIME REDEPOSIT 122715 CHECKING		192.52
	Beneficiary ID: ABC9bbb45678 Name: XYZ GROUP, Bank: ABCABCDE - ABCDEF11 Account: 9bbb45678			**Originator:** ABCD INC. **Bank Trace:** 00000000000 **Customer Trace:** 2bbb67891 **Batch Description:** RDP RETRY		
30-Nov-2016	29-Nov-2016 29-Nov-2016	4bb789123	ACHREDEPOSIT	N01 FIRST TIME REDEPOSIT 040316 CHECKING		184.18
	Beneficiary ID: XYZ2bbb67891 Name: ABCDE LIMITED Bank: ABCZYZ11 - XYZABC12 Account: 5bbb91234			**Originator:** ABCD INC. **Bank Trace:** 3bbb78912 **Customer Trace:** 000000000 **Batch Description:** RDP RETRY		
30-Nov-2016	29-Nov-2016 29-Nov-2016	4bb789123	ACHREDEPOSIT	N01 FIRST TIME REDEPOSIT 0 CHECKING		27.00
	Beneficiary ID: A00001bbb56789 Name: NAME GROUP, Bank: ABCXYZ34 - XYZABCDE Account: 7bbb23456			**Originator:** ABCD INC. **Bank Trace:** 021000026512115 **Customer Trace:** 021000020918541 **Batch Description:** RDP RETRY		
30-Nov-2016	29-Nov-2016 29-Nov-2016	4bbb89123	ACHREDEPOSIT	N09 FIRST TIME REDEPOSIT CHECKING		234.31
	Beneficiary ID: A0006bbb12345 Name: XYZ FINANCIAL CO Bank: ABCDEFG - ABCXYZ55 Account:			**Originator:** BLANK MUTUAL **Bank Trace:** 000000000 **Customer Trace:** 6bbb12345 **Batch Description:** RDP RETRY		

Returns and Exceptions Report - Account
Created On: 15-Feb-2017 07:24 AM EST

Page 1 of 2

Figure 18.

4.12.14 If an individual ACH transaction within a file is rejected, will the entire file be rejected and not processed? How will the individual rejected ACH transactions be communicated?

ACH files that are validated by our back office are processed per the City's instructions. Individual transactions that are rejected or returned will be reported back to you through the Access Online Returns and Exceptions report detailed above.

4.12.15 How can the City gain access to addenda information (i.e. CCD, CCD+ and CTX) for incoming ACH transactions? Can this information be viewed online with current and previous day reporting, or does the City need to download special EDI reports?

ACH Addenda is included on Access Online reports and export files (e.g., PDF, BAI2 and MT940) in ANSI X12 format.

4.12.16 Describe how you will work with the City to comply with changes in NACHA Operating Rules, such as the March 19, 2021 requirement for instituting Supplemental Fraud Detection Standards for WEB Debits (i.e. Giact, Early Warning, etc.).

The City is encouraged to become familiarized with NACHA rules and any subsequent rule changes. Updates to rules are posted on the J.P. Morgan website, and are periodically communicated to our clients through customized mailings. The complete set of rules is available for free to all clients at www.achrulesonline.org by selecting the Basic User option during registration.

The City's treasury management officer, Andre Johnson, will advise you of any updates that may arise related to NACHA rules changes and their implications.

J.P. Morgan also offers web-based ACH training to the City on a quarterly basis. Open to all clients, classes are free of charge, and clients who attend will earn up to 2.4 Accredited ACH Professional (AAP) credits per course for continuing education. The classes currently consist of four webinars. Clients can choose to attend one, two, three or all four in the series:

- ACH Originator Responsibilities
- ACH Risk Management
- Payments and Innovation
- Principles of International Payments

4.12.17 Do you provide any validation services on ACH credits initiated by the City to ensure the correct payee is paid? If not, what best practices would you recommend?

As a value-added service, we would be glad to discuss Early Warning (EWS) and Real-time *Payment Chek* ® with Account Owner Authentication in more detail upon award.

Early Warning Services

With Early Warning's advanced analytics, the City can mitigate potential fraud risk and operational investigations of bad account data by validating payee account information in real time before transaction initiation.

How the solution works

The City will send inquiries to Early Warning's National Shared Database℠ Resource, the industry's most current and accurate source of collaborative financial data. Early Warning will return a response with specific data for each inquiry in real time.

Real-time *Payment Chek* with Account Owner Authentication will:

- Identify open/valid accounts at point of transaction
- Verify and match account owner and account signatory

EARLY WARNING SERVICE BENEFITS

- Verifies that the account exists
- Determines account status
- Determines an account's associated risk
- Determines the likelihood of an item being returned
- Reduces unauthorized ACH transactions and administrative ACH returns
- Verifies account owner information (Account Owner Authentication)
- Does NOT provide account balances

- Provide specific condition of that account (open, closed for cause, etc.)
- Provide immediate notification of high-risk payments

Early Warning Services process

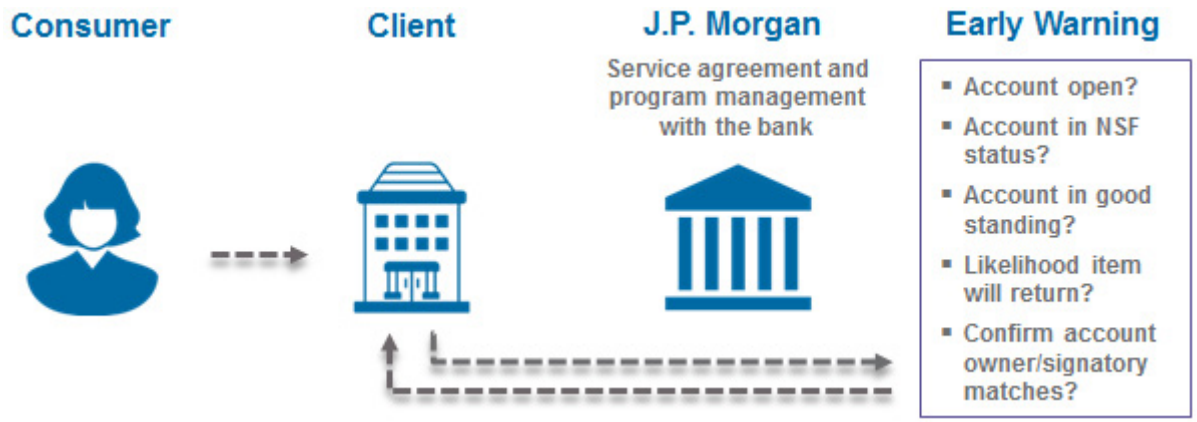


Figure 19.

The service is typically used by large volume ACH originators. Early Warning is expected to be generally available in the second half of 2019. Please note that product availability, features and functionality are subject to change.

Breadth of accounts verified

The Early Warning network has the scale and capacity to verify more than 700 million accounts across 3,000 financial institutions and thousands of corporate contributors throughout the United States. The specific participating financial institutions and corporate contributors are confidential.

4.13 Fraud Protection & Controls

4.13.1 What controls are in place to protect against lost files, duplicate transmissions and ACH file edits?

The firm leverages a proprietary infrastructure for Host-to-Host. As part of our corporate technology and infrastructure policy all transaction files received by or sent from the firm have an audit trail. Once payment files are transmitted and received by Host-to-Host, they can be tracked and traced within the firm's environment. Host-to-Host can also provide AFL with a confirmation for those files received, indicating whether the files and transactions have been received for processing or rejected, with the reason for such rejection. Host-to-Host also supports duplicate checking. Details regarding the controls are confidential and proprietary to the firm and not for public disclosure.

ADVANTAGE FOR THE CITY

We have automated tools to help protect you against lost files and duplicate transmissions

4.13.2 Describe the Firm's ability to block unauthorized ACH debits received. If the Firm provides ACH debit filtering, what level of filtering can be applied (originator, originator & dollar amount, etc.)?

J.P. Morgan offers two services to protect your account from unauthorized ACH debits.

ACH Transaction Review

ACH Transaction Review allows the City to review and confirm ACH debit and credit transaction online and return unauthorized transactions on a case-by-case basis. Using a sophisticated filter, the City can limit the number of transactions reviewed, by using the following criteria: debits and credits, company IDs, dollar amount and or dollar amount range, and transaction type. The City has until 4:00 p.m. PT to submit decisions. If a Pay or Return decision is not submitted by the client, the default Pay or Return decision, as established in the related profile, will be applied.

ACH Debit Block

ACH Debit Block allows the City to block all ACH transactions, block specific originators, block specific originators by dollar amount or date or allow all originators except specific originators. With ACH Debit Block Transaction Report, the City receives a daily report that provides a listing of all transactions that were blocked. The City can use the data to have Ana Prieto, your client service professional, update your ACH debit block profile to allow future payments to be processed without being returned. Also, the report enables you to notify trading partners proactively about returned payments.

In accordance with our customary practices and applicable law and rules, the following types of ACH related debits will not be blocked:

- ACH settlement debits to your account to offset ACH credit entries originated by you through us
- Reversals of previously received ACH credits
- Reclamation entries, as defined in the NACHA Operating Rules
- Debits to your account initiated by us to correct processing errors, effect back-valuations or make other adjustments
- Returns or reversals of ACH debits originated by you

Fees or charges owed for services provided by us

4.13.3 With ACH debit blocking, can the Firm provide reports to the City of attempts to debit funds that have been automatically rejected?

Yes, we provide an ACH debit block transaction report lists ACH debit transactions that were blocked from posting to City accounts. This report can be requested via Ana Prieto, your client service professional.

Sample ACH Debit Block Transaction Report

```
VIEW  2.0  BROWSE  -  ACHDEBBLKPRO  ------------------------------  REC
 COMMAND ===>
************************************************** TOP OF DATA ********************************
SARPAGE 1

DBLKREPT                        JPMorgan
                    DEBIT BLOCK PROFILE REPORT        2006/09/12     PAGE:   1

The Account Number:  00000000000XXXXXX
Company Name: COMCAST

COMPANY ID      $ Amount Low   $ Amount High    Start Date     End Date      Type
----------      ----------    ---------- -    --------     --------      ----
                       0.00   99,999,999.99     2005/11/18    9999/99/99     S
1410216800             0.00   99,999,999.99     2005/11/18    9999/99/99     A


                                JPMorgan
                    DEBIT BLOCK PROFILE REPORT       2006/09/12

The Account Number:  00000000000XXXXXX
Company Name: TRW INC

COMPANY ID      $ Amount Low   $ Amount High    Start Date     End Date      Type
----------      ----------    ---------- -    --------     --------      ----
                       0.00    99,999,999.99    2005/11/18    9999/99/99     S
```

Figure 20.

4.13.4 Does the Firm offer ACH positive pay (ability to make pay/no pay decisions on unidentified transactions)? What is the timeframe for receiving exception information and providing a decision?

Yes, the City can use our ACH Transaction Review product to make “Return/No Pay” decisions on ACH items. You have until 4:00 p.m. PT to submit decisions. If a Pay or Return decision is not submitted, the default Pay or Return decision, as established in the related profile, will be applied.

4.13.5 Does the Firm offer Universal Payment Identification Codes (ability to mask account numbers to reduce the risk of unauthorized direct debits)?

Yes, J.P. Morgan offers Universal Payment Identification Code (UPIC). UPIC will help protect the City’s sensitive banking information by providing a universally recognized account and routing number that is different than their J.P. Morgan account number for the purposes of receiving ACH credit transactions. Features of UPIC include:

- Masking routing and account numbers while securely facilitating electronic payments
- Receive credit payments only, blocking all debit originations
- Used in conjunction with a universal routing number
- Issued and maintained by banks
- Remains with the City regardless of changes in account numbers or banking relationships

4.13.6 Can accounts be designated "post no checks" to prevent any check from clearing?

Yes, J.P. Morgan offers our post no checks block to guard the City’s accounts. This service blocks all checks from your J.P. Morgan depository account or account used for electronic debits only.

Post No Checks can be added or removed from an account in one business day. There is no notification of checks attempting to clear the blocked account.

4.14 Wire Processing

4.14.1 Describe the systems available to initiate repetitive, one-time and book transfer wires.

J.P. Morgan offers wire transmission origination via our integrated payables solution. In addition, we offer origination via Access Online and telephone with a PIN

4.14.2 Please fill in the following table with the cutoff time of an Outgoing Domestic Fedwire by origination method for same day execution

	Online	Phone
Outgoing Domestic Fedwire	2:30 p.m. PT	2:00 p.m. PT

Payment/receipt processing operates from 6:00 p.m. PT each Sunday through 4:00 p.m. PT each Friday, excluding U.S. Federal holidays. By actively participating in the extended CHIPS and Fedwire operating hours, J.P. Morgan provides clients with generous cutoff times to enable same-day execution of their payment instructions.

These timeframes are outlined below (all times are PT). Please note that payments requiring repair will have a cutoff time 30 minutes prior to the times stated below. Payment instructions received after these cutoff times will be completed on a reasonable-effort basis.

	Input method			
Type of transfer	**Telephone**	**Internet**	**Host-to-host**	**Automated standing transfer**
Fedwire	2:00 p.m.	2:30 p.m.	2:30 p.m.	See note below (1)
Book transfer/internal	3:00 p.m.	3:30 p.m.	3:30 p.m.	
Drawdown (via Fedwire)	12:00 p.m.	12:30 p.m.	12:30 p.m.	

(1) Automatic Standing Transfer: As standing orders/payment instructions are repetitive, there is no deadline, per se. In most cases, we execute the standing order early each morning. If it is to be based on an account balance either in a J.P. Morgan account or in an account at another bank, the transfer will be based on the closing balance as of the prior business day.

Payment instructions received after cutoff times will be completed on a reasonable-effort basis.

4.14.3 By what method(s) can the City initiate wire transfers? How far in advance can wires be set up?

As stated above, we offer origination via Access Online, Host-to-Host Payments and via telephone with a PIN.

Access Online

Access Online offers a complete range of funds transfer services using both predefined (repetitive) templates and free-form formats:

- The City establishes user entitlements. The City's Security Administrators can authorize users to add, modify, delete, approve and/or release wire transactions, as well as add, modify, delete, approve and activate predefined templates.
- A J.P. Morgan client confirmation number is provided immediately upon release to the funds transfer processing platform.
- Confirmation codes are accessible using cash reporting features.
- Wires (Fedwire and CHIPS), book transfers, drafts, account transfers, U.S. drawdown transaction initiations are supported.
- Multibank payments wherein you can initiate wires from non-J.P. Morgan accounts.
- Future-date capability is available, supporting 365 calendar days

Sample transaction initiation page

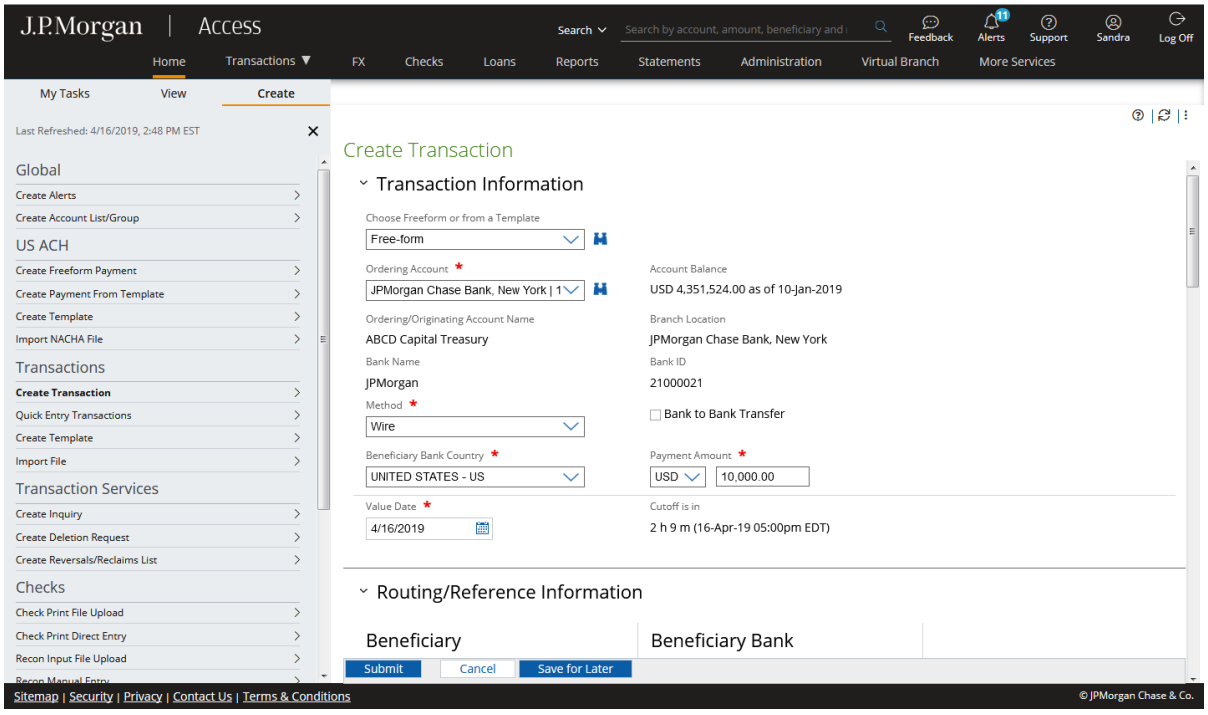


Figure 21.

Host-to-Host Payments

With a transmission using Host-to-Host Payments, J.P. Morgan's integrated payables solution, the City can streamline operations and reduce expense by transferring from your office to the bank many of the tasks involved in payment initiation and reconcilement.

Electronic links can be established between a client's Enterprise Resource Planning (ERP) systems—e.g., PeopleSoft—or legacy platforms, which enables sending formatted payment files—containing wire, ACH, check instructions, Single Use Account and Corporate Quick Pay—to J.P. Morgan for routing and execution. The bank supports several translation formats including ISO20022, EDI ASC ANSI X12, UN/EDIFACT, SAP IDoc, and proprietary J.P. Morgan formats.

Telephonic wire transfer with a PIN

Telephonic wire transfer with a PIN can be used as a primary and/or back-up method of wire initiation.

4.14.4 How quickly are you able to confirm both incoming and outgoing wires?

Incoming wire transfers are credited and available in near real time throughout the day. The cutoff time for incoming credits is the close of Fedwire, which is 3:00 p.m. PT.

For outgoing wires, our highly automated systems release transactions to the Fed minutes after input. The full wire execution and confirmation process, including release to the Fed, receipt of a Fed reference number and making this reference number available to the City, is completed within minutes of initiation—assuming that adequate balances are available in your account and the payment does not stop for OFAC review. Fed reference numbers are available in near real time after successful processing in Access Online.

4.14.5 What are the deadlines for correcting errors and how are they handled?

Originated transactions that cannot be processed straight through our systems or automatically repaired by J.P. Morgan's Artificial Intelligence Repair Service (AIRS) will be presented to our payment processing staff for online repair and verification. Repair specialists will manually review the payment and use the integrated database search facilities built into our payment repair platform to clarify the critical fields of the payment. Following repair and approval, the message will be released into the payment workflow. Repaired instructions are typically processed within 30 minutes.

4.14.6 What is the bank's process for approving an outgoing wire transfer?

J.P. Morgan requires at least one approver for free-form wires or those initiated via repetitive templates originated online. Access Online automatically prevents a single user from performing all actions (create, approve and release) on a single payment, even if the user is entitled to create, approve and release. At the point of release, the application requires that two unique users are involved in the payment life cycle, which includes the creation, approval and release of the payment initiated. Therefore, even if a user has all three entitlements, the user will still not be able to take all three actions on a payment on their own.

In addition, two unique users are required in the creation, approval and activation of any underlying template. Using the Administration functions within Access Online, the City can customize the payment approval process by creating rules that determine the number and identity of approvers for different

types of transactions, including separate approval rules for repetitive templates and free-form wires, as well as the order in which that review must occur. The elements of an approval rule are:

- Payment Type
- Payment Creation Method
- Accounts/Account Groups
- Templates
- Transaction Amount Limit
- Approval Type (Sequential or Non-Sequential)
- Number, Type and Priority of Approvers
- Approval Rule Elements for Trusted Beneficiary

Categories enable you to classify users, tying approvals to a group or job function rather than a particular individual.

4.14.7 Describe the Firm's online wire initiation system's security features. Can varying degrees of authorization be set (i.e. multiple authorizers, maximum dollar amounts, etc.)?

Yes, varying degrees of authorization can be set with at least one approver for free-form wires or those initiated via repetitive templates originated online.

4.14.8 In the event the City cannot access the firm's online portal, what methods are available for wire initiation? Describe the process the City should follow to initiate a wire transfer outside of the Firm's online portal.

As described above, the City can use a Host-to-Host mixed payment file to originate wire transfers. Electronic links can be established between a client's Enterprise Resource Planning (ERP) systems—e.g., PeopleSoft—or legacy platforms, which enables sending formatted payment files—containing wire, ACH, check instructions, Single Use Account and Corporate Quick Pay—to J.P. Morgan for routing and execution.

As a backup, telephone origination with a PIN is also available. The City sets up this service via a "Security Procedure Authorization for Telephone Transfers with PINs Agreement." For security, users will be assigned a user ID and PIN for initiation and/or confirmation, along with a PIN Activation code. Users call an Interactive Voice Response system (IVR) to confirm PIN activation, change that to a PIN of their choosing, and initiate and/or confirm wires.

For wire initiation, callers will be prompted to enter and verify their user ID and PIN using a touch-tone telephone keypad. Once the system has validated the security codes, users will be prompted to enter and verify the debit account number. For repetitive wires, users may complete transactions via self-service options or by speaking to an operator. Free-form wires will be completed by speaking to an operator. If they choose the self-service option for repetitive wires, they will be prompted to speak their repetitive line name and then enter and verify the value date and dollar amount of the wire. Once completed, the operator or IVR will provide a transaction reference number.

Confirmers are required to call the money transfer line (IVR) to perform the confirmation. Clients will be prompted to enter and verify their user ID and PIN using a touch-tone telephone keypad. Once the system has validated the security codes, the client will be informed of the number of transactions available for confirmation. Clients will have the option to proceed to a transaction using a transaction reference number or proceed to the first transaction awaiting confirmation. (If the client chooses transaction reference number, they will be requested to enter the 10-digit transaction reference

number.) The system will read the transaction details and provide the following options: repeat the details, approve, cancel or skip the transaction. Once approved, cancelled or skipped, they will be prompted to proceed to the next available transaction awaiting confirmation, if applicable.

4.14.9 Describe the Firm's capability to initiate and receive international wire transfers.

Our payment systems can initiate and receive international transactions. International wires can be originated via the same methods described above. Incoming international wires will be credited to your account on a same-day basis if received before the stated cutoff.

4.15 System Administrators

4.15.1 What capabilities and functionalities do administrators have?

Banking Function	Yes / No
Create new user profiles	Yes
Assign user names for new users	Yes
Reset user passwords	Yes
Authorize users to access specific modules	Yes
Temporarily disable a user's account for a defined period of time and have the account automatically reinstated on a future date	Yes

4.15.2 When setting up a new user, can a current user's privileges be copied for the new user?

Yes, current user privileges can be mirrored to a new user by your security administrator.

4.15.3 Can a "user role" be established within your online reporting system and individuals granted the permissions according to that "user role"? (Note: This would help the City in granting permissions to new users more efficiently and consistently.)

Yes, Access Online allows complete flexibility for the City to designate the rights of each user on the platform, and provides comprehensive and configurable user entitlements, limits and approval workflow to provide optimal control. Available services accommodate a wide range of security options, including dual control among users, daily or transaction limits and transaction approval rules.

Each user can be restricted by dollar amount and function. Dollar amounts may be either single transaction, daily aggregate or both.

By separating duties, accounts and approval workflows, the City can help reduce the risk of fraud or compromised data. City security administrators are the only individuals able to assign users with transaction initiation privileges.

4.16 Online Reporting System

4.16.1 How soon after the cut-off date are the following items ready?

	Online	By Mail
Bank Statements	2-3 business days	2-3 business days plus delivery
Partial Reconciliation Information	Up to 5 business days	Up to 5 business days plus delivery
Full Reconciliation Information	Up to 5 business days	Up to 5 business days plus delivery
Account Analysis Statement	6 business days	6 business days plus delivery

4.16.2 Describe any recent or upcoming major upgrades to your online reporting system.

The key themes of simplification, visibility and customization drive our strategy to continue to improve Access Online through innovation.

Access Online innovations	
Benefits to the City	• Simplification • Visibility • Customization
Recent enhancements	• Quick and easy three-step user setup process • Expanded ISO formats for reporting and payments • Integrated transactions and information capabilities • View expanded status of initiated payments both within and outside of the J.P. Morgan network • Interactive reporting • Insight has a configurable download of up to 45 days of balances and you can configure and display information most relevant in data or graph formats • Enhanced completed payment inquiry and management
Upcoming developments	• Card, receivables, liquidity and payables all unite into a single, centralized platform • Integration of password and token management into Administration • Payment status from the beneficiary bank and view payments initiated in all channels • Expansion of payment types supported in a single initiation workflow • Implementation of soft token • Expanded bulk FX payments

4.16.3 Complete the following table indicating how long each item is available online? Differentiate between the standard term and the terms available for an additional fee. Please note, this question is asking for how long the items are available, not when they are available.

	Standard Term	Optional Terms Available
Prior / Previous Day Reporting	45 days	90 days, 1 or 2 years
Current Day Reporting	45 days	90 days, 1 or 2 years
Monthly Account Statements	7 years	
Images of Checks Paid	7 years	10 years
Images of Items Deposited with RDC	7 years	10 years

4.16.4 In what file formats can transaction data be downloaded? Can activity be downloaded into Excel?

Access Online can export information on daily or a specified date range of activity, including wire transfers, ACH payments, drafts, checks and statements. The Access Online provides balance and transaction information in the following formats for interface to treasury workstation environments:

- Microsoft Excel
- BAI2
- Comma-separated Values (CSV)
- SWIFT MT942/MT940
- ISO camt.052/053, camt.054
- Adobe Reader (PDF)-formatted reports
- Open Financial Exchange (OFX)

The City can also export data from the online platform to Microsoft Excel and other software packages.

In addition, if the City desires a transfer right to your internal systems, a direct transmission can be provided of prior-day and current-day data in BAI2, CSV, SWIFT MT 942/940, ISO 20022 v2 and ANSI ASC EDI X12 821 formats.

4.16.5 What technology options would you recommend the City use for archiving historical check images (i.e. CD-ROM, online retention, data transmission)?

We offer paid item images* in different media to meet the City's image strategy. The paid check image options are:

- **Online via Access Online**: Retrieval time is measured in seconds, compared with hours or even days for physical retrieval and the quality of the reproduced image is extremely clear (see image example below).
- **Image Transmissions**: Provides fast, automated image files directly transmitted to your internal check archive for high-volume clients.

* JPMorgan Chase is licensed under U.S. patent nos. 5,910,988 and 6,032,137.

Access Online – Image Service

Access Online provides online image history inquiry for seven years. This service includes an advanced upfront check search functionality that provides the City with the status of each check. Your users can perform single and range-based searches by account number, check number and amount, sequence number, paid and issue dates and payee name. The results tell you whether the check is still outstanding, has an active or revoked stop, is canceled (voided), was returned or has paid.

Additionally, batches of images can be requested in an offline request mode for more efficient origination of larger numbers of requests.

Access Online is more efficient than paper or CD-ROMs, especially when retrieving information quickly. Check images are available the same day checks are presented. This browser-based solution enables the City to retrieve check images for all applicable accounts without waiting for a photocopy or CD-ROM to arrive.

Access Online Checks function - sample check image

Figure 22.

Long-term online check image retrieval

The City's authorized users may access paid check images online for accounts to which they have the appropriate entitlements and initiate a search using:

- Account number
- Check number
- Paid date
- Dollar value
- Payee name
- Custom search fields chosen by the City, such as general ledger number or vendor number

Access Online displays search results online where users can select an individual item and view the corresponding image. Images are stored and available for online retrieval for a standard period of seven years, with the option of extending to ten years.

4.16.6 Does the Firm charge for historical images of disbursement checks that are accessible online? If so, does your Firm charge per image stored or per image accessed?

Yes, the firm charges a maintenance fee and per image stored fee. Please refer to the Cost Proposal for details.

4.16.7 Do you offer any solutions where bank data and transaction functionality are directly linked to a City user's computer (i.e. Microsoft Excel)?

Yes, through Access Insight, an integrated module within Access Online, the City can combine account information across your banking relationships with your own, internal spreadsheets, to aid in monitoring your cash position and analyzing trends.

How it works

After installing a Microsoft Excel add-in, the City may use the Insight Wizard to quickly and easily create a customized worksheet that can be automatically populated with your bank account data. Or, just tell Insight where to populate your balance, transaction, and pending payment/receipt information in your company's spreadsheet form.

Either way, you will benefit from the convenience, and gain more control with the automation provided by Insight.

ACCESS INSIGHT FEATURES AND BENEFITS

- Gain greater accuracy and control: Refresh balance, transaction and payment/receipt information as needed.
- Save time: Initiate payments/receipts directly from your spreadsheet.
- Make research fast and easy: View balance, transaction and payment /receipt details directly from the spreadsheet.
- Save historical data: Create history reports to analyze cash flow trends.

- *Fully customizable functionality*—Select templates, spreadsheet layouts, account, transaction types and in-flight payments/receipts, set thresholds for individual accounts, receive reminders and generate "To-Do Lists."
- *Initiate payments and receipts*—Save time by initiating payments/receipts directly from your spreadsheet.
- *Historical data for trend reporting*—Create history reports with 45 or more days of past balance and transaction data. Use these reports to analyze trends for any period you choose.
- *Powerful security*—J.P. Morgan's robust security protocol is designed to help protect your privacy, preserve data authenticity and maintain strong operational controls. Your staff will find managing user settings easy, which they can adjust to make sure they have access to the right functionality and information.
- *Help if you need it*—Access Insight is designed to work the way you do, helping manage your daily workflows more efficiently. Most clients are up and running with little or no learning curve. However, should you need help, a full range of support materials is available through Support. The Support tool offers clients a single location for product and service related content providing a full range of documents and training material from quick start guides, to webinars and online training modules.

Sample J.P. Morgan Access Insight page

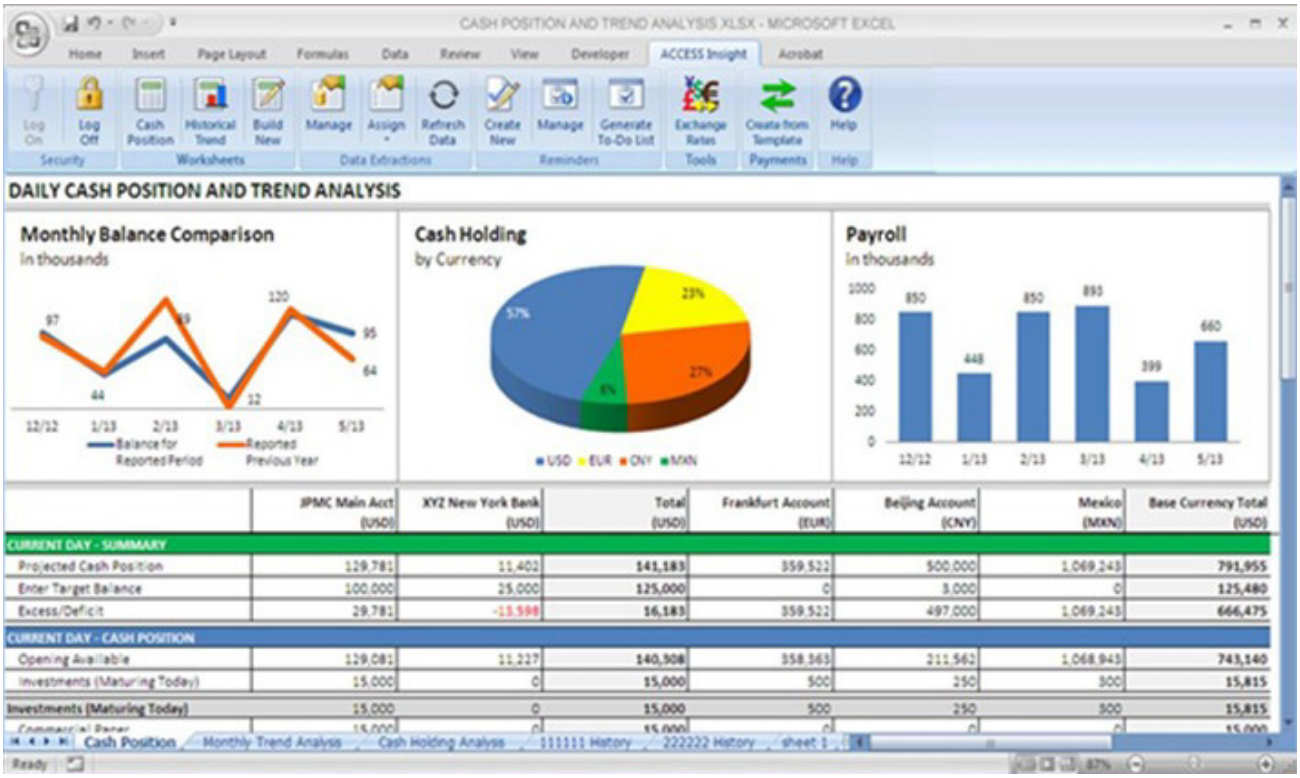


Figure 23.

4.16.8 Can electronic reports be customized by users within the Firm's online platform? Can these customized reports be saved? Can the templates be shared with other users?

Yes, the City can create and save customized reports through a set of filter criteria (e.g., date range, accounts, reference numbers, check numbers, transaction types, etc.) Users can:

- Run, view and modify all customized reports quickly and easily.
- Customize how to view or download reports, tailored to your specific needs, with a set of interactive features including:
  - Ability to move, show or hide columns within the report.
  - Sort columns on the fly.
  - Use the City's web search tool to filter data.
  - Add and customize graphs or charts (pie, bar, line, etc.) to quickly see trends.
- Share a customized report, where one user can run a copy according to their schedule. A copy of the shared report will appear in the recipient's Reports Inbox, with an icon indicating it has been shared with them. When the original report is modified, the recipient's report will reflect the same modifications.
- Schedule online reports for automatic generation (PDF, XLS).

- View reports online or export them to Adobe PDF or Microsoft Excel formats. The City can export to Excel from any File List View.
- Most reports can be exported into CSV, BAI2, OFX, ISO camt.052/.053/.054 or SWIFT MT942/MT940 files.

Output will be delivered to your Reports Inbox and available for 24 hours.

4.16.9 Can electronic reports be scheduled to be generated automatically and e-mailed to designated users?

Yes, with Access Online, the City can schedule reports and receive notices when they are complete and ready to view.

4.16.10 Can the Firm's online reporting system send e-mail alerts?

Yes, Access Online offers a wide variety of customizable business critical alert notifications to save you time and make sure you don't miss anything.

You can elect to receive alert notifications via email and/or online via the Alerts Inbox, where they will remain for 90 days before being automatically deleted. You can define, manage and view messages from anywhere in the platform. For example:

- Set up alerts for when balances are above or below a preferred level, transactions/checks are available, or payments require your attention, with links to supporting detail
- Choose to be alerted to new items in your payments inbox that require action, such as transactions pending approval or see templates that have been modified
- Receive an alert when a scheduled report is complete

4.16.11 Describe any mobile applications that you offer for smartphones or tablets. What banking services can be completed using these applications? Complete the following table indicating which banking functions can be completed through mobile applications.

Banking Function	Yes / No
Initiate a repetitive wire	No
Provide secondary approval for a wire transfer	Yes
Decision of positive pay items	Yes
Reset a user's password	No
Obtain balance reports	Yes
Deposit an individual check	Yes
Availability of soft token for multi-factor authentication	Yes

4.16.12 Are tokens required for all users accessing the online reporting system, including those that access the system for view-only access?

Yes, users will enter their user ID, password, token ID as well as confirm the unique site phrase they created upon first logon. Once logged onto the system, and depending on entitlements, authorized users can view balances and underlying transactions for all accounts, make payments and run reports.

4.16.13 What type of multi-factor authentication options are available? Complete the following table:

Type	Yes / No
RSA SecureID Token	Yes
Mobile Token	Yes
Phone Call-Back Token	No
Other (please list)	Mobile users can use voice/swipe for authentication

4.17 Reconciliation Services

4.17.1 Does the firm offer partial Account Reconciliation Program (ARP) services?

Yes, J.P. Morgan offers partial account reconciliation which provides the City with a detailed listing of checks paid against a disbursement account over a client-defined period. This service also details certain other categories, such as stopped checks. Checks are typically listed in check serial number sequence with the amount and date each check was paid. The reports are available via Access Online.

4.17.2 Describe how reconciliation data would be transmitted to the City.

The City can upload files containing positive pay issues, voids/cancels and stop payment requests into Access Online in fixed text, CSV or XML formats. The City can also transmit the positive pay, check issue files directly to J.P. Morgan.

For validation, the City may receive an automated acknowledgement of your check issuance file transmission within one hour of file receipt, via the Internet or transmission.

ARP standard input and output specifications

Position	Size	Data element	Field type	Format/ justification	Comments
1	1	Record Type	Alpha	One character field that identifies the item type as specified to the right.	**Input codes**: I = issues , S = stopped items, V = void or cancel items **Output codes**: P = paid items, R = reconciled items, O = outstanding items, S = stopped items, V = void or cancel items, C = miscellaneous credit item, D = miscellaneous debit item
2	1	Filler	Alpha	Spaces	
3 - 22	20	Account Number	Numeric	Right Justified/Zero Filled	The account number field should contain the J.P. Morgan-supplied number associated with the account.
23	1	Filler	Alpha	Spaces	

ARP standard input and output specifications

Position	Size	Data element	Field type	Format/ justification	Comments
24 - 41	18	Serial/Check Number	Numeric	Right Justified/Zero Filled	This field has been maximized to 18 digits for future growth. The current ARP system supports serial numbers up to 10 digits in length. The remaining 8 digits should contain zeros.
42	1	Filler	Alpha	Spaces	
43 - 60	18	Amount	Numeric - 2 Decimal Places	Right Justified/Zero Filled 9(16)V99	The amount field should not contain signed data or decimal points. This field has been maximized to 18 digits for future growth. The current check processing system supports amount up to 10 digits in length. The 8 digits should contain zeros.
61	1	Filler	Alpha	Spaces	
62 - 69	8	Issue Date	Numeric	YYYYMMDD	The issue date field is used only on input files or output files that are processed as a full reconcilement.
70	1	Filler	Alpha	Spaces	
71 - 78	8	Paid Date	Numeric	YYYYMMDD	The paid date field is used only with the output files. * Input files should contain spaces in this field.
79	1	Filler	Alpha	Spaces	
80 - 94	15	Additional Data	Alpha-Numeric	Content Specific	The additional data field is an optional field used by both input and output files. It can contain payee information or other important data. * If the field is not used it should contain spaces.
95-144	50	Expanded Additional Data (Payee Name)	Alpha-Numeric	Content Specific	The expanded additional data field is an optional field used by both input and output files. It can be used by clients who want more than 15 characters of additional data on their output files (not reports). Payee Name data is placed in these positions for interrogation/ verification. * If the field is not used is should contain spaces.

ARP standard input and output specifications

Position	Size	Data element	Field type	Format/ justification	Comments
145-194	50	2nd Payee Name	Alpha-Numeric	Content Specific	The 2nd payee name field is an optional field used by input files only. It can be used by clients who want to use a second payee name. The 2nd Payee Name data is placed in these positions for interrogation/verification. * If the field is not used is should contain spaces.
195-200	6	Filler	Alpha	Spaces	

Sample ARP file layout

```
SAMPLE LAYOUT (RECORD LENGTH 200) NOTE: 200 Record length is for the Input Only to accommodate Payee Name - Output length is 150.
     1    2    3    4    5    6    7    8    9    10   11   12   13   14   15   16   17   18
12345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345
-------------------------------------------------------------------------------------------------------------------------------------------------------------------
P 00000000000123456789 000000001122334455 000000000000500000 20030514 20030525 Additional DataPAYEE NAME                    2nd Payee Name
P 00000000000123456789 000000001122334456 000000000000500000 20030514 20030525 Additional DataPAYEE NAME                    2nd Payee Name
P 00000000000123456789 000000001122334457 000000000000500000 20030514 20030525 Additional DataPAYEE NAME                    2nd Payee Name
P 00000000000123456789 000000001122334458 000000000000500000 20030514 20030525 Additional DataPAYEE NAME                    2nd Payee Name
 ^-------------------------^ ^-------------------^ ^-------------------^ ^---------^ ^---------^ ^-------------^ ^-------------------------------------^ ^-------------------------
      ACCOUNT            SERIAL          AMOUNT        ISSUE    PAID    ADDL DATA          PAYEE NAME                  2nd PAYEE NAME
```

Special Notes:

* Some of the numeric fields may be larger than your system can support. Splitting the fields into two parts and filling the unused portion with zeros may be necessary.
* All numeric values should be right justified and zero filled.

Figure 24.

4.18 Earnings Credit Rates

4.18.1 How is your Firm's earnings credit rate determined, adjusted, and applied?

The earnings credit rate is a bank managed rate which is reviewed and updated periodically by J.P. Morgan after considering a range of factors, including the market rate environment. Using a managed rate helps to maintain pricing flexibility while helping to protect you from the short-term rate volatility that could result from using an indexed rate.

The earnings credit allowance is calculated based on the average daily positive collected balances in the non-interest-bearing accounts less the reserve requirement (currently 0%) using the following calculation:

Monthly earnings credit allowance calculation

$$\frac{(\text{Average monthly investable balance} \times \text{ECR} \times \text{actual number of days in month})}{\text{Actual number of days in year}}$$

4.18.2 Are you willing to link the earnings credit rate to a market index? If so, which index would you suggest? If not, what is the Firm's current earnings credit rate and what earnings credit rate are you offering to the City?

Our ECR and deposit rates are managed rates that are not tied to any specific index. Managed rates allow for pricing flexibility while protecting you from the short-term rate volatility indexed rates create. When adjusting our managed rates, we consider a range of factors including the market rate environment and our demand for funds.

4.18.3 If the proposed earnings credit rate is higher than the bank's standard ECR, do you plan on maintaining this spread for the City over the life of the contract?

The proposed earning credit rate is a bank managed rate which is reviewed and updated periodically by J.P. Morgan after considering a range of factors. It is not a fixed rate or spread over the life of the contract. The City will benefit from a highly competitive managed Earnings Credit Rate (ECR) of 1.30% which will be managed in accordance with market conditions, our demand for funds and within the context of the stability of deposits and overall relationship. Every client is unique, and we will strive to maintain a premium rate over the term of the contract.

4.18.4 Does a reserve requirement apply on balances?

In calculating the ECR, J.P. Morgan currently does not deduct the reserve requirement from the available balance.

Since October 1, 2008, the Federal Reserve has paid interest on reserves held at the Federal Reserve by member banks. J.P. Morgan passes this benefit to you by basing the earnings credit on 100% of the eligible balance of non-interest-bearing demand deposit accounts.

4.18.5 Will the Firm assess any balance based charge (FDIC-like, FICO, or other) to the City of Santa Clara? How is this charge computed? Is this charge assessed on ledger or collected balances?

J.P. Morgan charges a balance based charge (BBC), which is a monthly administrative fee assessed to address various regulatory and other charges affecting the bank. The rate is set by the bank and subject to periodic review and adjustment.

The following formula is used to calculate the BBC:

Balance-based charge calculation (monthly)

$$\frac{\text{Average positive ledger balance} \times \text{charge rate} \times \text{number of calendar days in the month}}{\text{Actual number of days in the year}}$$

Since January 2, 2010, our BBC rate has been 0.13%.

As with other eligible fees, the monthly Balance Based Charge may be offset by earnings credit provided by J.P. Morgan. This charge is included in the monthly account analysis statements.

4.18.6 If the Firm assesses a balance based charge, what is the current charge for an entire year on a $1,000,000 balance?

Since January 2, 2010, our BBC rate has been 0.13%, which is equivalent to $1,300 per year on a $1,000,000 balance.

4.18.7 Based on the method being proposed to determine the City's earnings credit rate, provide the earnings credit rate history for the 24-month period from October 2017 through September 2019. Indicate the gross rate, any balance-based charge as a percentage, and the net earnings rate to the City for each month.

The proposed earning credit rate is a bank managed rate which is reviewed and updated periodically by J.P. Morgan after considering a range of factors. It is not a fixed rate or spread over the life of the contract. The City will benefit from a highly competitive managed Earnings Credit Rate (ECR) of 1.30% which will be managed in accordance with market conditions, our demand for funds and within the context of the stability of deposits and overall relationship. Every client is unique, and we will strive to maintain a premium rate over the term of the contract. Below is the ECR calculation for the past 24 months based on uncommitted, implied 80bp spread over standard ECR.

ECR history for the past 24 months

Month, Year	Standard ECR	Plus uncommitted, implied 80 bp spread	Balance based charge	Net rate
October, 2017	0.35%	1.15%	0.13%	1.02%
November, 2017	0.35%	1.15%	0.13%	1.02%
December, 2017	0.35%	1.15%	0.13%	1.02%
January, 2018	0.40%	1.20%	0.13%	1.07%
February, 2018	0.40%	1.20%	0.13%	1.07%
March, 2018	0.40%	1.20%	0.13%	1.07%
April, 2018	0.40%	1.20%	0.13%	1.07%
May, 2018	0.45%	1.25%	0.13%	1.12%
June, 2018	0.45%	1.25%	0.13%	1.12%
July, 2018	0.45%	1.25%	0.13%	1.12%
August, 2018	0.53%	1.33%	0.13%	1.20%
September, 2018	0.53%	1.33%	0.13%	1.20%
October, 2018	0.65%	1.45%	0.13%	1.32%
November, 2018	0.65%	1.45%	0.13%	1.32%
December, 2018	0.65%	1.45%	0.13%	1.32%
January, 2019	0.75%	1.55%	0.13%	1.42%
February, 2019	0.75%	1.55%	0.13%	1.342%
March, 2019	0.75%	1.55%	0.13%	1.42%
April, 2019	0.75%	1.55%	0.13%	1.342%
May, 2019	0.75%	1.55%	0.13%	1.42%

ECR history for the past 24 months				
June, 2019	0.75%	1.55%	0.13%	1.42%
July, 2019	0.85%	1.65%	0.13%	1.52%
August, 2019	0.65%	1.45%	0.13%	1.32%
September, 2019	0.65%	1.45%	0.13%	1.32%
October, 2019	0.60%	1.40%	0.13%	1.27%
November, 2019	0.50%	1.23%	0.13%	1.17%

4.18.8 Does the Firm have any limits on the amount of deposits that the City could maintain with the Firm?

No, there are no limits to the amount of deposits the City could maintain with J.P. Morgan.

4.18.9 Does the Firm have a minimum deposit that must be maintained?

No, there is not a minimum deposit amount that the City must maintain with J.P. Morgan. However, it is important to note that our proposed pricing and rates are based on averages balances provided in the RFP and as such, J.P. Morgan anticipates the City will maintain average deposits in line with provided balances. We reserve the right to review the rates if the average balances are below historical balances.

4.18.10 What settlement periods are available to the City?

As the standard option, J.P. Morgan offers monthly settlement with fees debited on the 15th calendar day of the month following the close of the billing period. Alternative schedules may be quarterly, semi-annual or annual and are subject to negotiation.

Account analysis statements are generated monthly, regardless of settlement period. J.P. Morgan's electronic billing statements are available online through Chase Connect or Access Online on the sixth business day after the close of the billing period.

4.19 Investment Option or Interest Bearing Bank Deposit

(If you are proposing more than one sweep vehicle, please make sure each of the following questions is answered for each option.)

4.19.1 What short-term investment vehicle(s) or interest bearing account(s) does the Firm propose to use for the overnight sweep of the City's demand deposit accounts? If the Firm is proposing a money market mutual fund, identify the class of shares by providing the ticker symbol and CUSIP, as applicable.

Investment Option	Ticker Symbol/CUSIP (if applicable)
Hybrid DDA	Not applicable
Sweep to money market fund	Varies

As a leading liquidity solutions provider, J.P. Morgan offers our Hybrid DDA solution as well as integrated off-balance sheet investment solutions for excess operating balances not needed to offset bank fees with earnings credit allowance.

Hybrid DDA

In today's current rate environment, the City may consider using our Hybrid demand deposit account for excess cash balances. The Hybrid DDA allows you to earn interest on excess funds without moving them to an investment account. This innovative solution opens the door to a simplified account structure, allows for balances to offset service fees and minimizes time spent managing investments.

HYBRID DDA BENEFITS

- Operational efficiency: decreases the time spent managing multiple accounts and/or investments for excess funds because the funds remain in one cash account and are available for use as needed.
- Balance availability: Full utilization of balances.
- Full liquidity: Balances are fully liquid throughout the business day with no restrictions on withdrawals.
- Attractive rate of return: Competitive rate of return, as compared to other short-term investment products providing overnight liquidity.
- FDIC insured deposits: Balances are FDIC-insured up to the standard maximum of $250,000 per depositor.
- No reserve requirement: Reserve requirement does not apply.

How it works

The Hybrid DDA offers a solution similar to the functionality of an overnight sweep service. In the Hybrid DDA solution, balances earn an earnings credit allowance up to a predetermined threshold to offset bank service fees with balances above the threshold earning hard dollar interest. Thus, instead of sweeping to a separate account each night, your excess balance remains in the DDA and earns interest. Additionally, the Hybrid DDA does not have an investment cap like an end-of-day MMF sweep solution.

Balances up to a predetermined threshold ("the peg balance") earn an earnings credit allowance at the **proposed earnings credit rate of 1.30%**. Funds up to the peg balance are used to offset bank service fees. Balances above the peg balance threshold earn **hard dollar interest at a proposed rate of 1.20%**. Interest accrues daily and is paid monthly. The below illustrates how the Hybrid DDA works:

Hybrid DDA structure

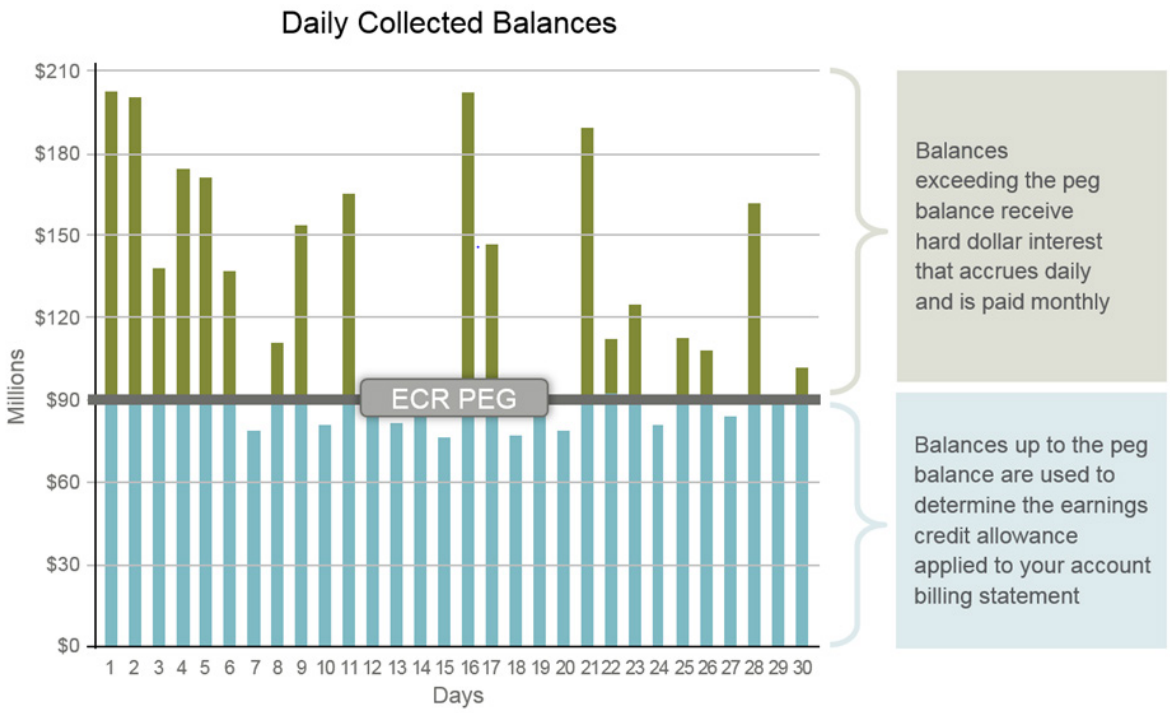


Figure 25.

The peg balance may be changed at any time prior to the next billing cycle (and will be applied on a go forward basis) to adjust for unplanned changes in service fees (e.g., significant volume changes, service additions/deletions, to compensate for periods in which minimum balance levels fall below the peg balance amount).

Calculation of ECR and interest

The earning credit rate and interest rate are bank managed rates which are reviewed and updated periodically by J.P. Morgan after considering a range of factors, including the market rate environment. Using a managed rate helps to maintain pricing flexibility while helping to protect you from the short-term rate volatility that could result from using an indexed rate.

The earnings credit allowance is calculated and applied monthly on the balances up to the peg balance threshold.

Monthly earnings credit allowance calculation

$$\frac{(\text{Average monthly investable balance} \times \text{ECR} \times \text{actual number of days in month})}{\text{Actual number of days in year}}$$

Hard dollar interest accrues daily on the closing daily balance above the ECR peg and is paid monthly.

Daily interest accrual calculation
(Daily positive collected balance above the peg x account interest rate) Actual number of days in year

Sweep to money market fund

The automated intraday and end-of-day investment sweep to J.P. Morgan and select third-party money market funds (MMF) helps clients efficiently invest account balances, maintain liquidity and meet investment guidelines. Investment sweep services afford competitive returns while simultaneously providing fluid integration with operating accounts. Our sweep product offering provides visibility of accounts and returns online through J.P. Morgan Access Liquidity Solutions.

The City can use J.P. Morgan's breadth of services, reputation, and financial strength and stability to build upon the efficiency and value of our own cash management operation. Below please see investment details on the sweep offering available to you.

Sweep offering	
Money market funds (MMF)	
Exposure	The specific MMF selected; see prospectus at www.jpmgloballiquidity.com
Rating	
Sweep type	End-of-day and intraday
Timing	• End-of-day: Last transaction of the business banking day • Intraday: One hour prior to fund close
Return of funds	• End-of-day: The morning of the next business day • Intraday: Only when DDA balance falls below target
Interest/ Dividends	Dividends accrue daily, paid monthly on a 365-day basis
Restrictions/ Comments	• U.S. corporations/entities must invest in U.S.-registered funds • End-of-day sweep: Investment cap established based on average stable balance • See prospectus for fund details

J.P. Morgan offers the City end-of-day and intraday sweep options with J.P. Morgan and select third-party money market funds (MMFs) to implement an effective sweep structure. The amount invested via the sweep is determined by the available account balance at sweep time in conjunction with pre-established, client-defined sweep parameters. The City has control to set these parameters, such as target balance and sweep increments, during the initial sweep setup. You may modify the parameters by contacting Customer Service.

- **End-of-day sweeps** are based on a target balance set by the City which should be maintained in the DDA at all times. When the balance exceeds the target, the sweep system moves the excess into the selected investment vehicle in sweep increments, as defined by you.
  - End-of-day collected balances that exceed the target balance are automatically invested up to the account's investment cap. Balances above the cap may also be invested depending on availability of shares.
  - End-of-day sweeps are processed as the last transaction of the business day. MMFs are automatically returned the morning of the next trading day.
  - For maximum flexibility, J.P. Morgan permits sweep increments as small as $1.00.
  - An investment cap is established for each account based on the estimated average sweep balances.
- **Intraday sweeps** are based on a target balance defined by the City that is to be maintained in the account. Collected balances exceeding the target at the afternoon sweep cutoff time are automatically invested. If collected balances are less than the target at the cutoff time, exactly sufficient funds are redeemed to bring the account balance up to the target.
  - Funds remain invested, with automatic daily purchases and redemptions of MMF shares, within the pre-established DDA target balance.
  - The sweep cutoff is one hour prior to fund close. Please refer to the table below for our fund availability and cutoff times.

4.19.2 Does a reserve requirement apply to any of the proposed options? If so, specify the requirement for each option.

The reserve requirement does not apply to sweep balances, it applies to account balances that earn earnings credit. In calculating the Earnings Credit Rate, J.P. Morgan currently does not deduct the reserve requirement from the available balance.

Since October 1, 2008, the Federal Reserve has paid interest on reserves held at the Federal Reserve by member banks. J.P. Morgan passes this benefit to you by basing the earnings credit on 100% of the eligible balance of non-interest-bearing demand deposit accounts.

4.19.3 Does an FDIC assessment, deposit based fee, or similar fee apply to the proposed option? How is this charge computed? Is this charge assessed on ledger or collected balances? (If the Firm is offering multiple options, indicate to which option the assessment/fee applies.)

J.P. Morgan charges a balance based charge (BBC), which is a monthly administrative fee assessed to address various regulatory and other charges affecting the bank. The rate is set by the bank and subject to periodic review and adjustment.

The following formula is used to calculate the BBC:

Balance-based charge calculation (monthly)

$$\frac{\text{Average positive ledger balance} \times \text{charge rate} \times \text{number of calendar days in the month}}{\text{Actual number of days in the year}}$$

4.19.4 If a fee does apply, what is the current charge for a full year on a $1,000,000 balance?

Since January 2, 2010, our BBC rate has been 0.13%, which is equivalent to $1,300 per year on a $1,000,000 balance.

4.19.5 Provide investment return history for the 24-month period from October 2017 through September 2019 for each option proposed. Show the yield for each month.

J.P. Morgan offers the City end-of-day and intraday sweep options with J.P. Morgan and select third-party money market funds (MMFs) to implement an effective sweep structure. Upon further discussion with the City on the preferred option based on structure, risk appetite and cost we would be happy to provide historical rates for preferred structure(s). Below is the hybrid hard dollar interest calculation for the past 24 months based on uncommitted, implied 70 bp spread over standard ECR.

Hybrid rate history

Month, Year	Rate with uncommitted, implied 70 bp spread	Month, Year	Rate with uncommitted, implied 70 bp spread
October, 2017	1.05%	October, 2018	1.35%
November, 2017	1.05%	November, 2018	1.35%
December, 2017	1.05%	December, 2018	1.35%
January, 2018	1.10%	January, 2019	1.45%
February, 2018	1.10%	February, 2019	1.45%
March, 2018	1.10%	March, 2019	1.45%
April, 2018	1.010%	April, 2019	1.45%
May, 2018	1.15%	May, 2019	1.45%
June, 2018	1.15%	June, 2019	1.45%
July, 2018	1.15%	July, 2019	1.55%
August, 2018	1.123%	August, 2019	1.35%
September, 2018	1.123%	September, 2019	1.35%

4.19.6 If a sweep is proposed, what time of day is the sweep deadline (Pacific Time)? Is it end-of-day or next-day sweep?

The City can combine intraday and end-of-day investments to address any cash flow activity that may take place after intraday investment cutoff times.

Money market funds availability and cutoff times

J.P. Morgan fund	Direct investment	Intraday sweep	End-of-day sweep
Prime Money Market Fund	11:30 a.m. PT	11:00 a.m. PT	Y
U.S. Government Money Market Fund	1:30 p.m. PT	1:00 p.m. PT	Y
U.S. Treasury Plus Money Market Fund	1:30 p.m. PT	1:00 p.m. PT	Y
Federal Money Market Fund	11:30 a.m. PT	11:00 a.m. PT	N
100% U.S. Treasury Money Market Fund	11:30 a.m. PT	11:00 a.m. PT	Y

Note: Select third-party provider funds may be available. The table above includes cutoff times for the direct investment product offering which is also available with J.P. Morgan Money Market Funds. The Prime Fund calculates its net asset value to four decimals (e.g., $1.0000) using market-based pricing and operates with a floating net asset value.

4.19.7 How are balances in the sweep product shown on current day reports?

The standard end-of-day sweep automatically debits cash as the last transaction of the day for the overnight investment, and automatically redeems the investment principal the next business day morning. Both transactions are reflected in current day reporting on Access Online.

Incremental investments or redemptions on an intraday sweep are automatically made to bring the DDA to its pre-established target balance. These transactions are also reflected on Access Online.

4.19.8 Explain and diagram the movement of funds in and out of the DDA. If there are sufficient funds in the sweep product to cover all net disbursement activity, is there a possibility that the DDA account would be overdrawn and subject to overdraft fees?

Please see our response to *Question 4.19.1* above for details regarding the movement of funds for both a Hybrid DDA and investment sweep.

4.20 Account Analysis Statements

4.20.1 Provide a sample analysis statement.

A sample account analysis statement has been provided in Appendix 7.

4.20.2 Can the Association for Financial Professionals (AFP) Service Codes be included on the analysis statement? If not, provide a report that maps your service descriptions to the AFP codes.

J.P. Morgan provides a statement option that includes AFP service codes* on U.S. account analysis statements.

**A portion of this material related to the AFP Service Codes is copyrighted by the Association for Financial Professionals and has been reprinted with permission.*

4.20.3 Provide a glossary defining all service descriptions used in your account analysis statement as part of the appendix to your response.

A glossary of all service descriptions has been provided in Appendix 8.

4.20.4 Are account analysis statements available online? How many prior months are available? Can the account analysis details be downloaded into Microsoft Excel?

Yes, account analysis statements can be viewed on Access Online starting on the sixth business day after the close of the billing period. Access online provides thirteen months of account analysis statement history.

Account analysis statements can be viewed online, or exported in Excel, PDF, and CSV formats. In addition, statements can be downloaded in a BAI file via Access Reports or via Host-to-Host Direct Transmission.

4.21 Collateral Requirements

4.21.1 Are you willing to collateralize up to $100 million in compensating balances and/or other deposit accounts in accordance with California statutes for public funds? If not, how much are you willing to collateralize for the City?

The Bank will collateralize all public deposits collateral requirements as necessary currently and has no established maximum collateral limit. The Bank does require a one (1) business day notification of a collateral increase request greater than $50 million.

JPMorgan Chase Bank, N.A. (the “Bank”), through its National Collateral Management Group (“NCMG”), employs a Bank developed Corporate Collateral Management System (“Coast”), which provides daily monitoring of deposit balances and security value for collateralization purposes.

Coast is reviewed each Federal Reserve banking day by dedicated Collateral Managers for compliance with collateral requirements. Collateral requirements are based upon the end-of-day ledger balances in deposit accounts (demand and time deposits) (plus accrued interest if any), less applicable FDIC coverage if coverage for insured balances is appropriately waived, plus applicable margin (10%). The end-of-day deposit balances are uploaded into Coast the following Federal Reserve banking day morning from the Bank's deposit system. NCMG monitors the market value of collateral pledged to our customers and compares the market value to the collateral requirements. In the event a market value reduction or increase in deposit level creates an under-collateralized position, additional collateral will be pledged promptly.

Collateral is pooled for all Local Agency Government Customers and State Agency Customers

The Bank follows the collateralization process (California Pool) established by California law and procedures of the Local Agency Security Program (LASP) Administrator. In addition, the Bank follows the collateralization process established by California law for State Agency customers. The State’s own deposits are directly collateralized.

Types of Collateral Pledged

The Bank is currently pledging U.S. Treasury securities to secure Local Agency deposits and State Agency deposits. The amount and types of collateral pledged are subject to change, but will be in accordance with the California Government Code (for Local Agency deposits, Government Code §§ 53651, 53651.2, 53651.6 and rules established by the LASP Administrator; and for State Agency Deposits, Government Code § 16522).

Custodian for the Collateral Securities

The Bank currently employs MUFG Union Bank as third-party custodian to hold collateral for the LASP; and the Federal Reserve Bank, which account is controlled by the State Treasurer for the State Agency accounts.

Collateral Priced/Marked to Market

The Bank uses an independent, third-party pricing agent for collateral valuation. Dependent upon the types of securities pledged, the Bank will update security prices (marked to market) daily, weekly and monthly, as provided by the pricing agent. MUFG Union Bank also prices pledged securities daily, weekly and monthly, dependent upon the types of securities pledged as collateral.

Departments Responsible for Tracking Collateral and Reporting to the State

The Bank has two groups for tracking collateral and reporting: Firmwide Regulatory Reporting and Analysis (FRRA), which conducts all reporting to the LASP Administrator, and NCMG, which conducts security pledging (and other collateral transactions) with the LASP Administrator.

Collateral Reporting

The Bank is required to provide reporting to the LASP Administrator in such frequency and in such format as described in California law and LASP rules. The Bank is unable to provide collateral reporting for LASP pool program customers because the collateral pledged covers all California Pool participants and is not segregated to a specific customer. Request of proof of collateralization for LASP pool program customers can be submitted to:

MUFG Union Bank of California
Attention: Brian Nicole
350 California Street, MC# H-17002
San Francisco, CA 94104
ITCS_Corp_and_Inst@unionbank.com or:

Department of Business Oversight
Division of Financial Institutions
1515 K Street STE 200
Sacramento, CA 95814
Phone: (916) 322-1547 or (415) 542-6273
Fax: (916) 323-3024
Lisa Huang, Lisa.Huang@dbo.ca.gov ; or Patrick Carroll, Patrick.Carroll@dbo.ca.gov

4.22 End-of-Day Overdrafts

4.22.1 Does the Firm return items if an overdraft exists? If yes, how flexible is this policy?

J.P. Morgan's policy is that collected balances be maintained in the account(s) at all times in order to cover daily cash disbursements.

The City's relationship manager, Bev Correa, handles overdrafts caused by funding failures. Bev will contact you to help confirm the account is processed appropriately. However, an interest overdraft fees may be assessed on uncollected balances.

4.22.2 *What are the fees and interest charges associated with overdrafts? How are these charges calculated?*

J.P. Morgan charges for the use of end of day (EOD) uncollected funds by applying a daily variable overdraft (OD) rate to individual DDAs for each day an overdraft occurs. Interest and overdraft fees can be offset by an earnings credit allowance and may be assessed on a per-occurrence basis.

The formula for Negative Collected Balance Fee is as follows:

Negative collected balance fee calculation

$$\frac{(\text{Negative collected balance} \times \text{overdraft rate} \times \text{number of days overdrawn})}{360 \text{ days}}$$

4.22.3 *Is there a fee per check or per occurrence when there is an overdraft? If so, what is it?*

There is a per occurrence fee for each individual overdraft when paid or returned. Please see the Cost Proposal for detailed pricing information.

4.22.4 *Is there a daily cap on fees? If so, what is it?*

No, there is no daily cap on overdraft fees. The negative collected balance amount would be assessed a fee based on our prevailing Prime Rate + 3%. There is no cap on this charge.

4.22.5 *What options can your Firm propose to cover any end-of-day overdrafts (e.g., line of credit, etc.)?*

We can discuss establishing a facility such as a line of credit which is subject to adjustment, within the discretion of J.P. Morgan, based upon the City's continued creditworthiness. In addition, we understand the potential cash flow needs the City may have around tax season and would be willing to work with the City on potential credit needs, such as a Revenue Anticipation Note.

4.23 Daylight Overdrafts

4.23.1 *Describe the Firm's policies concerning daylight balance overdrafts. Indicate whether this is applied to each individual account or across all accounts of a client relationship.*

Recognizing a client's credit standing, an appropriate intraday credit limit will be made available to make sure your transactions flow smoothly and efficiently through our systems. This limit is electronically verified by our Funds Transfer Balance Control System. Payments within the limit, plus the current cash position in your account, will instantly flow through to the appropriate execution mechanism.

One important feature of our system is the ability to group designated accounts together into a single relationship for intraday credit purposes. This provides for the release of payments when the total balance and intraday limit in your grouped accounts is sufficient.

4.23.2 *Describe provisions for overdraft protection as it would relate to the City, along with what constitutes a daylight overdraft situation.*

Daylight overdrafts are referenced in the context of both intra-day credit line (IDL) and intra-day liquidity (Fed daylight overdraft) usage. At J.P. Morgan, both daylight overdraft positions are calculated on a minute by minute basis.

4.23.3 *What are the fees charged on negative balances?*

The calculation for the negative collected balance charge has been provided in *Question 4.22.2* above.

4.23.4 *Is wire transfer processing stopped when the intra-day limit is reached?*

Should a payment take your account balances over the intraday limit, the transfer will be stored electronically and referred to your funds control officer for approval. If covering funds are received while the payment is stored, the transfer will be automatically released without manual intervention.

4.23.5 *If the Firm incurs a daylight overdraft charge from the Fed, will it pass this charge on to its customers? If so, how (e.g. intra-day loan, daylight overdraft facility fees)? How is the charge allocated among customers?*

J.P. Morgan does not charge clients for Fed daylight overdrafts arising in the context of normal clearing activities at this time, which is current market practice.

4.23.6 *Provide the bank's formula for calculating overdraft charges, if any, and specify when charges would be applicable.*

Daylight or intraday overdrafts will be paid without charge and are subject to J.P. Morgan's credit approval process.

End-of-day or interday overdrafts will be charged at J.P. Morgan prime plus 3%.

4.24 Tokenized Payments

4.24.1 *Does the Firm offer a tokenized payments solution, where payments can be made to an e-mail address or phone number?*

Yes, Corporate Quick Pay (CQP), our mobile and web-based payment solution, allows the City's consumers to accept payments via email or text. This innovative solution not only makes accepting payments easier for your consumers, but it is more efficient for you as well.

CORPORATE QUICK PAY BENEFITS

- Makes migration from paper to electronic easy
- Delivers economic value through less expensive payment types
- Saves time and money for your low-frequency payments
- Integrates into your existing payment process
- Makes sure your consumer gets paid, even if they take no action

Features

- Corporate Quick Pay overcomes consumer account and remittance data constraints you may face when migrating from check to electronic forms of payment.
- The City can reduce the total cost of payments by settling via Automated Clearing House (ACH) or Real-Time Payments (optional).
- Collecting and storing consumer bank account information for low-value, low-frequency payments is expensive and time consuming. Corporate Quick Pay eliminates this burden and can be used for recurring payments, as well.
- Our solution is integrated with our corporate payment platforms, which allows you to easily integrate payment initiation and reconciliation into the existing processes that you maintain.

- If your consumer takes no action, declines the payment or if you do not have their email address, we can automatically print and mail a check.

The City supplies us with your consumer's email address, payment amount, name and desired remittance data using Access Online manual entry or file upload—or by using direct transmission, including a mixed payment file option. Corporate Quick Pay then generates an email for the consumers to accept the payments for deposit into their personal bank accounts.

A recent addition to Corporate Quick Pay is the Real-Time Payments option, where payments that are deposited at a participating financial institution can be sent in real time for an additional fee.

How Corporate Quick Pay works

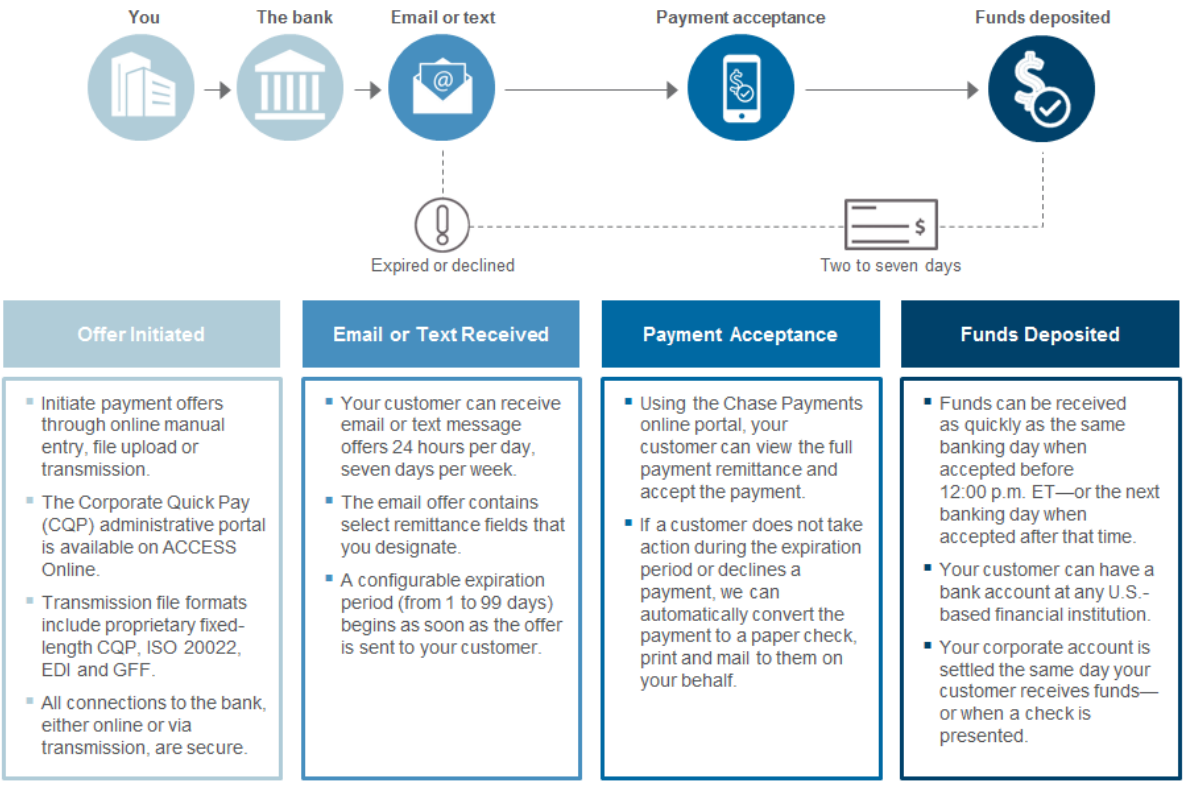


Figure 26.

4.24.2 Describe how tokenized payments to individuals are initiated. What information needs to be entered? Please provide a screen shot of this functionality from the online platform.

To process a payment offer using Corporate Quick Pay, the City needs to provide your consumer's email address or mobile phone number, payment amount, name and desired remittance data using Access Online manual entry or file upload—or by using direct transmission. Corporate Quick Pay then generates an email or text message for the consumers to accept the payments for deposit into their personal bank accounts.

Access Online/CQP offers full import functionality for payments. The City can securely import payments to the Access Online platform using the following format:

- CSV (Comma-Separated Value)

Direct submission via host to host is available in the following formats:

- ISO
- Global Flat File
- X12

The following screenshot showcases the ability of our online portal to enter manual entries of tokenized payments. Please note that minimal information is required to make a payment including recipient name, email address or cell phone and dollar amount. Other required fields such as “program name” and “description” are product level requirements confirmed during the implementation process.

Corporate Quick Pay payment initiation screen

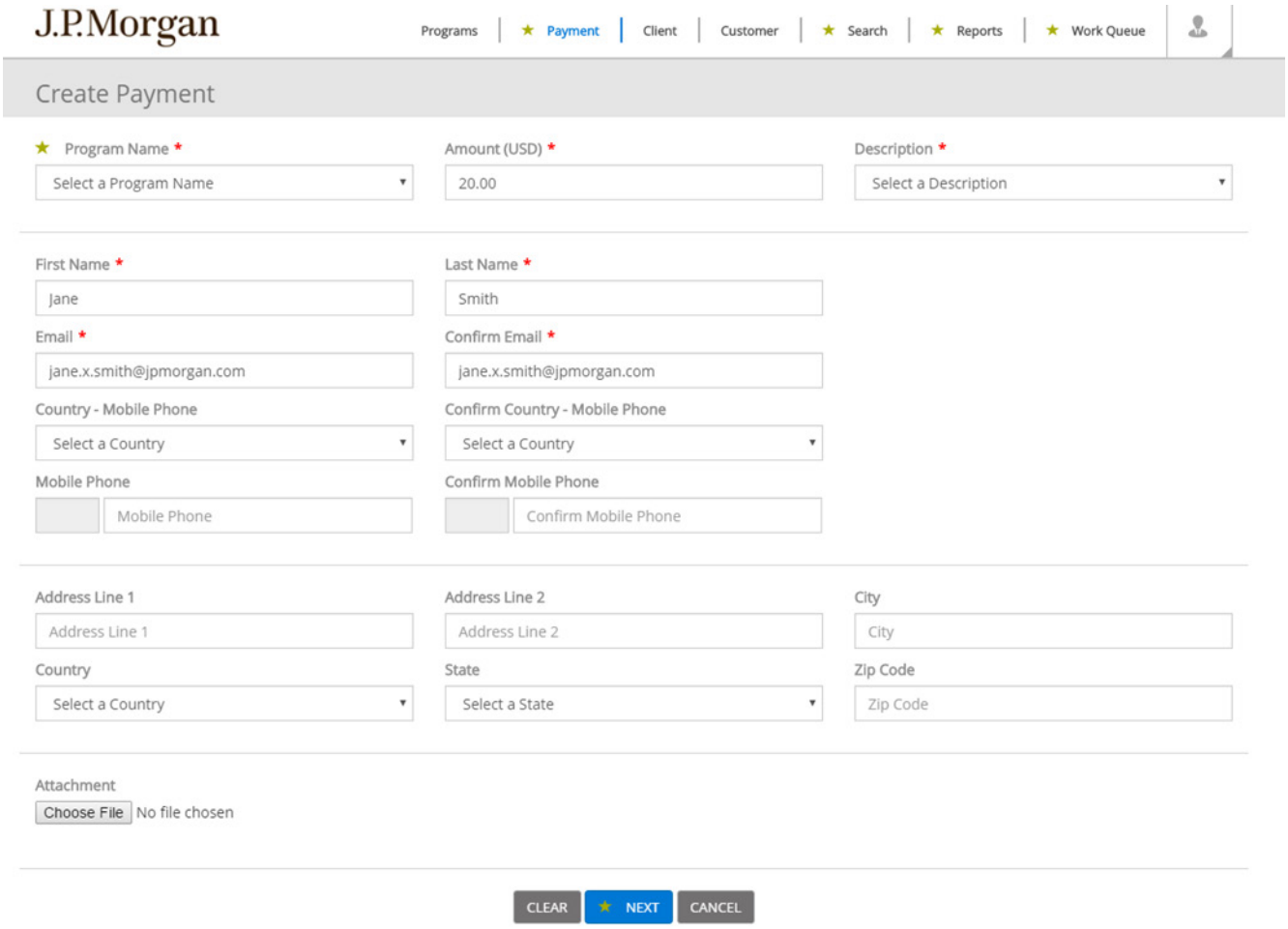


Figure 27.

4.24.3 If a tokenized payment is originated to an incorrect e-mail address or mobile phone number, is there any recourse or protections similar to those provided by NACHA?

There are several different methods the City can use to reverse payments issued in error:

- If a payment offer was sent and the recipient has not yet accepted the payment, the City will log on to Digital Payment Central and "cancel" the payment, so it can no longer be accepted.
- If the recipient accepted the payment and an ACH was initiated to the recipient's bank account, this transaction is subject to Nacha rules for reversals. To initiate an ACH reversal, the City will submit a request to J.P. Morgan via Access Online.
- If the recipient did not accept the payment within the allotted timeframe and the payment was subsequently sent as a check, the City will place a stop payment on the check.

4.24.4 Is dual authorization for tokenized payments required?

Dual authorization is not required for Corporate Quick Pay. The City can set specific user entitlements to manage access to Corporate Quick Pay through the Digital Payments Central administration portal, accessible through More Services within Access Online. The entitlements control each user's access to specific areas of the application.

4.24.5 Can a dollar threshold for individual tokenized payments be imposed?

The standard transaction limit per implementations is $150,000. J.P. Morgan performs some high-level validation to payments to reduce fraud.

During implementation, the City may choose to define a smaller limit for your program, as well as specific volume and amount limits during a designated period.

4.24.6 How long does it take the recipient to receive confirmation that they have received funds post-transmission?

After payment instructions are received from the City, the Corporate Quick Pay application will generate and distribute payment notification emails and/or texts to your consumers. Emails and text messages are generated and distributed 24/7 (except for scheduled downtime).

4.24.7 Does the recipient have to "claim" funds, or is automatically "pushed" to the individual's bank account?

We can offer both solutions to either automatically deliver via the *Zelle*[3] network for *Zelle*-enabled accounts or the recipient will be required to "claim" funds.

If *Zelle* payments are enabled, existing *Zelle* users will receive payments straight to their enrolled account. If the consumer is not enrolled with *Zelle*, notifications are sent by CQP asking the consumer to enroll with our proprietary CQP portal. The City determines the one field of remittance data that will be provided to the consumer. The consumer will have up to 14 days to accept a payment offer before it expires.

[3] *Zelle*® is a digital payments network that facilitates the easy and secure transfer of money to anyone with a U.S. domiciled bank account and email address or U.S. mobile phone number

If the consumer fails to accept the payment offer in the designated time frame, the City has the option to have us turn the payment offer into a mailed paper check, with no further action needed from you.

If *Zelle* payments are not enabled, the recipient has the option to either accept or reject the payment through our intuitive consumer portal, branded as Chase Payments. Accepted payments are sent by direct deposit into a personal bank account. For rejected payments, you have the option to have J.P. Morgan print and mail a check. The City determines the remittance data that will be provided to the consumer and the length of time the consumer has to accept a payment offer before it expires.

If the consumer fails to accept the payment offer in the designated time frame, the City has the option to have us turn the payment offer into a mailed paper check, with no further action needed from you.

4.24.8 What happens to funds that are not claimed or an e-mail address or phone number that is not already linked to a bank account?

Please see our response above.

4.24.9 Can your platform integrate with other common digital payment platforms (i.e. Apple Pay, Google Pay, Samsung Pay, Microsoft Wallet, Visa Checkout, etc.)?

No, Corporate Quick Pay currently requires the recipient to have a U.S. Demand Deposit Account and is not integrated on mobile wallet platforms. However, many of these common digital payment platforms are supported through Merchant Services. Please refer to section 5 for more information.

5 Service Group 2: Merchant Card Processing

(Only firms proposing for Service Group 2 should respond to this section.)

5.1 Describe the Firm's bankcard and debit card-processing capabilities. List all card brands currently supported.

We support Visa, Mastercard, American Express, Discover, JCB, Diners Club, PINless Debit e-commerce, PINless Debit Bill Payment networks and some private label cards. We also provide one-stop payments processing. You may submit all card types, including electronic check transactions, in one file. We process all methods of payment in the same manner, eliminating the need for you to manage separate system requirements.

We support the following payment options:

Supported payment brands and types

Mastercard	Visa	Discover	JCB
American Express (U.S. and Intl)	Electronic Check Processing (ECP)	Debit – Visa, Mastercard Check Card	Diners Club
PIN Debit	Maestro	Stored value gift cards	Private label
PINless Debit e-commerce and PINless Debit bill payment (NYCE, Star, Pulse, Accel only)	UnionPay (via Discover / Pulse agreement)	Mastercard and Visa fleet	European Direct Debit / SEPA

5.2 Does the Firm act as its own processor or does it use the services of a third-party processor?

J.P. Morgan does not currently use a third party to process and settle transactions, but we occasionally work with third parties to provide value-added services to you.

We are a merchant acquirer and manage direct links to all the payment brands, as well as several private label credit card organizations. JPMorgan Chase Bank, N.A. is our sponsoring bank and is a full member of both Visa and Mastercard. Our processing facilities operate through JPMorgan Chase Bank, N.A.'s specific Bank Identification Number assigned by Visa and Interbank Card Association numbers assigned by Mastercard. Since we have direct links to Visa and MasterCard, we settle transactions directly to the payment brands without any third-party intermediaries.

Based on your contracts with Discover and American Express, and your processing agreement with J.P. Morgan, Discover and American Express transactions can be settled through us or conveyed.

We also maintain connections to the major debit networks. This allows us to work with each entity for authorizations, funding, reporting and transaction reconciliation. There are secondary market debit networks that outsource their transaction processing, and we connect to these as well. In a few cases, we access networks through these providers due to availability, which gives us additional demographic coverage. We continuously analyze these situations and build direct interfaces when conditions warrant.

5.3 If a third-party processor is used, name the processor and the length of time the processor has had a relationship with the Firm?

Please refer to our response to *Question 5.2* above.

5.4 What is the total annual volume (in dollars and number of transactions) of merchant card transactions processed by your firm across all clients?

Processing volumes	Q32018	2017	2016	2015	2014
Bankcard volume (in billions)	$990.9	$1,191.7	$1,063.4	$949.3	$847.9

5.5 Are the City's existing merchant card terminals (see table below) compatible with your processor or are new terminals required?

Model #	Yes / No
FD130	No
FD130Duo	No
Square	No
Ingenico IPP 310	Yes

5.6 If the City needs replacement or additional terminals, what terminals would the Firm recommend? What is the cost of the recommended terminals?

We sell point-of-sale equipment through our vendor or the City may opt to obtain point-of-sale equipment that is certified to our network from a third-party vendor.

Class A terminals that are actively sold, certified and supported by us include:

- Ingenico: Desk/5000, iWL250, iPP310, iPP320
- Verifone: Vx520, Vx680, Vx820

Chase Mobile Checkout allows the City to accept credit and signature debit card payments anywhere. With a mobile device, our card reader and a client processing account, you can:

- Download the Chase Mobile Checkout app, free of charge
- Accept all major credit cards; EMV and magnetic stripe
- Process signature debit cards
- Process voids and refunds as needed
- Process with confidence using security credentials – a unique user name and password

Chase Mobile Checkout provides point-to-point encryption for processing transactions safely. When your customers' credit cards are swiped, the information is immediately encrypted, providing you with the peace of mind that sensitive data is not stored on your mobile device.

Please refer to the Merchant Services Pricing and Equipment Summary provided in the Cost Proposal.

5.7 If there are issues related to terminals (i.e. installation of new software), who should the City call? What is the average wait time for a response? If the wait time is excessive, can the City call the relationship manager for expedited assistance?

Our Client Support Center's Point of Sale Terminal Support is available 24/7/365 for troubleshooting and swap replacements. If requested prior to 12:00 p.m. PT, we will ship swap orders same-day for overnight delivery. We will send your equipment fully downloaded and tested, unless you have requested we send it blank.

5.8 Secure Payment Gateway

5.8.1 Does the Firm have a preferred secure payment gateway? Is it owned by the Firm, or is it a third-party solution? Provide information about this gateway solution.

Our Orbital Gateway service provides both a secure Internet connection to us and a virtual terminal management system. Orbital Gateway also reduces the need for the City to have relationships with several different vendors to complete electronic payments processing. This solution supports the full range of payment methods we offer and accepts transactions from any card-not-present sales channel – websites, call centers and mail-order departments.

Our Orbital Virtual Terminal, a component of the Orbital suite, provides full management of your transactions and payment-capture options. Through Virtual Terminal you may set one default "auto-close" time during set-up, and your activity will automatically close at this time on a daily basis.

Fast response times and 24/7/365 availability

We strive for excellence by providing the City with high capacity and up-time payments processing, and our Orbital Gateway offers the same levels of throughput and response time, along with 24/7/365 availability. As a combined gateway and merchant processing service, Orbital Gateway helps prevent your exposure to the risks of additional "transaction hops" inherent when using third-party gateways. Our redundant Internet connections and servers help reduce single points of failure at the hardware, network and application levels. We install our networking equipment in identical, cross-connected, auto-failover pairs, with identical sets for each service we provide. At the application level, servers provide both load balancing and auto-failover when using network and database resources. The result is high service availability that automatically recovers – all without interruption of service delivery.

Easy integration

Orbital Gateway offers both an XML and Web services (SOAP) interface to process transactions over the Internet and easily integrate with other XML and Web services-capable platforms. We offer our Merchant Services Software Development Kit (MSDK) to help you with integration. The MSDK Core Interface is available for Java and .NET. The MSDK Universal Interface is programming language agnostic and supports JSON, XML, CSV and URL Encoded data formats.

Benefits of Orbital Gateway

Our Orbital Gateway service provides the following benefits:

- Secure Internet processing (HTTPS or SFTP) with username/password authentication
- Browser-based Virtual Terminal interface
- 24/7/365 customer support
- Online authorization and online capture
- Wide range of payment methods
- Level 2 and Level 3 purchasing cards (U.S.)
- XML interface, Web Services (SOAP) or SDKs available
- Two batch processing interfaces (XML and CSV)
- Customer Profile Management, a robust form of tokenization
- Safetech Token support
- Managed Billing
- Safetech Fraud Tools
- Hosted Payment Solution
- Enhanced Authorization
- Print, email and text message receipts
- Managed Account Updater
- Transaction data storage of up to 13 months
- Duplicate checking (Retry Logic)
- Management of split shipments, back orders and reversals
- Authorization recycling in the case of soft declines
- Merchant selectable response features
- Chase Pay transaction support

Guide to processing with Orbital Gateway

Orbital Gateway offers you a secure way to simplify online processing. To ensure that you understand payment card processing in relation to the gateway, we offer an online guide. Clients may access the guide through our Developer Center.

Additional turnkey options

We provide you with turnkey processing solutions, as well as programs that utilize the power of the Internet. In addition to our Orbital Gateway, we offer NetConnect Internet communications protocol to communicate directly to the host, when coding to the host specifications. In some cases, you can use NetConnect Batch for secure file pickup via an Internet connection.

5.8.2 Describe your ability and experience in processing transactions that initiate from the following applications or payment gateways (Note: Please address each Software Application individually).

Department/Division	Current Software Application or Gateway	Yes/No
Municipal Services	**CORE One Step**	Yes, with Payware gateway
Municipal Services	**CyberSource**	Yes
Municipal Services	**Harris NorthStar**	Yes, with Cybersource gateway
Municipal Services	**Paymode**	Further discussion with the City required
Library	**CyberSource**	Yes
Library	**PayPal**	Yes
Parks & Recreation	**Active.net**	Yes
Parks & Recreation	**Vendini.com**	Yes
Permit Center	**CyberSource**	Yes
Permit Center	**CORE One Step**	Yes, with Payware gateway
Police	**CORE One Step**	Yes, with Payware gateway

5.9 Is your organization, including all subcontractors and third-party processors, in compliance with all applicable Payment Card Industry Data Security Standards (PCI DSS)? Have you been certified by a third-party assessor?

We are compliant with the Payment Card Industry Data Security Standards (PCI DSS). You may view our compliant status on the Visa and Mastercard websites:

Visa: http://www.visa.com/splisting. From Visa's Global Registry of Service Providers webpage, navigate to "Search Service Providers" and enter "Paymentech, LLC" in the "company" field of the search criteria in order to view the file that shows Chase Paymentech as compliant.

Mastercard: https://www.mastercard.us/en-us/merchants/safety-security/security-recommendations/service-providers-need-to-know.html. Click on the "Download List" and search "Paymentech, LLC" as the provider name.

5.10 What do you require from the City for PCI compliance validation?

Level 1, 2 and 3 merchants are required to validate PCI DSS compliance annually with their acquirer by the Visa CISP and Mastercard SDP programs. Revalidation is required annually on the anniversary date of the previous submission. Companies submit the required documentation to the Merchant Compliance team via their relationship manager. Required documents include:

- A completed Report on Compliance (ROC) or Self-Assessment Questionnaire (SAQ). A single ROC or SAQ is acceptable for all merchant IDs. Any compensating controls must be reviewed and approved by the DSSC team prior to accepting the ROC/SAQ. Electronic copies are welcome.

- An executed Attestation of Compliance (AOC) signed by a C-level executive (usually the CSO or CIO) or another employee possessing sufficient authority to sign a contractually binding document. Electronic copies are welcome, but a physical signature is required.
- The Executive Summary or the Attestation of Scan Compliance from the current (within the last 90 days) network vulnerability scan performed by an Approved Scanning Vendor (ASV) showing no high or medium vulnerabilities.

5.11 Describe the process and features of your program to assist merchants in becoming and remaining PCI compliant. Is there a fee? If so, is the fee based on terminals, merchant ID, or other method? Is this a mandatory charge?

We do not charge a fee for our assistance. Our Merchant Compliance team is dedicated to PCI compliance. The team serves as an industry leader, fostering adoption of cardholder data security compliance programs by our thousands of Level 1, 2 and 3 merchants, their service providers and payment application providers in the U.S., Canada and Europe.

Preventive

- Proactive outreach – Whether an update on payment brands' rules, a point-of-sale security alert, or a potential compromise, we notify clients often before they realize there is an issue.
- Annual training – Clients have access to yearly training sessions to engage with us and PCI Council representatives, payment brands and industry experts to become informed on the latest PCI information.
- Direct connection with payment brands – We can facilitate direct conversations with the payment brands for advocacy and dispute resolutions purposes.

Detective and responsive

- Unparalleled insight – Our direct access to issuer-identified fraud trends allows us to quickly alert affected companies about impending fraud.
- Quick detection and response – Faster fraud detection and alerts from Chase's card-issuing business means earlier responses to our clients. Our unique position allows for quicker information flow to our clients for both fraud- and PCI compliance-related issues.
- Compliance optimization – We distill the complex world of payment brands' rules and PCI requirements to help organizations obtain an optimal set of compliance standards.

5.12 Do you require a Self-Assessment Questionnaire ("SAQ") for each merchant ID or a single SAQ for the entire City?

A single ROC or SAQ is acceptable for all merchant IDs. Any compensating controls must be reviewed and approved by the DSSC team prior to accepting the ROC/SAQ. Electronic copies are welcome.

5.13 What type of data security solutions (tokenization, end-to-end encryption, point-to-point encryption) do you offer? Describe the solution in detail.

Tokenization is a security process that replaces the Primary Account Number (PAN) data with a surrogate value known as a "token." The token serves as an identification tool by the systems and applications within your client environment. Once a PAN is tokenized, you use the token in lieu of your

customer's account number. A token allows the City to reduce the need to store cardholder data by offloading the PAN storage while using the token instead.

We offer tokenization solutions through the following services:

Safetech Tokenization

Safetech Tokenization delivers a tokenization service designed to protect customer data and reduce PCI scope. Using our Safetech Tokenization service, you receive an authorization response message that includes a token rather than the actual cardholder data. The token is tied to the actual numbers in the PAN and you can use it repeatedly in place of the card account number. We are able to support omnichannel tokenization via Safetech Tokenization for both card-present and card-not-present transactions by coding directly to our platforms or via the Orbital Gateway. This enhancement allows clients to generate a token in an e-commerce environment and subsequently utilize the same token in a retail setting, or vice versa.

While tokenization can help you secure customer payment data, many business processes may rely on the standard numeric formats of credit or debit card account numbers. Safetech Tokenization allows you to select formats that preserve the first six and/or last four digits of an account number. With this new tokenized account number, you can now retain the card expiration date and the tokenized card number for future card-on-file purchases. This helps you:

- Provide the last four digits on a receipt
- Perform BIN management (up to the first six digits of a card)
- Provide card on file payment options to customers, and other operational tasks

The format of a token is 16-19 characters with your choice of multiple formats:

- Completely random value
- Last four digits of the card number
- First six or last four digits of the card number
- First six or last four digits of the card number with alpha characters forced in the remaining characters

Safetech Page Encryption with Safetech Tokenization

Using our Safetech Page Encryption with Safetech Tokenization services, PAN data is encrypted in the consumer's browser prior to sending an encrypted authorization request and receiving an authorization response message that includes a token. The token is tied to the actual numbers in the PAN and you can use it repeatedly in place of the card account number.

Customer Profile Management

Our Orbital suite of services includes Customer Profile Management, a robust tokenization service. This functionality securely stores your customer data in the Orbital Gateway along with a token known as a profile ID. The use of a token supports your Payment Card Industry (PCI) compliance initiatives. A profile can be created as a distinct action or as part of a transaction request and there is no limit on the

number of profiles that can be created. Once created, with a customer's payment account information, unique profile ID (token), and optional customer information, you can process subsequent transactions with the assigned profile ID. The token eliminates the need to submit an account number in a financial transaction.

At any time, you can retrieve, update or delete a customer's information from your profiles. You can control employee access to information through the Virtual Terminal by assigning different levels of rights and permissions. Use of Customer Profile Management:

- Reduces risk – Store your sensitive customer data offsite in the Orbital Gateway without incurring secure data storage costs
- Increases efficiency – Reduce data entry errors by retrieving pre-existing profiles
- Simplifies transaction processing – Streamline processing for repeat customers
- Supports multiple methods of payment – Along with tokenizing the credit card PAN, it also supports PINless Debit e-commerce, PINless Debit Bill Payment, Electronic Check Processing (ECP), European Direct Debit (EUDD) and Maestro
- Provides flexibility – Can be tied to an order (transactions based) or not tied to an order
- Simplifies hierarchical structure – Can be shared across Divisions (merchants) if set up at the Company (chain) level
- Supports information storage – In addition to payment method details, can also store additional customer profile data such as name, address, market, zip, phone number and email address

The format of a token is 1 - 22 alpha-numeric characters and you can determine whether you want to provide the Profile ID value, or have the Orbital gateway automatically generate a unique value for each Profile.

Account Updater

Each tokenization solution allows you to use our Account Updater solution as well. Whether tokens are passed back and forth to obtain updated card account information or stored profiles are automatically updated with our Orbital Gateway, if Safetech Tokens are not stored in the profile, Account Updater allows you to keep your cardholder account information up-to-date.

5.13.1 If you offer multiple security options, which do you recommend for the City and why?

Further discussion with the City would be required to understand which security options are certified with the City's current credit card processing software applications and/or gateways.

5.13.2 Provide complete pricing details for the recommended data security method, including all fixed and transaction costs.

Please refer to Schedule A and the Merchant Services Pricing and Equipment Summary provided in the Cost Proposal.

5.14 What process do you use to ensure that transactions qualify for the lowest interchange category? Do you provide any review of account activity to help identify opportunities to improve qualification rates?

We work consistently to help the City qualify for the lowest interchange rates available. The following business practices and system features illustrate our continuous effort:

- The Client Service regularly analyzes your interchange rates, making recommendations on actions you can take to qualify for more favorable interchange rates, including implementation of new business practices and/or products and services.
- Our automated interchange management and monitoring process provides you the benefit of an optimal fee structure and helps minimize the overall interchange clearing expense.
- Our extensive edit process helps ensure that non-qualifying transactions are successively cleared at optimal rates for which they can qualify.
- Our system-generated exception reporting capability monitors, reports and reviews downgrades at a certain threshold or higher.
- We provide ongoing communication, education and support to promote interchange best practices.

5.15 Do you offer any reports that alert the City to abnormal activity that is resulting in transactions being downgraded and processed at higher interchange rates? How quickly are these alerts available (i.e. real-time, after month-end, after quarter-end, or after a relationship review)?

Our Paymentech Online reporting tool provides the following interchange exception management reports:

- Interchange Qualification Detail (ANS-0013) – Provides detail of front-end interchange downgrades
- Interchange Qualification Summary (ANS-0016) – Provides a summary of interchange qualification levels
- Interchange Downgrade Summary (ANS-0017) – Summarizes front-end downgrades by card type and downgrade reason code

5.16 Describe the special emerging market interchange rates applicable for utility payments received by the City. What is required to qualify for these special interchange rates?

Visa CPS/Utility Credit applies only to MCC 4900 (Utility). MCC 4900 includes utilities such as water, gas, waste management and electricity. Visa does not consider heating oil and propane eligible for the Utility rate.

- Registration Required.
- Applies to Consumer Credit, including Rewards, Signature and Infinite cards.
- Transactions must meet CPS Requirements.
- Must be electronically authorized. Transaction may be swiped or keyed.
- Transactions not meeting CPS requirements will not qualify and will be classified accordingly (i.e. EIRF, etc.).

MasterCard Utility Credit is restricted to MCC 4900 (Utility) and U.S. Consumer Cards only.

- Electronic authorization required (voice authorizations, code 10, referrals, etc., qualify at Standard).
- Transaction must be settled within two days.
- Program registration no longer required effective October 2010.

5.17 Describe the Firm's capabilities of accepting new payment methods, such as Apple Pay, Google Wallet, etc. What hardware or software changes would be required?

New methods of payment are added per our internal service team's review and approval. All functional and business requirements needed to support a new method of payment are thoroughly assessed before we add to our payments capabilities.

We distribute electronic communications when new methods of payment become available. Your client service team may also directly communicate these changes via conference calls, meetings or emails.

The level of effort required to support a new method of payment is dependent on our system's design to support the payment. This could include the simple use of a new method of payment code or using a new method of payment code and new format indicators, extension or product records, or message fields.

We support the following mobile wallet solutions:

Chase Pay

Designed to deepen customer loyalty and help clients manage costs, Chase Pay is a complete payment service that brings together our business and consumer clients to create a better experience for their common customer. Chase Pay is a simple, rewarding and secure payment service for use in-app and online. Nearly 62 million Chase cardholders are eligible to use Chase Pay for everyday purchases at national retailers, restaurants and gas stations. Visit www.chasepay.com for the latest product features and announcements.

Chase Pay benefits clients by providing simplified pricing and zero fraud liability for Chase Pay transactions run on ChaseNet. ChaseNet is a closed-loop payments platform that processes Chase-issued U.S. domestic Visa credit and debit transactions directly to Chase through us, instead of through the traditional payment model.

Apple Pay

We are able to process point-of-sale (in-person), in-app, and e-commerce (on the Web), transactions initiated from an Apple Pay wallet.

For Apple Pay point-of-sale transactions, we are able to accept contactless transactions initiated from an NFC-enabled terminal. We support point-of-sale transactions in the U.S. and Canada.

For both in-app and e-commerce transactions, we offer clients a JSON API for debundling or full processing of the transactions via Orbital Gateway. For clients that want greater control and business logic flexibility, our server-side solution is fully capable to receive the network token, cryptogram data and in-app/e-commerce indicator directly through our standard message formats. During implementation, our consulting team will evaluate your needs to advise you on the appropriate integration model for an in-app and e-commerce solution.

We can process Visa, Mastercard, American Express and Discover for Apple Pay wallet transactions.

Google Pay

We are able to process point-of-sale (in-person), in-app and e-commerce (on the Web) transactions initiated from a Google Pay wallet.

For Google Pay in-app and e-commerce transactions, we offer clients a JSON API for full processing of the transactions via Orbital Gateway. We are fully capable of receiving the network token, cryptogram data and in-app/e-commerce indicator directly through our standard message formats. During implementation, our consulting team will advise you on the integration requirements for an in-app and e-commerce solution.

For Google Pay point-of-sale transactions, we are able to accept contactless transactions initiated from an NFC-enabled terminal. We support point-of-sale transactions in the U.S. and Canada.

We can process Visa, Mastercard, American Express and Discover for Google Pay wallet transactions.

Samsung Pay

We are able to process point-of-sale (in-person) transactions initiated from a Samsung Pay wallet.

For Samsung Pay point-of-sale transactions, we can accept traditional magstripe transactions simulated through MST and contactless transactions initiated from an NFC-enabled terminal. We support point-of-sale transactions in the U.S. and Canada.

We can process Visa, Mastercard, American Express and Discover for Samsung Pay wallet transactions.

Click to Pay

EMVCo has launched its Secure Remote Commerce framework, resulting in the consolidation of Mastercard Masterpass, Visa Checkout and American Express Checkout into a single, brand-agnostic e-commerce button called Click to Pay. We are able to process e-commerce (on the Web) transactions initiated from a Click to Pay card on file wallet.

For Click to Pay, we offer clients a JSON API for full processing of the transactions via Orbital Gateway. We are fully capable of receiving the network token, cryptogram data and e-commerce indicator directly through our standard message formats. During implementation, our consulting team will advise you on the integration requirements for an e-commerce solution.

We can process Visa, Mastercard, American Express and Discover for Click to Pay wallet transactions.

5.18 What wireless acceptance options are available? If this wireless option is used for multiple events, how can amounts be segregated for each event (i.e. is there a log in feature and if so, can multiple accounts be set up)? What is the cost for these devices?

Chase Mobile Checkout allows the City to accept credit and signature debit card payments anywhere. With a mobile device, our card reader and a client processing account, you are able to:

- Download the Chase Mobile Checkout app, free of charge
- Accept all major credit cards; EMV and magnetic stripe

- Process signature debit cards
- Process voids and refunds as needed
- Process with confidence using security credentials – a unique user name and password

Chase Mobile Checkout provides point-to-point encryption for processing transactions safely. When your customers' credit cards are swiped, the information is immediately encrypted, providing you with the peace of mind that sensitive data is not stored on your mobile device.

We sell point-of-sale equipment through our vendor or the City may opt to obtain point-of-sale equipment that is certified to our network from a third-party vendor.

Class A wireless terminals that are actively sold, certified and supported by us include:

- Ingenico: iWL250 bluetooth
- Verifone: Vx680 wireless or Bluetooth

Please refer to the Pricing and Equipment Summary provided in the Cost Proposal.

5.19 Describe your debit card processing capabilities. Which networks can you use to support both pin-based and signature-based transactions?

We offer a complete debit solution for signature-based and PIN-based online processing as well as PINless Debit e-commerce and PINless Debit Bill Payment processing. PINless Debit Bill Payment approval is at the discretion of the debit networks that support PINless (e.g. STAR, NYCE). We have gateway or direct connections to most of the major PIN debit networks, including STAR, Interlink, NYCE, PULSE, Accel, Maestro and Shazam, and we support AFFN, CU24 and Jeanie through our gateway provider in the U.S. All of our PIN or PINless Debit transactions can have the following routing capabilities available:

Product	Offering
J.P. Morgan Managed Routing	We will define multiple static hierarchies to accommodate the following transactions parameters: • Regulated status (exempt or regulated) • Merchant Category Code (MCC) • Sales amount of transaction – multiple tables supporting different hierarchies based on the sale amount of the transaction for exempt transactions; single static order for all regulated transactions regardless of ticket size The hierarchies are maintained by our Payment Network Office. This solution is best for clients who would like J.P. Morgan to manage their routing orders.
Merchant Managed Routing	The client will be able to provide multiple static hierarchies based on: • Regulated status (exempt or regulated) • Sales amount of transaction – multiple tables supporting different hierarchies based on the sale amount of the transaction for exempt transactions; single static order for all regulated transactions regardless of ticket size The hierarchies can be updated daily, with changes taking effect at close of business for the processing day during which the update was submitted.

Product	Offering
Message Directed Routing	The client can provide a network indicator in the inbound authorization request indicating the network where the transaction should be routed. If the indicated network is not available, the transaction will be routed based on the underlying static network hierarchy table.
Cost Based Routing (CBR)	Upon receipt of an authorization request, the BIN will be evaluated to determine the entitled debit networks. The cost of acceptance for each entitled network is calculated, inclusive of interchange and network fees. The transaction will then be routed to the lowest cost alternative. Cost Based Routing is also optimized for petroleum, dual message merchants, allowing the average ticket assignment to be used as the cost consideration when routing to the lowest cost network. Clients can also elect to receive a daily transaction report that includes all transactions routed using Cost Based Routing, the calculated cost for the selected and all other entitled networks. This solution is limited to eligible clients.
Volume Managed Debit Routing	Volume Managed Routing adds support for client volume threshold management. Often, large clients have agreements in place with one or more debit networks that provide rebates in consideration for transaction volume or sales volume commitments. Clients will be able to designate “preferred networks” and establish routing volume parameters. Upon receipt of an authorization request, the transaction will be evaluated to determine if it is entitled for one or more of the “preferred networks.” If a preferred network is available and the volume commitment has not yet been met, the transaction will be routed to that network. If the transaction is not eligible to be routed to a preferred network or if the transaction is eligible to be routed to a preferred network but the volume commitment has already been met, the transaction will be routed utilizing cost-based routing logic. This solution is limited to eligible clients.

Our debit offering also includes BIN file management.

Our online debit card service supports all types of transactions, including sale, return and cash back. Our service interfaces with your point of sale (POS) and/or electronic cash register. This service operates in an online “host-capture” PIN-encryption supported environment, authorizing, capturing and settling bank, proprietary, EBT and other direct-debit POS cards.

Our goal is to help the City maximize your PIN debit processing while lowering your transaction processing costs; therefore, we monitor volume tiers to verify you are qualifying for your best possible rate. Additionally, our Debit Network Relations group joins efforts with client service teams and their PIN debit clients to coordinate and facilitate discussions with the debit networks regarding the client’s rates.

5.20 Does your processing system identify and eliminate duplicate transactions?

We take the following measures to identify and handle duplicate transactions:

Quality control/duplicate detection overview

Duplicate detection is a quality control (QC) check we perform on files deposited to us for settlement. We perform some quality assurance checks on submitted files as we are receiving them; however, we can only completely perform duplicate detection once we have fully received the file.

Our duplicate detection process is part of our standard processing offering. It is intended to work in conjunction with a client’s internal duplicate detection program, not as the only edit check. We store

each processed transaction in a proprietary database for seven days, plus the current day. We base a duplicate transaction on five criteria: credit card, dollar amount, division number, action code and order number. We compare every new authorization and deposit to the database to determine whether it is a duplicate.

Our duplicate detection solution identifies duplicates at the transaction level, across the entire database. We measure the percentage of duplicates in each file and set thresholds defined by the client to determine when to hold the file from deposit when duplicates occur.

Prior authorization detection

If a duplicate transaction is authorization only, we provide the previously issued valid authorization code from our database, preventing a second authorization to the cardholder's account. This service sustains consumer good will by avoiding inadvertent billing errors. If a client/presenter submits a file for deposit, we will flag the stored authorizations as "used," based on the logic that authorizations can only be exercised once.

File transmission failures at the transaction level details

When some or all of the records we receive are duplicates of previous records, three percent or more of the file must be a duplicate before it fails. If a submitted file contains at least three percent detected duplicate transactions, our system will put the file on hold. If the file contains at least five duplicate transactions and the file is worth at least $2,500.00, our operations staff will contact the client or the presenter's designated operations contact within one hour. If the file transactions are worth less than $2,500.00 or the file contains less than five duplicate transactions, our policy is to process the file unless it contains 100 percent duplicates. If the client does not call us back by 11:00 a.m. PT the next day, we will cancel the file that was placed on hold.

We then provide the client with detailed information on the duplicate transactions and the date(s) they were originally processed. The client must decide to allow the file to process or to cancel. Please note that duplicates over three percent must have the approval of our senior director of Production Services.

File transmission failures at the file header level details

Clients may choose to have duplicate detection performed at the file header level. Each file header record must be unique for at least 30 days. If clients/presenters send the same file header on subsequent files, it will be put on hold and our operations staff will contact the client's or the presenter's designated operations contact. The client must decide to allow the file to process or cancel it. If the client does not return our call by 11:00 a.m. PT the next day, we will cancel the file that was placed on hold.

5.21 What is the latest time you can receive card transactions for settlement on the next business day, assuming the deposit is made at your Firm? Are there any transactions that would not receive next day availability?

Next business day funding is available for U.S. clients who settle to a J.P. Morgan DDA*. Next business day funding is available to clients in Canada who settle by wire to a J.P. Morgan DDA*. Accelerated weekend funding may be available for both U.S. and Canadian clients who settle to a J.P. Morgan DDA*. This option provides funding for Saturday and Sunday activity on Monday as opposed to

Tuesday. Accelerated weekend funding is available upon request and is dependent on product approval.

We process settlement files seven times throughout the day. Our standard cut-off settlement time is 7:00 p.m. PT. Non-bank card deposits are electronically conveyed for settlement to the appropriate company, and you receive payment directly from that company. You may send all card types in one file; there is no need to send separate files for non-bank card transactions.

Based on your contracts with Discover and American Express, and your processing agreement with J.P. Morgan, Discover and American Express transactions can be settled through us or conveyed.

For standard processing, Saturday and Sunday settlements are grouped with Monday's settlements for transferring funds to your bank account(s). Our reports, however, break out each day's deposits, fees, chargebacks, etc., in detail, including Saturday and Sunday. U.S. and Canadian clients who do not fund to a J.P. Morgan DDA may also be considered for accelerated weekend funding with approval.

Our multibank account system allows you to choose one or many bank settlement accounts in one or many financial institutions. Each merchant number you establish is linked to a specific bank settlement account.

All transactions received by time noted above will be sent to your bank for value as defined below. On bank holidays, transfers will occur one business day later than normal.

U.S. clients

Day of file receipt	J.P. Morgan DDA* client day paid via ACH or wire USD	Non-J.P. Morgan DDA client day paid via ACH USD	Non-J.P. Morgan DDA client day paid via wire USD
Sunday	Monday**	Wednesday	Tuesday
Monday	Tuesday	Wednesday	Tuesday
Tuesday	Wednesday	Thursday	Wednesday
Wednesday	Thursday	Friday	Thursday
Thursday	Friday	Monday	Friday
Friday	Monday	Tuesday	Monday
Saturday	Monday**	Wednesday	Tuesday

*The designated settlement account for merchant funds must be a DDA with JPMorgan Chase Bank, N.A.
**Accelerated weekend funding must be requested and is dependent upon credit approval

5.22 How do merchant card batches appear in the City's bank account? (1 deposit per MID, 1 deposit for all MIDs per day, other)

Fedwire and ACH funds transfers are separated from each other on bank statements. Individual Fedwires are separated from each other on bank statements. We send each ACH individually; however, your bank's reporting determines whether the individual ACHs are separated. Our processing platform operates seven days per week. We treat each day's activity separately, even if there are multiple deposits on that day.

5.23 Confirm that interchange fees will be deducted at the end of the month. If not, when will fees be deducted from the bank account?

If you are set up for net settlement, we credit sales and refunds less chargebacks and returns, processing fees, interchange fees, miscellaneous adjustments, and dues and assessment fees to your bank account daily in one Fedwire or ACH funds transfer.

If you are set up for gross settlement, we credit sales and refunds less chargebacks and returns to your account daily via Fedwire or ACH funds transfer. We charge processing fees, interchange fees, miscellaneous adjustments, and dues and assessment fees to your bank account in a single or multiple separate ACH funds transfers in the first few days of the following month.

5.24 Confirm that the processor's fees will be deducted at the end of the month. If not, when will fees be deducted from the bank account?

Please refer to our response to *Question 5.23* above.

5.25 Can the City provide documentation in response to chargebacks online? If needed, is there a designated contact person to handle chargebacks for the City?

We will assign a chargeback analyst that will serve as your single point of contact for all chargeback issues, with additional assistance from your client service team. Your chargeback analyst reviews chargebacks for proper documentation and adherence to the payment brands' rules and regulations. They work with you to address and process all items within the required time frames to preserve your dispute rights.

The interactive Chargeback Management module enables clients to manage disputes/chargebacks and retrievals online. Users can view and respond to inquiries, dispute or accept disputes/chargebacks, and fulfill retrieval requests. Clients can respond to us by providing a scanned sales receipt, other documentation, or a combination of both. Dispute/chargeback information is updated three times each day.

Upon receipt of disputes/chargebacks from issuers, when we can, we automatically respond on the client's behalf. If additional information is needed, we post the dispute/chargeback to the Online Chargeback Management interface. Clients review a dispute/chargeback and upload documentation as needed. Access to documentation associated with a dispute/chargeback makes it easy for clients to manage the entire process from their computer. We also post retrieval requests for clients to access and respond to by uploading a scanned image of the signed sales slip.

Online Chargeback Management enables clients to:

- Minimize paper processing and reduce mailing costs as you manage disputes/chargebacks through our online chargeback management interface
- Help reduce manual intervention by uploading dispute/chargeback documentation directly into the chargeback management system
- Help simplify dispute/chargeback processes with an online interface that is designed to be easy to use

Our optional Multiple Document Upload feature enables you to electronically transmit dispute/chargeback images to the Online Chargeback Management system, which are then matched directly to the dispute/chargeback and retrieval cases without additional manual intervention.

To set up Multiple Document Upload, you must complete a minimal amount of coding. Availability of Multiple Document Upload is determined by how you integrate to us and additional development is

required. After setup, you will receive the E-Image Upload Report (ACT-0062) each day, which details any exceptions that did not upload correctly. We recommend that you receive the Delimited File Chargeback Activity Report.

5.26 Describe the Firm's online capabilities to review merchant card transactions. Is transaction information available by terminal or merchant identification number?

Paymentech Online provides the City with 24/7/365 Internet access to information within four main applications:

- Report Center
- Transaction History
- Chargeback Management
- Bank Information

Paymentech Online also provides access to a range of user guides, forms, technical specifications and other documentation. You can perform online searches of the database, alleviating the need to call our Client Support Center or the IVR system. Paymentech Online is also a great customer service tool, since you can access crucial information while your customer is on the phone.

Reports – whether daily, weekly or monthly – are generated at the end of your processing day and typically ready for you to view the morning of the next business day.

The table below represents a small subset of our client reporting portfolio. There are 100-plus reports that provide processing detail, summary and analytics.

Paymentech Online report listing	Report content description
Deposit Activity Summary (FIN-0010)	Contains activity, financial, fees and adjustment and funds transfer summaries
Service Charge Detail (FIN-0011)	Details interchange and assessment, and fees assessed
Adjustment Detail (FIN-0002)	Identifies adjustments posted to a client's account
Financial Activity Summary (FIN-0025)	Summarizes net financial activity, fees, adjustments, balances and funds transfers daily for the current month
Submission Listing (ACT-0012)	Provides a listing of submissions received on behalf of a client with summarized transaction information for each submission
Single Submission Summary (FIN-0053)	Provides transactional information for a single submission grouped by action code and method of payment. This report is displayed via a hyperlink from the Submission Listing
Exception Detail (ACT-0002)	Transaction-level detail for declined deposits, front-end edit rejects and cancelled/on-hold items
Deposit Detail (ACT-0010)	Transaction-level detail for all deposited transactions
Funds Transfer Summary (FIN-0041)	Summarizes information for bank deposits that occurred during the report period. This information is also available on the Deposit Activity Summary

Paymentech Online report listing	Report content description
Deposit Activity by Hierarchy (FIN-0108)	Provides a summary of activity by hierarchy level in a spreadsheet format; can be requested as an alternative to the Deposit Activity Summary
Funds Transfer Detail – Net (FIN-0042)	Provides details regarding activity and source entities that contributed to a specific funds transfer (for all net-settled clients)
Chargeback Received (PDE-0020)	Provides transaction-level detail for disputes/chargebacks (CB) received
ECP Return Activity (PDE-0018)	Daily report provides financial summary and transaction-level detail of Electronic Check Processing (ECP or eCheck) returns activity; monthly report summarizes ECP returns activity by reason code
Debit Adjustment Detail (PDE-0036)	Lists the debit adjustments received by us during the reporting period
ECP Notification of Change (ACT-0019)	Provides updated consumer account information for ECP transactions
Reserve Balance Summary (RES-0003)	Summarizes the activity and adjustments affecting dispute/chargeback, ECP or other reserve balances
Reserve Detail (RES-0004)	Provides the details of adjustments and activity that affected reserve balances during the reporting period
Terminal/Batch Detail (ACT-0027)	Provides transaction-level detail for sales and refunds received from a POS
Terminal/Batch Summary (FIN-0027)	Summarizes by MOP and subtotals by batch, transaction count and amount of sales and refunds received from a POS
Monthly Terminal/Batch (FIN-0028)	Summarizes by transaction division the total transactions processed by a POS terminal or similar electronic device for a month
Interchange Qualification Detail (ANS-0018)	Provides transaction-level detail for front-end downgrades
Interchange Qualification Summary (ANS-0016)	Provides summary by card type and interchange rate for all front-end downgrades
Interchange Downgrade Summary (ANS-0017)	Summarizes front-end downgrades by card type and downgrade reason code
Chargeback History to Sales – Visa (RSK-0002)	Tracks compliance with monitoring program guidelines for Visa U.S. and Visa International
Refund Exception Detail (RSK-0007)	Identifies refunds that do not match prior sales transactions, an indication of potential fraud or processing issues that may lead to loss of revenue

Additional reports and options

In addition to online reporting, we offer Delimited File Reporting (DFR) for select reports. If you prefer to receive your reports in an electronic format that you can import directly into your internal accounting or data management systems, you may choose to receive reports in DFR format. This reporting product

expedites and streamlines daily operational processes by adding data automation to existing reconciliation, exception processing or information analysis processes. The tool seamlessly integrates with other accounts receivable and general ledger applications, as well as common database and spreadsheet applications or virtually any software that accepts input of delimited data.

With all the flexibility built into Paymentech Online, the variety of reports available and the ability to define your hierarchy structure, as well as the export functions, the necessity for ad hoc reporting is rare. If a reporting request cannot be satisfied with the standard options, your client service team will work with you in attempting to meet your business requirements.

Reporting demonstration

We offer an online demonstration of the Paymentech Online reporting tool. Our brief presentation shows the features of Paymentech Online. The following is the link to our reporting demonstration: Paymentech Online Reporting Demonstration.

5.27 Describe the daily and/or monthly reconciliation reports available. Can summary reports by department or organization be created? Are these standard or custom reports created by individual users?

Please refer to our response to *Question 5.26* above.

You can customize report data elements within the scope of the report you are viewing to meet your specific requirements. Our reporting does not support ad hoc reports that contain a combination of data elements outside the scope of a specific report. Our Delimited File Report EDI solution provides access to cross-scope data elements that you can manipulate.

5.28 Can reports be downloaded into Excel? Will the reports show details about all fees paid to card-issuing banks, card associations, and the payment processors?

Our Web-based reporting solution provides access to reports 24/7/365 in a variety of user-controlled formats. You can view, download and print reports using a variety of formats that include Hypertext Markup Language (HTML), Portable Document Format (PDF), Rich Text Format (RTF), MS Excel and a variety for delimited flat file formats.

You control access to your reporting data. If you authorize access for a third-party user, either Web-based or through Delimited File Reporting (DFR) delivery, report data may be delivered to the third party.

On-demand reporting is available to meet specific reporting needs that include unique date ranges and/or specific hierarchy levels. You can request an on-demand report through your client service team or the Client Support Center. Once we generate an on-demand report, we place it in your on-demand folder, which you can access through the Report Center on Paymentech Online. You can view, save or download on-demand reporting by following the same procedures as for the daily, weekly or monthly reports. If a reporting request cannot be satisfied with the standard options, your client service team will work with you in attempting to meet your business requirements.

5.29 How many City employees will the Firm permit to access the online reporting system with a unique log on identification? Are there varying user entitlements where certain users are limited to only seeing the last 4 digits? Is there a charge for additional users?

We do not limit the number of City employees that can have access to our online reporting with a unique log on identification. There is no charge for additional users. All credit card numbers are truncated for each user within our reporting solution.

6 Service Group 3: Purchasing Card / Integrated Payables

(Only firms proposing for Service Group 3 should respond to this section.)

Purchasing Card

6.1 What card platform(s) does your program employ (e.g., MasterCard, Visa, American Express or other)? If more than one is used, which would you recommend for the City and why?

J.P. Morgan can offer our clients both Visa and Mastercard-branded commercial cards. This enables us to supply the City with a variety of features and tools for your commercial card program. If additional flexibility is needed, we can implement a card program for you using both platforms. Based on the City's objectives, we recommend the use of Mastercard for your commercial card program.

Mastercard leadership, data quality and expertise

Overall, Mastercard has an excellent team of resources available to the City for global data quality and advisory services, and a dedicated staff of commercial acceptance specialists. Mastercard has maintained a leadership position in commercial card services for the past decade. They introduced the first government purchasing card in 1986 and the first corporate purchasing card in 1993. Third parties such as RAM Research and The Nilson Report recognize Mastercard's growth and innovation, especially with regard to global advancements

Other Mastercard advantages include:

- **Data Capture**: Mastercard's data capture capabilities are excellent. In 1997, Mastercard launched an acquirer incentive program to pass enhanced data from key business-to-business suppliers. Today, Mastercard continues this trend through its industry-leading enhanced travel data and large-ticket interchange programs. In addition, Mastercard has devoted significant resources to improving the 1099 process through aggressive collection and validation of tax identification numbers (TINs). All Mastercard purchasing card transactions (from level I to level III) have been required to have a TIN passed at settlement.
- **Global Leadership**: Mastercard's Global Technology and Operations was named to InfoWorld's Top 100 Information Technology Innovators. Mastercard has a long-established Global Data Repository to support all Mastercard commercial card programs, which provides data insights and flexible delivery mechanisms for its customers worldwide. This tool processes more than 200 daily issuer data files from 40 countries in a variety of data formats, (including proprietary client-based formats) resulting in the most robust collection of global commercial data for the City.
- **Advisory Services**: Mastercard Advisors (MCA) provide commercial payment experts to support organizational efforts to reduce procurement costs, increase efficiency, encourage compliance and monitor real-dollar savings.
- **Reporting Innovations**: Mastercard continues to provide high-quality management information systems for corporate data reporting. Being first to market has made sure that Mastercard is on the front line of innovation and data reporting solutions. The company also continues to introduce new product lines and increase functionality in its existing products.

6.2 Provide an overview of the software/web-based card program management system that supports the Firm's purchasing card program.

PaymentNet is a fully hosted online solution that requires no client-side software and is accessible from virtually any secure Internet browser. Designed, developed and supported in house by J.P. Morgan, our easy-to-use system helps the City streamline time-consuming tasks and offers key features, including:

- **Simplified day-to-day account management:** From real-time profile changes and declined transaction viewing for program administrators to streamlined reporting options for cardholders, PaymentNet can help you handle everyday tasks more quickly and efficiently.
- **Mass update capabilities:** PaymentNet allows program administrators to send mass updates of approvals, accounting codes and cardholder applications, reducing the need for repetitive manual updates.
- **Flexible receipt imaging: T**he City is given access to PaymentNet's versatile receipt imaging options, including the ability to fax or upload scanned receipts.
- **Time-saving reporting options:** PaymentNet lets users create and save report queries, schedule reports to run automatically and view reports on screen for quick transaction reviews. PaymentNet includes a suite of standard reports and customizable reports to assist the City in monitoring, analyzing and reporting on your program spend.
- **Custom fields and transaction splitting:** The City can use PaymentNet's custom fields to meet their auditing needs, and the ability to easily split transactions simplifies the reconciliation process.
- **Online disputes**: Any cardholder or authorized user can submit a dispute in PaymentNet, which is not possible in many competitors' systems.

PAYMENTNET ADVANTAGES

- Complete, online solution wholly owned by J.P. Morgan
- Real time adjustments of account controls
- Multiple standard reports, query capabilities, plus customized reports by adding data elements from all reporting categories
- Full hierarchy support
- Seamless integration with your financial systems
- Simple user interface

PaymentNet's built-in hierarchy support gives program administrators and other authorized personnel access to a wide range of administrative options, and allows cardholders to benefit from convenient, self-service features. In addition, PaymentNet can be fully integrated with the City's existing ERP system during implementation, enabling your organization to leverage the full extent of your transaction data in support of your program goals. As an added benefit, J.P. Morgan will provide PaymentNet to the City at no charge.

To help you get the most out of PaymentNet, J.P. Morgan will provide comprehensive training for your program administrator, as well as a variety of training options and materials for cardholders and other users.

PaymentNet features

Our PaymentNet system allows the City to efficiently manage all aspects of your commercial card program, from policy adherence tracking and spend control to real-time adjustments of credit limits and other account parameters. Unlike other management software, PaymentNet provides a consolidated platform for all card-related needs, creating a uniform and consistent user experience.

PaymentNet home page

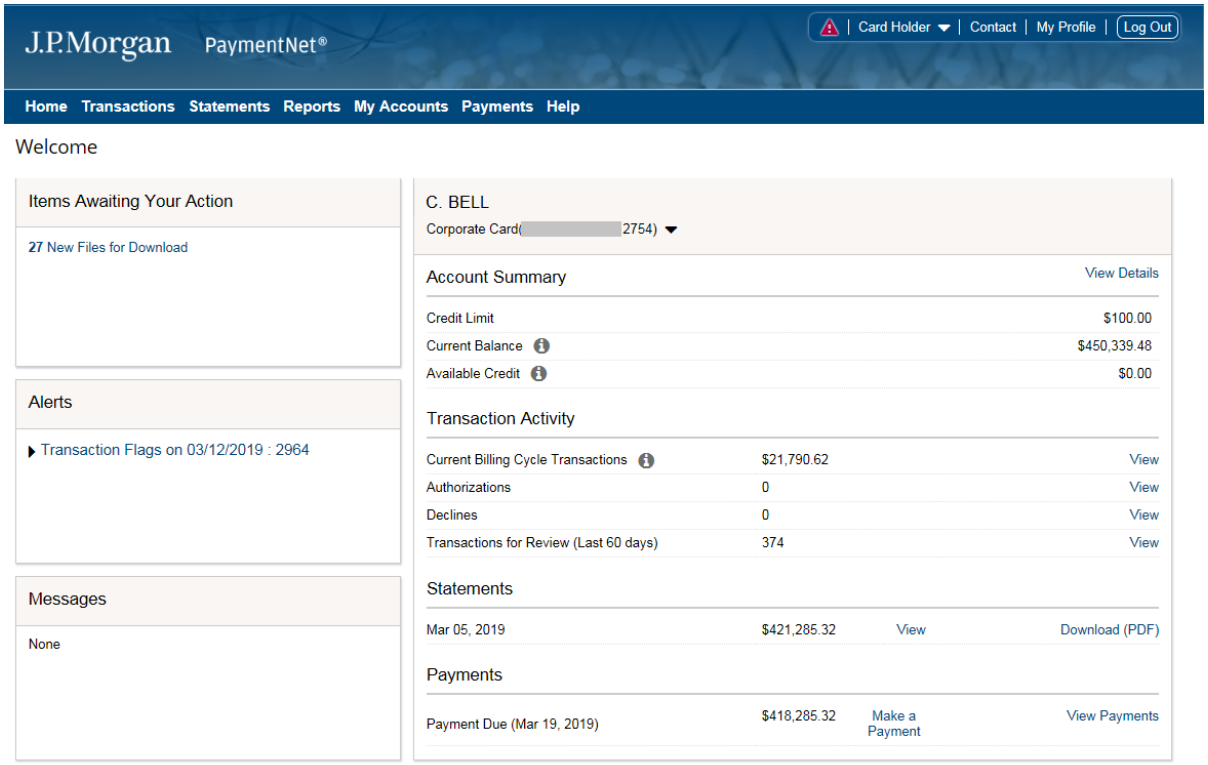


Figure 28.

PaymentNet's intuitive interface gives users quick, efficient access to all key account activities.

The following are the core features of PaymentNet:

- **Transaction management:** PaymentNet offers transaction viewing, powerful reallocation capabilities (including a flexible number of splits) and real-time updates. Simple checkboxes allow users to indicate reconciliation tasks for each transaction, and custom fields for transactions, accounts, employees, merchants and MCCs provide additional options.
- **Account management:** PaymentNet's account management function allows account changes, including credit limit adjustments, maintenance activities and deactivations, to be made online with immediate effect. Changes can be completed through a standard account import process in PaymentNet. Temporary credit limit changes and account suspensions can be applied to support upcoming events.
- **Employee management:** The City's program administrator can manage all user tasks including the setup of new users and passwords, creating new hierarchy levels, and linking users to accounts. Custom greetings can be configured to be displayed organization-wide or to specific departments and user roles. PaymentNet also supports decentralized administration, with the option for multiple program administrators throughout your hierarchy.
- **Spend analysis and reporting:** With a suite of standard reports that can be run at any time (or scheduled to run automatically), you can easily monitor transaction data for expense reporting, policy adherence, vendor negotiations and virtually all other situation analyses. Advanced query and sorting options allow for the tailoring of reports to users' specific needs.

- **Data integration:** PaymentNet can produce data files for download directly to the City's existing ERP system. You can specify different record types, order and sorting based on your system requirements, helping to ensure a seamless and accurate interface.
- **Electronic statements:** Cardholders can view statements online for a rolling 24-month period.
- **Electronic payment:** Cardholders and Program Administrators of Corporate Accounts can make direct debit payments, reducing paperwork and facilitating prompt payment**.**
- **Account Request Manager:** Program administrators can manage every step of the online card application and approval process within PaymentNet, minimizing manual tasks and increasing administrative speed, accuracy and transparency.

Your valuable data is protected through industry-proven Transport Layer Security (TLS) encryption technology. All sensitive data is masked, the login process is password protected and security access levels can be configured to help make sure that only authorized the City personnel have access to critical information.

The scalable architecture of PaymentNet is designed to accommodate as many logins as needed without sacrificing speed or consistency. Because PaymentNet is housed online and wholly owned by J.P. Morgan, updates and enhancements are taken care of behind the scenes, saving your organization the time and money associated with software maintenance.

In providing PaymentNet, J.P. Morgan's objective is to meet clients' unique organizational needs and program goals in the most efficient, comprehensive and user-friendly manner possible. We would be pleased to discuss PaymentNet's numerous features with the City in greater detail at any time.

6.3 Is the software/web-based card program management system wholly owned by your Firm? If not, specify the owner of the software/web based card program management system.

Yes, PaymentNet is wholly owned by J.P. Morgan.

6.4 Identify whether the software/web-based card program management system can integrate with the City's PeopleSoft ERP System.

Yes, J.P. Morgan has extensive experience in mapping commercial card data with PeopleSoft. Our flexible technical integration capabilities will allow the City to import your transaction information into your PeopleSoft ERP system daily, weekly, monthly or by billing cycle.

J.P. Morgan offers three file options to fit clients' data formatting needs: a standard transaction file, a flex mapper utility and an internal development tool called the Data Extract Utility (DEU). The standard transaction file and flex mapper allow clients to run files without additional assistance from J.P. Morgan, while our DEU is available for clients with more extensive or complex requirements. We have provided information on all file options below for the City's review.

File mapper in PaymentNet

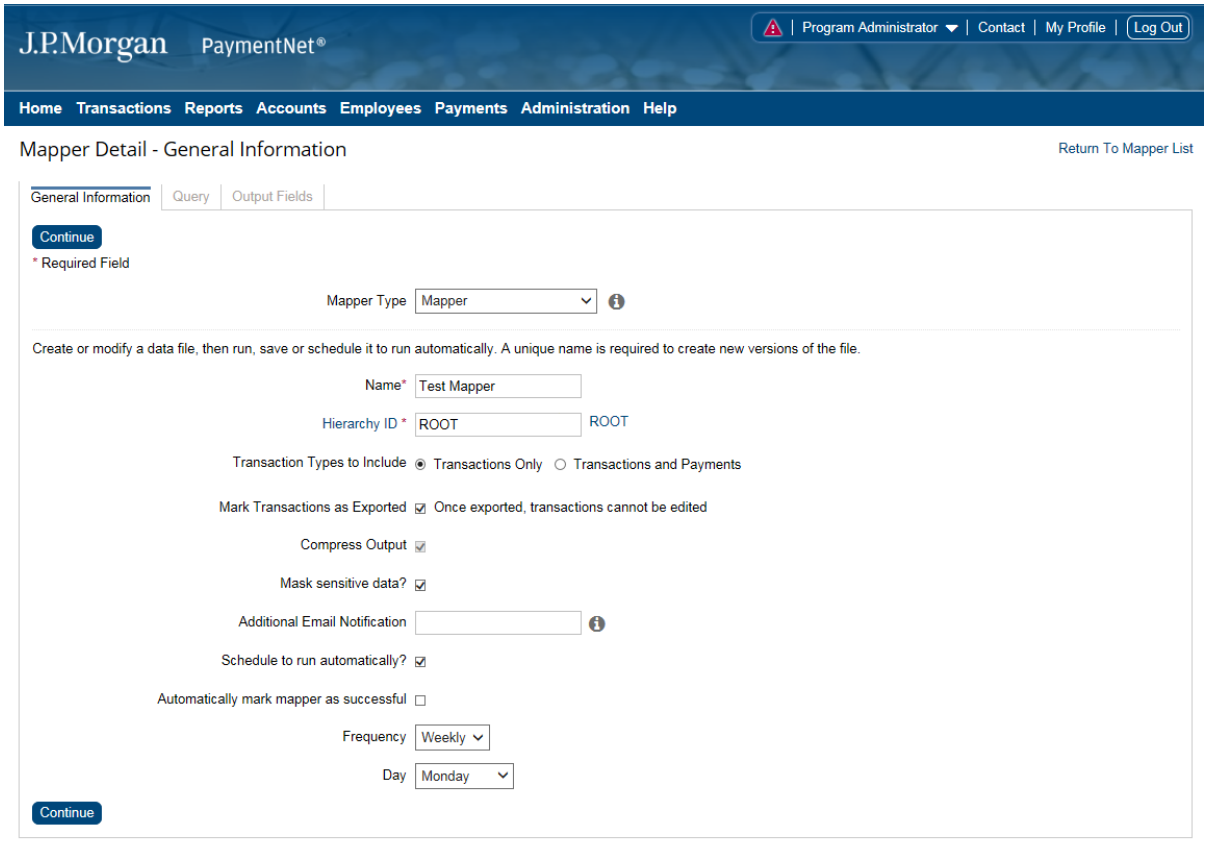


Figure 29.

We provide flexible data file options, allowing the City to import transaction data into your system.

6.5 Describe the card controls and usage restrictions supported by the Firm's program:

J.P. Morgan can accommodate multiple levels of control over your card program as described below.

6.5.1 Company level restrictions

6.5.2 Cardholder level restrictions

6.5.3 Department level restrictions

6.5.4 Merchant Category Code/Standard Industry Classification (MCC/SIC) restrictions

6.5.5 Cash advance restrictions

6.5.6 Dollar limits

J.P. Morgan programs offer numerous card controls and key administrative features such as full hierarchy support, real-time adjustments of spend controls online and denial at the point of sale for

transactions that do not meet your requirements. The City's program administrator can establish dollar, transaction, merchant category code (MCC) and cash advance limits at any level of your hierarchy: by individual, department, or for the entire organization.

Control options by hierarchy level

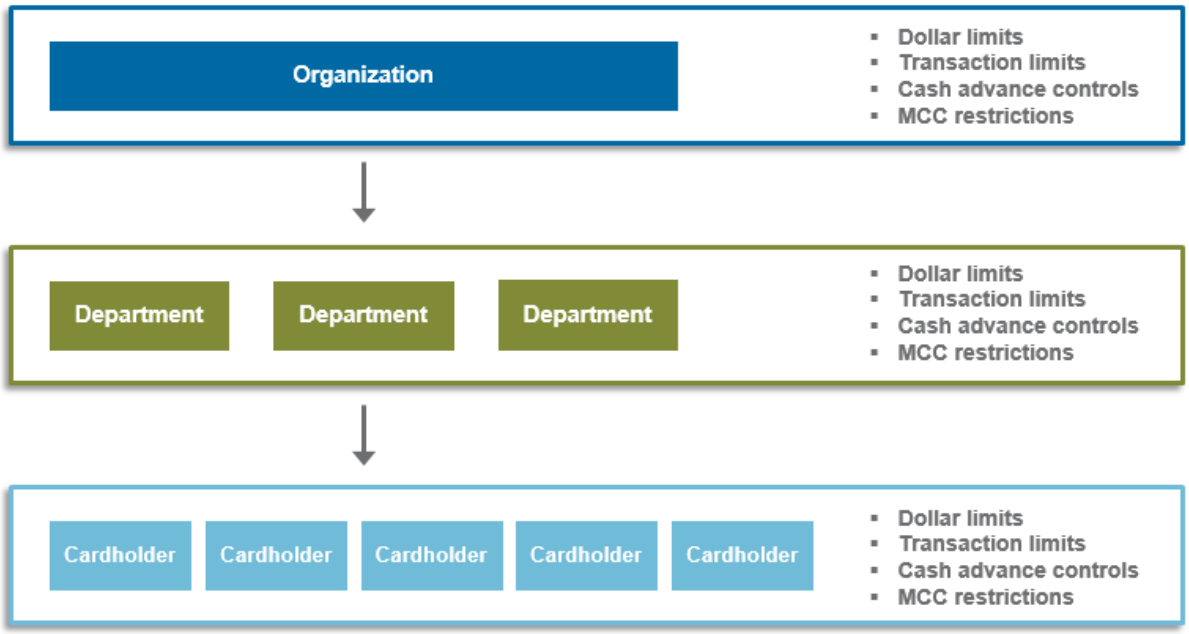


Figure 30.

PaymentNet provides a variety of controls for every level of your organizational hierarchy.

Standard controls available for our commercial cards include:

- Dollar limits: Dollar limit controls include cycle spend, transaction amount, daily spend amount, monthly spend, and spend limits by MCC.
- Transaction limits: Limits can be placed on the number of transactions allowed per day and per month.
- MCC restrictions: Limits can be applied to MCCs with a dollar amount, transaction value or the number of transactions allowed per day.
- Cash advance controls: The City can control monthly cash advance amounts or totally restrict the ability to use the cash advance options.
- Guidance Line: Suspends your ability to continue to use the card when the total balance reaches its limit.

6.6 Do you offer declining balance cards (i.e. an initial balance is set and does not automatically get reset)?

Yes, J.P. Morgan's Purchasing Cards can be set up with declining balance functionality that prevents monthly credit limits from refreshing when payments are received or a new cycle begins. For each card, the City can establish a credit limit and time period. When either the credit limit or expiration date is

reached, the card becomes unusable. This approach is often helpful in managing specialized expenditures such as grants, projects, meeting planning, and employee relocation.

Through PaymentNet, the City can easily view and report on your accounts, including standard purchasing cards and those with declining balance features.

6.7 Card Issuance

6.7.1 *Can the card design be customized to include the City's logo and other graphics?*

The standard card design for our Purchasing Card is dark blue with a silver left margin as shown here.

Plastic embossing

There are four lines available on the card for embossing. The first three lines are reserved for the account number, expiration date and cardholder name. The fourth line is for client use and offers up to 21 custom characters. This line can be used for an agency or department name, a tax ID number or a combination of both.

6.7.2 *After the initial implementation, identify the procedure for requesting additional cards and reporting lost or stolen cards.*

J.P. Morgan offers three options for initial and ongoing card issuance as defined below.

Online applications

Program administrators can request a new individual account online via PaymentNet. Once completed, the application is routed to a designated manager and/or program administrator for approval.

Account Request Manager

Building upon the card creation capabilities for program administrators within PaymentNet, J.P. Morgan offers the Account Request Manager (ARM) online application tool. This tool offers the ability to move the entire application, validation and approval process associated with commercial cards to a secure online platform.

Benefits of ARM include:

- **Paper to Electronic**: ARM is an entirely electronic card application and approval system, eliminating delays and costs associated with distributing, collecting, storing and managing paper applications.
  - Cardholder account information is entered once, reducing the possibility of introducing errors when re-keying data.
  - A hyperlink is sent to employees and responses are immediately stored. Data is validated before the application is submitted, preventing applicants from submitting bad or incomplete applications. Once the application is submitted, it is available for perusal by program administrators.

- **Approval Controls**: ARM integrates several workflow options for the application approval process and provides multiple levels of control, including an electronic signature option using a secure, validated PaymentNet approver role.
    - With the integrated approval process, there is no need to separately manage an approver list or track approvals outside the system.
    - The application process is managed entirely within the system for faster processing and easier tracking.
    - Approval requirements can be changed as needed, and all changes to applications, application templates, and approvers are recorded for full end-to-end traceability.

Note that Account Request Manager is available for use with Internet Explorer (version9 and higher) or Firefox (version 33 and higher). As an expansion, it is certified for the same browsers as PaymentNet.

Spreadsheet applications

J.P. Morgan can provide the City a spreadsheet application that can be submitted by your program administrator. This is the method for enrolling all the City's cardholders simultaneously. The completed spreadsheet should be encrypted and emailed to J.P. Morgan for processing.

Please note that this option can also be used for ongoing issuance, if the City opts to enroll multiple cardholders after initial rollout.

Paper applications

Paper applications can be submitted by your cardholders or program administrator via mail, email, or fax.

Lost or stolen cards

The City should notify us immediately if a card is lost or stolen. We will promptly cancel the account to prevent further program liability. Our Customer Service team is available 24/7/365 to cancel lost or stolen cards and reissue new plastic, as needed. Delivery of new cards is made within five to seven business days. If a rush card replacement is requested, a card can be delivered within one to two days.

6.7.3 What is the delivery method and turnaround time for new/replacement cards?

The final delivery time for new cards varies based on when we receive the application, the type of card being requested (standard or executive), and the type of delivery method selected by the City (rush or standard).

The process and timeline for standard card delivery is detailed below:

- Complete, accurate applications received before 10:00 a.m. PT will be processed within two business days.
- Standard card delivery occurs within five to eight business days after the application has been processed via U.S. Postal Service (USPS) first-class mail.

- Total delivery time, including application processing and delivery via USPS, is seven to ten business days.
- Cards can be sent either directly to the cardholder or to your program administrator depending on your preference.

6.7.4 Can the Firm send all newly issued cards (including replacement cards) directly to a single point of contact at the City?

Yes, cards can be sent either directly to the cardholder or to your program administrator depending on your preference.

6.7.5 What fee would apply, if any, for expedited (1-2 day) card delivery?

The fee per rush card is $25.

6.7.6 Can card profiles associated with an employee job title or position be made available to quickly set up new cardholders with a specific transaction/credit limit and specific MCC categories?

Existing card profiles can be used as templates to assist with mirroring information for newly added cardholders regarding limits and MCC categories.

6.8 Program Administrator

6.8.1 If a transaction is declined at the point-of-sale and the cardholder contacts the Program Administrator, can the Program Administrator adjust restrictions, cardholder limits, and controls on individual cards on a "real-time" basis? If not "real-time", identify the length of time required for changes to become effective.

If a card is declined at the point of sale, the cardholder can access information about the reason for the decline through PaymentNet or by contacting our Customer Service team. To complete the transaction, the cardholder should work with the City's program administrator to evaluate the decline reason and adjust any necessary account parameters.

Program administrators can make account changes using PaymentNet's account maintenance feature. With this feature, tasks such as credit limit adjustments, profile updates and termination activities can be accomplished online and in real time, with changes effective immediately. Available functions include:

- Name and address updates
- Current balance verification
- Transaction limit changes
- Monthly/cycle credit limit changes (temporary and permanent)
- MCC Group changes
- New card requests
- Card replacement requests
- Account closures
- Authorization/decline activity access

Cardholders can also use PaymentNet to view their account data, although they will not be able to make changes.

The Account Detail screen displays basic account information to your program administrator, such as credit limits, account status and hierarchy level.

PaymentNet's account maintenance

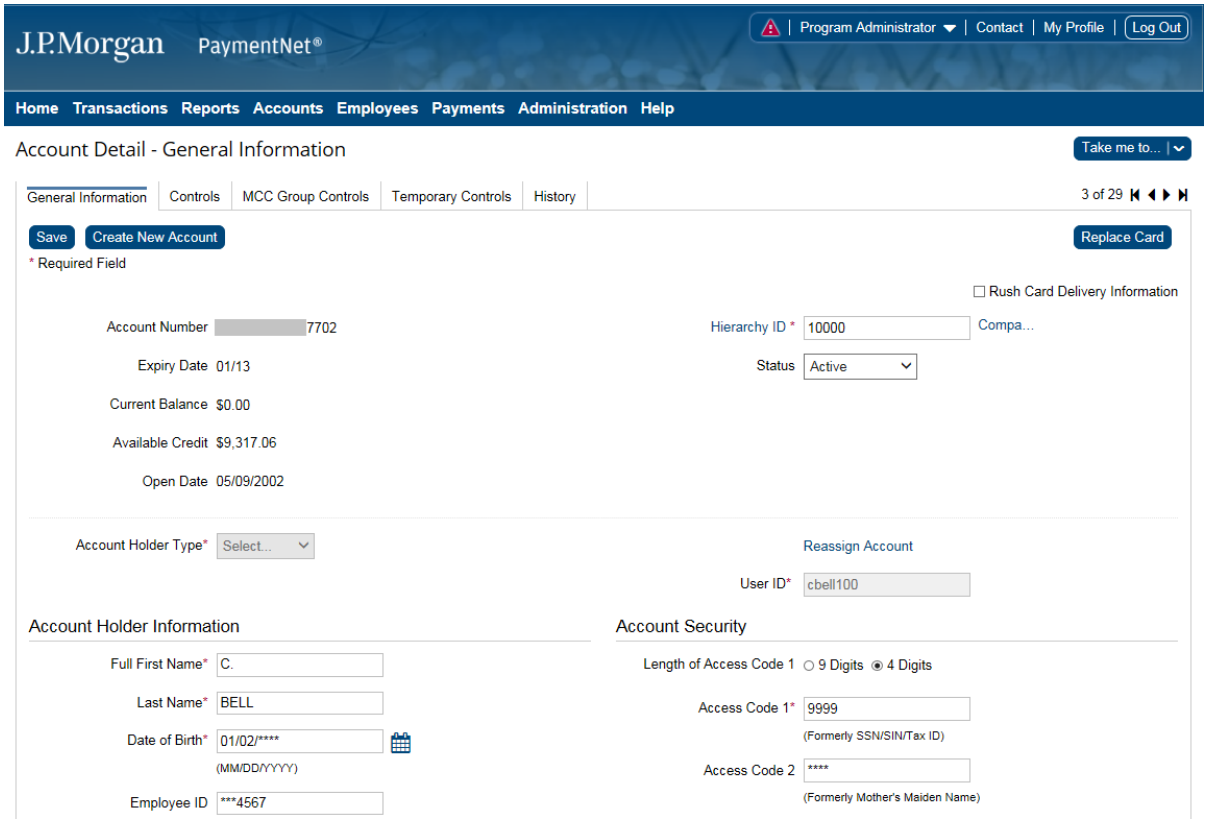


Figure 31.

Make real-time account updates online, using PaymentNet.

6.8.2 If the internet is unavailable, can Program Administrators make changes to cardholder limits/restrictions by phone?

Yes, program administrators can contact J.P. Morgan's program coordinator team for assistance with administrative tasks or for help with functions that cannot be completed online.

6.8.3 Can Program Administrators make temporary adjustments to a cardholder's profile that automatically reverts back to the original profile on a specified future date?

Yes, program administrators can set beginning and ending dates to make profile adjustments to credit, daily transaction limits and MCCG. Program administrators can set changes to revert to the original account settings after a predetermined amount of time.

6.8.4 Can a report be generated to show dormant accounts that have no activity for a period of time?

Yes, there are several reports that include last transaction date.

6.8.5 *Can a report be generated to summarize the amount spent by all cardholders for individual vendors?*

Yes, J.P. Morgan offers multiple reports including the Transaction Summary by Parent Merchant report which summarizes the number of transactions and total amount spent with each parent merchant.

6.8.6 *Can a Program Administrator send e-mail blasts to all cardholders through the Firm's system to remind individuals to complete and approve expense reports?*

Yes, email notifications of status changes can be enabled on a daily, weekly or monthly basis (or at cycle end) to inform approvers or cardholders when actions are required.

6.8.7 *Will the City Program Administrators have a dedicated customer service team to handle requests and service needs? What are the normal business hours of this team? Will it be 24/7/365? Where is the call center located?*

J.P. Morgan offers dedicated program administrator service provided by customer service specialists dedicated to Commercial Card. Our call centers, located in Elgin, IL and Columbus, OH, are staffed by experienced commercial card service specialists 24 hours a day, 7 days a week, 365 days a year. Our customer service specialists receive targeted training on the specific products they support to enable them to become experts in their roles.

6.9 Reporting

6.9.1 *Describe the online reporting provided to cardholders and administrators.*

Through PaymentNet, the City can access a suite of standard reports to help you easily monitor and manage expenditures throughout your organization. These reports have been developed based on best practices and actual client usage, making them effective, practical and convenient. All reports can be run on demand or users can schedule reports to run automatically. Users can elect to receive an email alert when a scheduled report is available. The City can download the report in PDF, Excel or comma-separated values (CSV) format.

In addition to allowing the City to see what your cardholders purchased and from whom, PaymentNet's suite of standard reports addresses the following:

- **Program administrators**: Manage employees and accounts, review and approve transactions, assess policy compliance and analyze spend composition
- **Cardholders**: Run reports at the end of each billing cycle, review transactions and print data for expense reports

The flexibility of our reporting tool will be a major benefit to the City. Some typical uses for PaymentNet reports include:

- **Vendor negotiations**: By running reports on specific merchants, the City can gather the information needed to negotiate with merchants for discounted rates or better terms (e.g., air travel spend with a specific airline). PaymentNet's *Merchant Profile* (available in Excel), *Merchant Ranking* and *Transaction Detail by Parent Merchant* reports are especially helpful in making these assessments.
- **Monitoring declines**: Identifying which transactions were declined at the point of sale can assist the City in tailoring program policies and identifying possible misuse of cards. The *Declines* and *Unusual Activity Analysis* reports, among others, can assist the City in this area.

- **Assessing credit limits**: By comparing cardholder credit limits to card usage, the City can accurately assess your employees commercial card needs. Helpful standard reports include *Accounts with Low Available Credit* and *Cardholder Profile.*
- **Deeper analysis**: PaymentNet's popular transaction detail reports include addendum data (e.g., airline details), enabling your organization to break down and analyze your program spend. The *Transaction Detail*, *Transactions Pending Review/Approval* and *Central Bill Reconciliation* reports are just a few of the many reports that can facilitate deeper spend analysis.

Additionally, PaymentNet allows the City to configure reports to meet your specific requirements. For example, a user can narrow the type of data, date range and hierarchy level of a standard report to show only the information you need for a particular analysis. The user can then save this instance of the report for future use. The system will also store completed reports for up to 35 days for employees who cannot access them right away.

This combination of features and flexibility makes PaymentNet a robust, user-friendly tool for meeting the City's reporting needs.

Please note: PaymentNet receives and displays all levels of transaction data passed by merchants, including line-item detail. The exact level of data captured at the point of sale is dependent on terminal setup. Through our collaboration with Visa and Mastercard, J.P. Morgan continually works with merchants to increase the level of data transmitted in transactions.

6.9.2 Can the City retrieve cardholder statements through the Firm's online portal?

Yes, cardholders can use PaymentNet's online statement functionality to view electronic versions of their statements. Statements are available for viewing within two business days after the billing cycle ends, which means there is no need to wait for hardcopy statements to make payments.

6.9.3 Provide a complete listing of standard reports that are generated from the system and whether they can be downloaded into an Excel format.

Please see the PaymentNet reports master list provided in Appendix 9. Reports are available in Excel.

6.9.4 How long does it take for transaction data to become available in the reporting portal?

The City's program administrator can view real-time transaction data through PaymentNet

6.9.5 Describe the electronic data available online that can be downloaded. In what format is information available?

PaymentNet displays all information provided by merchants at the point of sale, including level II and level III detail. Complete transaction data can be downloaded from PaymentNet to the City's PeopleSoft ERP system daily.

Data collection process flow

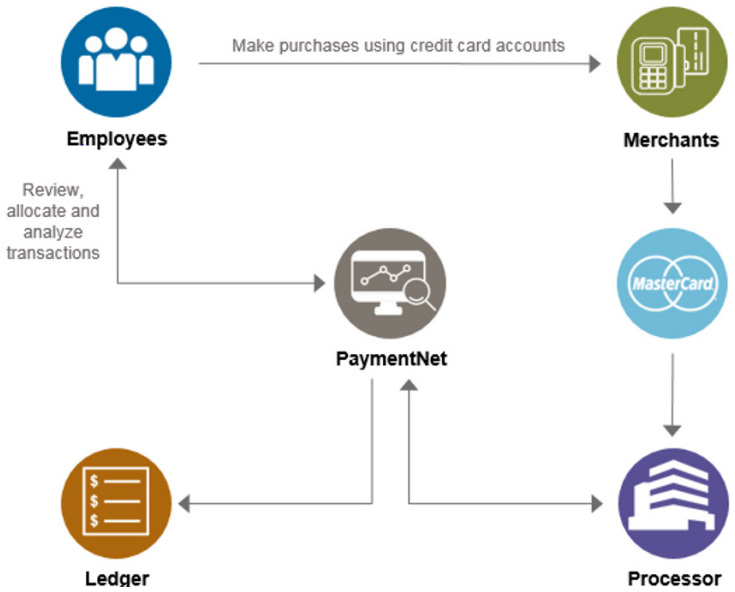


Figure 32.

All transaction data passed by merchants flows from the point of sale to PaymentNet.

J.P. Morgan offers several file feeds customized for accounting software packages, as well as a range of data transfer options, including SFTP, VAN for EDI files, XML and HTTP over TLS.

After downloading your transaction data, the City can have it sent directly to PeopleSoft or to your PaymentNet user interface, where it will remain until a user manually downloads it to your system (files within the user interface are available for 365 days and can be deleted as necessary). The City will select your file transmission method during implementation.

6.9.6 Are workflow reports available to show an audit trail of specific activity, such as card review/approvals (name, date, activity) and temporary credit limit approvals?

PaymentNet has a full range of on-screen audit trails, as well as standard reporting, to audit changes made to entities (e.g. account, employee, payable, etc.) to provide transparency and accountability.

6.9.7 Describe the data that is captured by the online reporting system. Does the reporting system capture Level 3 data?

PaymentNet receives and displays all levels of transaction data passed by merchants, including line-item detail. This provides the most accurate information available to the City. The benefits of exploring all transaction data elements include:

- Increased spend visibility and compliance
- Reduced expense processing costs and time
- Better management of travel budget restrictions

The exact level of data captured at the point of sale is dependent on terminal setup. Through our collaboration with Mastercard, we continually work with merchants to increase the level of data transmitted in transactions. Currently:

- **Level 2 - 4.6 million locations in the U.S. and Canada are level II capable**: Transaction detail includes transaction date, post date, total purchase amount, supplier name, supplier city/state, supplier MCC, a unique transaction reference number, card acceptor tax ID, total sales tax and/or VAT amount and optional purchaser accounting code (up to 17 digits).
- **Level 3 - Approximately 1.4 million merchants in the U.S. and Canada are level III capable**: These merchants provide true line-item detail for every transaction, including all level II data plus product code, item description, unit cost, item quantity, item unit of measure, merchant order number, discount amount, freight, shipping amount, ship-from zip code, ship-to zip code, order date and a commodity description code.

6.10 Expense Reporting Module

6.10.1 Do you offer an expense reporting module that allows users to identify and code charges?

Yes, PaymentNet's custom accounting code system can imitate your existing system, allowing the City to define your accounting code segments. The segments can also accommodate multiple codes within each segment. Once your codes are set up in the system, PaymentNet will automatically attach default accounting codes to each transaction based on transaction defaulting rules for employee, hierarchy, merchant, MCC, account or customer code. Each accounting code can have a flexible number of alphanumeric characters, giving you the flexibility needed to accurately and easily allocate transactions.

Default accounting codes

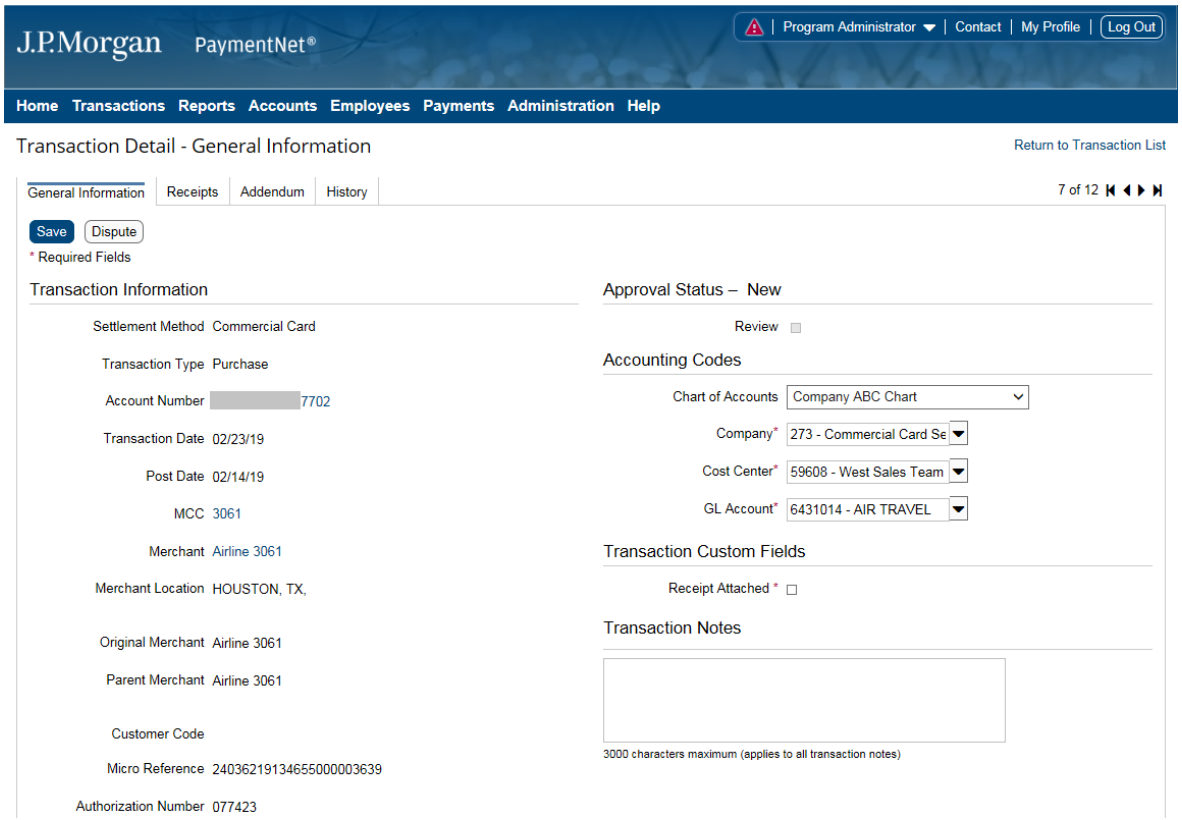


Figure 33.

Default accounting codes are automatically attached to transactions in PaymentNet.

6.10.2 *Can this expense reporting module be customized to reference the City's general ledger account numbers?*

Yes, during implementation, the City's chart of accounts will be created, validated and loaded into PaymentNet. Your chart of accounts can contain your general ledger accounts, cost centers and any other required fields. The City's program administrator and/or cardholders will then be able to select the appropriate account code value from a drop-down menu (only validated numbers will appear) for reconciliation. Program administrators and cardholders will also be able to type a value directly into a text box (again, the system will validate the user has entered a valid value).

To simplify the process even further, the City can limit the number of codes available to each user and include descriptions along with the codes. Within two business days of the transaction (to allow time for merchant posting, and batch data load processes), users will be able to access the transaction and edit department or cost-center code assignments before downloading data into your general ledger.

In addition, J.P. Morgan uses alphanumeric character fields, which means that we can incorporate any accounting code structure and thereby accommodate your existing accounting string.

Accounting code structure

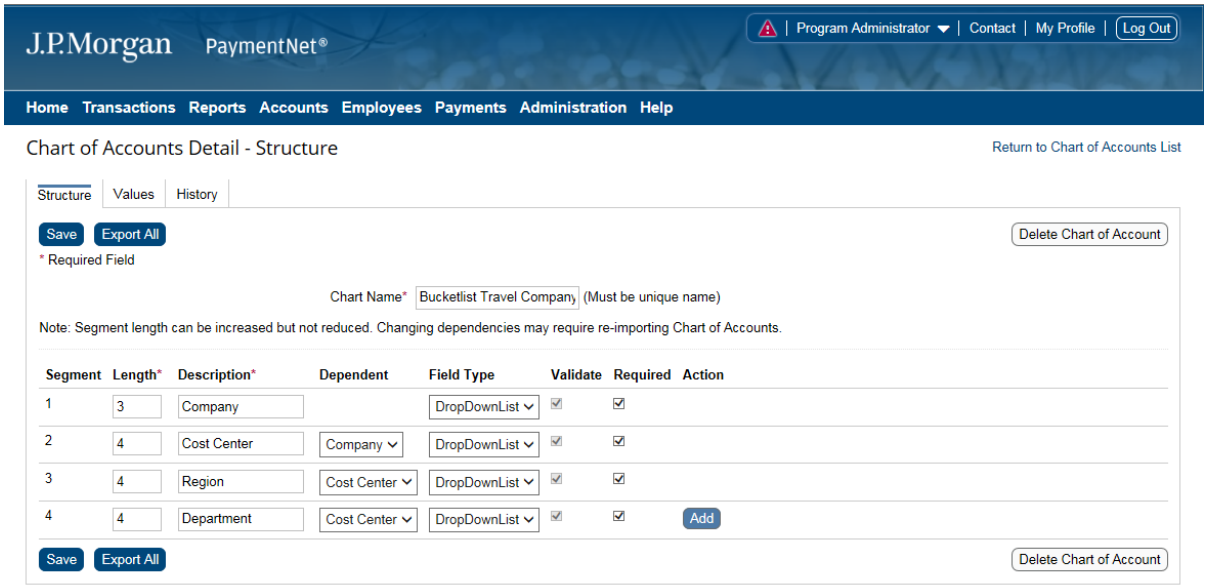


Figure 34.

Each chart of accounts structure can accommodate up to 1,500 characters.

6.10.3 *In the expense reporting module, how many fields are available to customize for cardholder input of data? What customization options are available (i.e. numeric only fields, fixed field lengths, drop-down options)?*

As stated above, PaymentNet offers editable fields that can be modified for each user access role in key categories across your organization, including account, employee, merchant, MCC, transaction and payable. The City's program administrator can give each custom field a unique name, provide a description of the information to be supplied, and specify whether the field will be a checkbox, a text box of up to 99 characters, or a drop-down list with a defined range of values for each user to choose from.

6.10.4 For free-form fields, how many characters are available to describe the business purpose for a particular expense?

Custom text box fields can contain up to 99 characters.

6.10.5 Can transactions be split and coded to multiple general ledger accounts?

Yes, with PaymentNet, the City will be able to manage reconciliation by assigning default accounting codes and then reallocating or splitting transactions. When reconciliation is complete, users can simply mark transactions as reviewed and submit them for approval based on rules you establish.

Reallocating transactions

Within two business days of merchant posting, PaymentNet users can access transactions, edit chart of account segments and custom transaction field(s) attributes before downloading data into the City's general ledger. As users review the information, each transaction will be shown with pre-populated accounting codes. Users then manually allocate accounting codes by free-form input or by selecting the appropriate code from a drop-down menu. The accounting codes displayed within the menus will be appropriate for each user based on the user's position in your hierarchy. This capability will benefit the City by enabling managers, auditing teams and program administrators to effectively monitor which transactions have been edited, viewed and approved.

Splitting transactions

Users can split transactions up to 99 times among accounting codes. A *Transaction Allocation* report is available in PaymentNet to track how each transaction is being split among cost centers. This will allow your program administrator and managers to confirm that charges are not being reassigned to incorrect accounting codes.

6.10.6 How does the Firm's expense reporting module split sales tax on transactions that are split in the expense reporting system? Does the City have control over how sales tax is split amongst transactions or is it based on a fixed formula?

Through PaymentNet, the City has control over sales tax allocation. You can choose to allocate based on a percentage or a fixed amount.

6.10.7 Does the Firm offer the ability to identify purchases made for goods outside of the state of California that are not assessed sales tax?

PaymentNet provides multiple reports that list sales tax information, if provided by the merchant. These reports can be used to help the City meet reconciliation and compliance needs, as well as determine if a purchase made outside the state of California was not assessed sales tax. The available reports include:

- **Statement of Account**: This report lists your previous cycle's transaction data, including the account name and number, address, transaction ID, transaction and postdates, merchant information, MCC, transaction amount, accounting code allocations (when available), custom fields, transaction notes, sales tax and transaction addenda. Signature lines at the bottom of the report assist cardholders and managers with review and reconciliation.

- **Transaction Detail**: This report can be used to monitor account purchases (payments are excluded). It lists the account name and number, transaction and postdates, transaction ID, merchant information, MCC, debit and credit amounts, sales tax and transaction type. Subtotals are provided for each account and the central bill account, along with grand totals for the entire report. This report is also available in a version optimized for Excel.
- **Transaction Detail by Hierarchy**: This report summarizes the number of transactions and total amount spent for each account and hierarchy level (payments are excluded). It lists hierarchy detail, account name and number, transaction and postdates, transaction ID, merchant information, MCC, debit and credit amounts, sales tax and transaction type. Subtotals are provided for each hierarchy and account number, along with grand totals for the entire report.
- **Transaction Allocation**: This comprehensive report displays all transactions (payments are excluded) with account name and number, transaction and postdates, transaction ID, merchant information, MCC, transaction amount, transaction type, sales tax, transaction notes, custom fields and an unlimited number of accounting codes.
- **Transaction Detail with Level III Data**: This report can be used to closely monitor purchases by account. Transactions and line items are included, but payments are excluded. The rich data available in this report includes hundreds of fields, including the account number, cardholder name, transaction and postdates, debit/credit amount, sales tax amount (and VAT, if applicable), full merchant name and address, MCC and description, customer code, business to business (B2B) cost center number, B2B net amount, B2B payment method code, B2B settlement days count, product code, unit of measure, merchant reference number, duty and freight amounts and purchase timestamp. Subtotals are provided for each cardholder and the central bill account, along with a grand total for the report. Due to the large amount of data provided, the report is optimized for Excel. We also offer specialized versions of this report that focus on airline data, car rental data, lodging data and purchasing data.
- **Transaction Detail with Page Breaks**: This report shows all purchases for each account (payments are excluded). Because each account's activity is detailed on a separate page, the report can be printed and given to cardholders that do not have access to PaymentNet, allowing them to review their transactions. The report lists the account name and number, transaction and postdates, transaction ID, merchant information, MCC, debit and credit amounts, sales tax and transaction type.

6.10.8 Do you offer the ability for the cardholder to save a "favorite" general ledger code to identify commonly used codes?

Yes, PaymentNet's custom accounting code system can imitate your existing system, allowing the City to define your accounting code segments. Once your codes are set up in the system, PaymentNet will automatically attach default accounting codes to each transaction based on transaction defaulting rules for employee, hierarchy, merchant, MCC, account or customer code. Each accounting code can have a flexible number of alphanumeric characters, giving you the flexibility needed to accurately and easily allocate transactions.

6.10.9 Does your expense reporting module offer the ability to attach receipts? Are receipts associated with individual transactions or with a monthly statement?

Yes, our receipt imaging feature enables users to scan and upload or fax receipts into PaymentNet and associate them with transactions for easy reference and retention. Receipts can be associated with reference data such as a description, the receipt date and the amount.

Within two hours of uploading a receipt, the information can be viewed and downloaded via a link next to the transaction. Multiple receipt images can be downloaded in one action. Clients will also have the option to receive a file transmission daily containing all receipt images that were uploaded the previous day.

Adding receipts to transactions

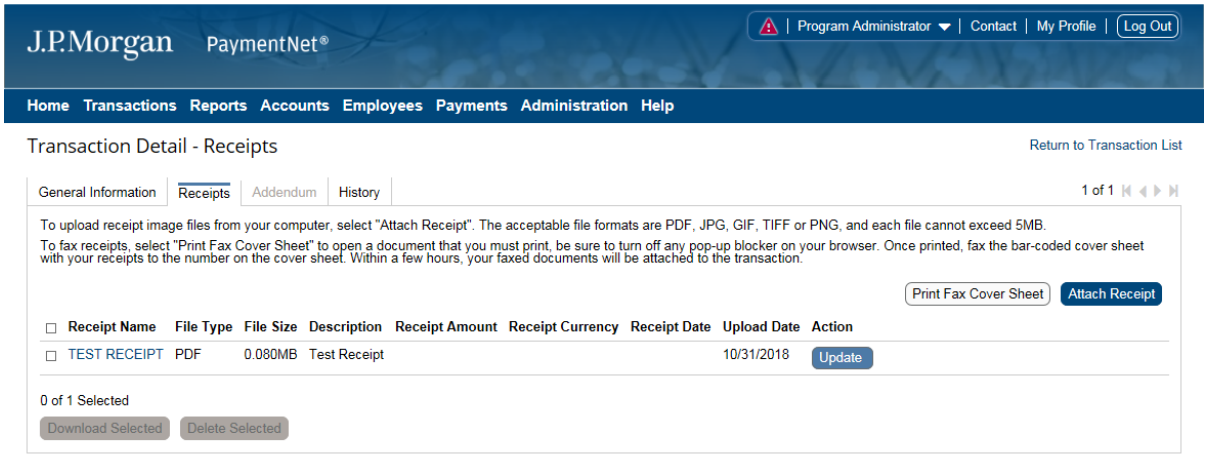


Figure 35.

Users can easily append receipts to transactions for more efficient oversight, increased control and policy compliance, and reduced costs.

Receipts must be uploaded and attached to a transaction one at a time, using the 'Attach Receipt' button. There is no limit to the total number of files that can be attached to a transaction. Please note that scanned receipts can be up to 5 megabytes (MB).

6.10.10 Can a cardholder print an expense report or a combination of transactions accompanied with the receipt images? Provide a sample of this report.

Yes, PaymentNet offers a *Receipt Imaging Volume* report that summarizes the total number of receipt image files attached to transactions within an organization. Reports include the number of scanned/uploaded image files, the number of faxed image files and the total number of image files. Criteria that can be filtered include account number, post date, transaction date and transaction amount.

Details regarding this report have been provided in Appendix 9.

6.10.11 What options are available to upload receipts?

Cardholders using PaymentNet have two ways to attach receipts to their transactions:

- Upload scanned receipts. When this option is enabled, cardholders can upload their receipts in JPG, GIF, or PDF format. Individual files cannot exceed 10MB. There is no limit to the total number of files attached to a transaction, but only five files can be uploaded at one time.
- Fax receipt images. When this option is enabled, cardholders can fax their receipts to the number indicated on the fax cover sheet that is generated automatically. The cover sheet shows the transaction details and cardholder information.

PaymentNet Mobile

Cardholders using the PaymentNet Mobile Website have two ways to attach receipts to their transactions:

- Capture an image using the camera on their phone.
- Upload an image previously saved to their phone.

To attach receipt images using PaymentNet Mobile:

- Tap an item in the Posted list to display transaction details.
- Tap the Attach Receipt icon.

6.10.12 Does your Firm offer a mobile application that can directly associate a receipt image with a specific transaction?

Yes. Cardholders using PaymentNet Mobile can also attach receipts, either by using the camera on their phone to take a photo of a receipt or by using a photo they have saved to their photo library. These features allow clients to manage receipts electronically and provide a quick reference point for transaction approvers and auditors.

6.10.13 How long are receipt images accessible by the City directly from the online reporting system? Is extended receipt image accessible by contacting customer service?

Receipt images are available for a rolling 36-month period in our PaymentNet reporting system.

6.10.14 Can receipt images be transmitted in bulk to the City? How would the images be indexed during transmission?

Yes. Using the Receipt Imaging capabilities provided in PaymentNet, cardholders can attach receipts to their transactions and program administrators can receive a daily bulk export file of the uploaded receipt images.

If the Receipt Imaging functionality is enabled at the organization level, cardholders can attach receipts to their transactions in PaymentNet by either uploading scanned receipts or faxing them (or both, depending on which options are selected). Cardholders using PaymentNet Mobile can also attach receipts, either by using the camera on their phone to take a photo of a receipt or by using a photo they have saved to their photo library. These features allow clients to manage receipts electronically and provide a quick reference point for transaction approvers and auditors.

The Receipt Imaging Bulk Export feature gives clients the option to receive daily transmission of an export file containing all the receipt images that cardholders uploaded the previous day. This feature allows clients to export receipt images in bulk from PaymentNet on a regular basis. It also eliminates the need for cardholders to download their own receipt images individually and send them to their program administrator.

Reference data for indexing

The reference data associated with transaction receipts can be added to template-based reports and flex mappers. For a template-based report, the following fields are available in the Transactions module's Select Columns screen and can be included in the sorting and grouping criteria for the report:

- Receipt amount
- Receipt currency
- Receipt date
- Receipt description
- Receipt file type
- Receipt name
- Receipt upload date

6.10.15 Can employees request reimbursement for out-of-pocket expenses from your expense report offering? How will the City obtain the information on how much these employees should be repaid? Can non-cardholders use the Firm's out-of-pocket expense module?

Yes, in addition to card-based transactions, the City will also have the ability to manage cash transactions online via PaymentNet. Benefits of managing cash transactions online via PaymentNet include the following:

- Distinct Settlement Method and Transaction Type fields allow the City to efficiently segregate cash and out-of-pocket transactions in reports, queries and mappers.
- Cardholders can select from any of their card accounts using a simple dropdown.
- Individual users can enter the transaction date manually or by using an active calendar icon.
- The date the transactions are entered is referred to as the Post Date.
- The Description field allows up to 25 characters.
- The Merchant field automatically defaults to “Out of Pocket – Personal Card/Cash”.
- Currency defaults based on account settlement currency.

Out-of-pocket cash transactions through PaymentNet

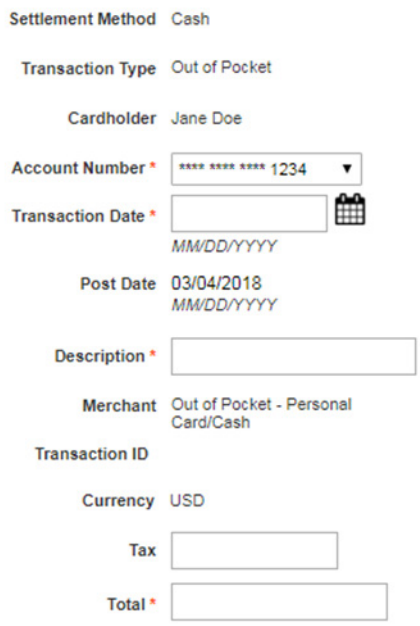


Figure 36.

Once authorized users input out-of-pocket expenses, PaymentNet can be scheduled to transmit the information to the City's internal ERP/financial system.

6.10.16 Are transactions that have been coded with the accompanying documentation sent to a manager for approval by:

	Yes / No
Transaction Level	See Note
Expense Report Created by Cardholder	See Note
Statement Level	See Note

Note: Approvals and rejections are made on a transaction-by-transaction basis, as opposed to a true expense report, and can be made according to individual cardholder transactions or en masse across multiple cardholders.

6.10.17 If the City requires a weekly transmission of all purchasing card transactions, what options are available to transmit transaction data that have not been allocated to a general ledger account and/or approved?

J.P. Morgan has extensive experience in mapping commercial card data. Our flexible technical integration capabilities will allow the City to import your transaction information into your ERP system daily, weekly, monthly or by billing cycle.

J.P. Morgan offers three file options to fit clients' data formatting needs: a standard transaction file, a flex mapper utility and an internal development tool called the Data Extract Utility (DEU). The standard transaction file and flex mapper allow clients to run files without additional assistance from J.P. Morgan, while our DEU is available for clients with more extensive or complex requirements. We have provided information on all file options below for the City's review.

6.10.18 How quickly do expense reports need to be submitted? Can the City establish its own policies on submission of expense reports, or is it a bank-mandated deadline? What happens if an expense report is not completed by the deadline?

The City will establish your own policies for the timing of expense report submissions. J.P. Morgan is proposing our PSC consortium with payment terms to support your program.

6.10.19 Provide an interactive demonstration of your online capabilities. Access to the demo can be by CD-ROM or online.

J.P. Morgan offers a weekly PaymentNet sales demonstration:

- When: Tuesdays at 9:00 a.m. PT
- WebEx Link: https://jpmchase.webex.com/jpmchase/j.php?MTID=m9fb67677f9934d8053e7c9118e8ab97e
- WebEx Meeting Number: 733 970 369

6.11 Reconciler/Approver

6.11.1 Once expenses are coded and submitted to an approver, describe the expense approval process.

The following features are available to support your workflow:

- Checkboxes for "reviewed" and "approved."

- Access roles assigned to cardholders and non-cardholders. This allows them to review or approve transactions, modify accounting code allocations or access other functions as needed.
- Up to eight authorization levels to promote accountability at various stages.
- Email notifications when transactions are awaiting review or approval.
- Email messages sent to users designated as “cc” and “bcc” on employee profiles (allows designated users to be copied on relevant information).
- Option to require that users receive emails. This removes the ability for those users to disable them.
- Transaction reviewer’s name displayed on the Transaction Detail screen next to the “Reviewed” checkbox (helpful for organizations where an authorized proxy user may complete a transaction review on behalf of the cardholder).
- Delayed transaction locking for all roles until a transaction is marked as “Exported.” Users can edit accounting codes after a transaction is approved until the transaction is exported.

6.11.2 Are transactions sent for approval to a specific individual, or can transactions be sent to multiple approvers? If the immediate approver fails to approve an expense report, what options are available for the report to be approved?

PaymentNet allows for customization of information flow according to your organizational hierarchy or accounting structure. The City can choose from multiple configuration options to employ the process that best adheres to your organization’s accounting rules.

Your implementation project manager will work with you to establish approval checkboxes, access roles and other elements to support the workflow that fits your needs.

6.11.3 Does the expense reporting module send reminders to encourage the timely submission of expense reports? Are there management reports identifying individuals that have not submitted expense reports? Are there additional procedures that could be implemented to discourage incomplete expense reports?

Yes, PaymentNet offers email reminders when transactions are waiting for approval.

6.11.4 If an approver rejects or returns an individual transaction to the cardholder, is the reject or return on an individual transaction or on the entire report?

PaymentNet features approval functionality based on the City’s policies and hierarchy, allowing a designated approver (or specific approvers) to approve or reject expenses. Approvals and rejections are made on a transaction-by-transaction basis, as opposed to a true expense report, and can be made according to individual cardholder transactions or en masse across multiple cardholders. When transactions are rejected, they are sent back to the appropriate cardholder to make the necessary adjustment.

6.11.5 Does the approver have the ability to modify general ledger coding information prior to the approval of the transaction/expense report, or does it need to be sent back to the cardholder for the change to be made?

Specific approval requirements will be determined by the City at the time if your implementation.

6.11.6 Does the approver have to approve out-of-pocket expenses separately than purchase card charges, or can they both be approved at the same time?

Approvals are made on a transaction-by-transaction basis.

6.11.7 Does your expense reporting platform have a "reconciler" role, an individual other than the cardholder or approver? Can the reconciler be allowed to add or change accounting general ledger information, attach receipts, etc.?

Yes, clients generally designate a single individual to handle payment processing for their organizations. This helps to maintain tight control over accounts payable activities. Through the user access roles offered by our systems, the City can specify which of your employees are authorized to initiate, alter, cancel and report on your single-use account payments. During the implementation process, your designated implementation project manager will work with you to establish user access roles and privileges that meet your organization's requirements and procedures.

6.11.8 Can Program Administrators insert comments into the portal that can be retrieved for audit purposes?

Yes, our system can add custom fields passed with payment requests to transaction data. Clients most often add a payment reference number, allowing them to use the unique reference number to automatically reconcile the transaction back to their general ledgers.

The City can edit existing transaction notes as well as add new notes from the Transaction Detail screen.

6.12 What are the liabilities of the City and employees in the event of fraud, abuse, or loss of a card that is committed by a non-employee and not for the benefit of the City? If the City is not liable but a loss is incurred, would it impact the rebate, if any, paid to the City?

J.P. Morgan offers both corporate and joint and several liability options:

- **Corporate liability**: The City is liable for all charges made to cardholders' accounts and maintains sole responsibility for payment.
- **Joint and several liability**: Cardholders and the City share joint liability. Cardholders are responsible for payment, but the City is ultimately liable for all outstanding balances.

For a Commercial Card program with only purchase or account payable spend, liability must be set to corporate.

In general, liability includes the amount of all transactions made using authorized cards. However, the City can effectively minimize liability from employee misuse or abuse of funds by setting appropriate card limits.

Mitigating liability

The City program includes protections against fraud and employee misuse. The J.P. Morgan fraud waiver covers third-party fraud. The Mastercard liability waiver covers employee misuse.

Fraud

J.P. Morgan provides fraud protection coverage for:

- Lost/stolen cards
- Counterfeit cards
- Skimmed cards

- Unauthorized Internet transactions
- Merchant disputes

The City should contact J.P. Morgan immediately when a card is suspected of being lost, stolen or otherwise compromised. Once notified, J.P. Morgan will promptly cancel the account. Subject to the terms and conditions outlined in our attached financial offering (included in the Cost Proposal), the City will not be liable for fraudulent transactions made on that account. Merchants that do not follow transaction authorization procedures can be subject to chargebacks. If there are fraud losses, they are typically netted out of the program rebate opportunity.

Employee misuse

To protect you from employee misuse of your commercial cards, J.P. Morgan offers a liability waiver program through Mastercard that will reimburse the City for inappropriate expenditures made on a card.

As a condition of the Mastercard liability waiver program, the cardholder's employment must be terminated. Eligible charges are those incurred by the cardholder 75 days prior to termination and up to 14 days after termination. We must be notified immediately to deliver the vital safeguards that enable you to provide Purchasing cards to employees with security and confidence.

Mastercard liability waiver

We work with Mastercard to waive certain eligible charges and minimize losses due to employee misuse of commercial card privileges. MasterCoverage is a complimentary service that covers up to a maximum limit of $100,000 per cardholder and cash advances of $300 per day, up to a maximum of $1,000 per claim. Other coverage includes:

- Card charges that were reimbursed to the employee but not remitted by the employee to the financial institution
- Card charges that did not directly or indirectly benefit the City
- Card charges that were reimbursed to the financial institution by the City on behalf of the cardholder, but were later discovered not to have directly or indirectly benefited you

6.13 For suspected fraud activity, do you offer the ability to send mobile text alerts directly to the cardholder? If yes, can the cardholder simply respond by texting a reply back?

Yes, the City's cardholders can enroll to receive notifications via text message, email or phone when suspicious transactions are identified. Cardholders can quickly reply to the message to validate transactions.

6.14 Discuss any benefits for cardholders (i.e. loss damage waiver and liability insurance on rental cars, accident insurance, emergency card replacement, etc.).

At no cost to the City, J.P. Morgan provides your cardholders with one of the most comprehensive insurance and service offerings in the commercial card industry. Automatic coverage for cardholders using the J.P. Morgan Purchasing Card includes:

- Legal referral assistance
- Medical referral assistance

- Emergency message service
- Prescription and document delivery assistance

When a cardholder uses a purchasing card for travel purposes, the following benefits also apply:

- Primary auto rental insurance
- Emergency transportation assistance
- Roadside assistance
- VAT reclaim service

6.15 Settlement

6.15.1 What billing cycles are available?

J.P. Morgan offers a wide range of billing cycle closing dates, allowing the City to select the date that is most appropriate for your calendar. This date can vary for each subsidiary that has its own accounting system. Billing runs on a 30-day cycle with payment due 14 days after the end of the cycle for Purchasing cards. There are several flexible payment options, with shorter payment cycles tied to reduced credit exposure and improved rebates.

6.15.2 How will the City receive billing statements?

Cardholders can use PaymentNet's online statement functionality to view electronic versions of their statements. Statements are available for viewing within two business days after the billing cycle ends, which means there is no need to wait for hardcopy statements to make payments. The City has the opportunity to earn higher rebates associated with faster payment by receiving billing statements earlier.

6.15.3 What are the payment terms from "statement date"?

Standard Purchasing card payment is due 14 days from the statement date. Early payment may result in a higher rebate. Please refer to the Cost Proposal for the payment options that are available to the City.

6.16 Rebate Schedule

6.16.1 Provide a rebate schedule for card activity at various usage levels up to $100 million.

Please refer to the Cost Proposal for rebate information.

6.16.2 Is the Firm offering the City the opportunity to participate in a consortium program? If so, please clearly indicate the aggregate spend for the consortium for the most recent annual period.

Yes, J.P. Morgan is proposing out PSC Consortium anchored by the City of Fort Worth. Total aggregate spend is $650MM+.

6.16.3 Describe any other factors, such as average transaction size, etc., that affect the rebate amount.

J.P. Morgan has proposed our PSC Consortium for the City's card program:

- Consortium rebate is based on the $600MM tier and individual participant program size

- Rebate will vary based on spend volume and if the spend is classified as non-large ticket or large ticket as defined by the Association
- At the $600MM consortium tier, the maximum, potential rebate earned on 30/14 terms is 1.77% for non-large ticket and 0.70% for large ticket

6.16.4 Describe how speed of payment is calculated.

Please refer to the Cost Proposal for file turn details.

Programs with Settlement Terms of 30 & 14 will have an Average File Return of 29 if Participant spends ratably. Rebate Rate and Large Ticket Rate will each be increased by 0.0050%for each whole number less than 29. If the Average File Turn for such Program(s) is greater than 29, the Volume Rebate Rate and Large Ticket Rate will each be decreased by 0.0050% for each whole number greater than 29 but less than 46.

6.16.5 Identify any exceptions to the rebate schedule (i.e. large dollar items, etc.). If there are exceptions, specifically define what constitutes a "large dollar" item.

Please refer to the Cost Proposal for rebate information.

6.16.6 Address additional proposed incentives, including any signing bonuses.

There are no signing bonuses with the PSC consortium.

6.17 Purchasing Card Fees

6.17.1 Is there a cost to send monthly paper statements to individual cardholders?

No, J.P. Morgan does not charge for paper statements.

6.17.2 Are there any costs to the City for the expense reporting module?

No, PaymentNet is offered at no cost to the City.

Integrated Payables

6.18 Describe the Firm's capabilities and experience with a comprehensive electronic/integrated payables solution that includes card, ACH, and check payments.

To address the City's need for an integrated payables solution, we propose using a consolidated disbursement solution. We understand the complexity of making payments can be a genuine challenge. Some of the common hurdles include:

- Employing effective internal risk controls.
- Using appropriate payment types to minimize cost.
- Juggling multiple currencies for payments across the globe.
- Satisfying global regulatory requirements.

With Host-to-Host Payments, the City can streamline operations and reduce expense by transferring many of the tasks involved in payment initiation from your operations to the bank. A secure connection can be established between your enterprise resource planning (ERP) or treasury management system

(TMS) to J.P. Morgan. This will enable you to send a single payment file containing multiple payment types (e.g., U.S. ACH, wire, Corporate Quick Pay, single-use accounts and check) to the bank. Host-to-Host Payments will authenticate the file, validate the content and route the transactions to the appropriate settlement networks.

Initiating the integrated payables process

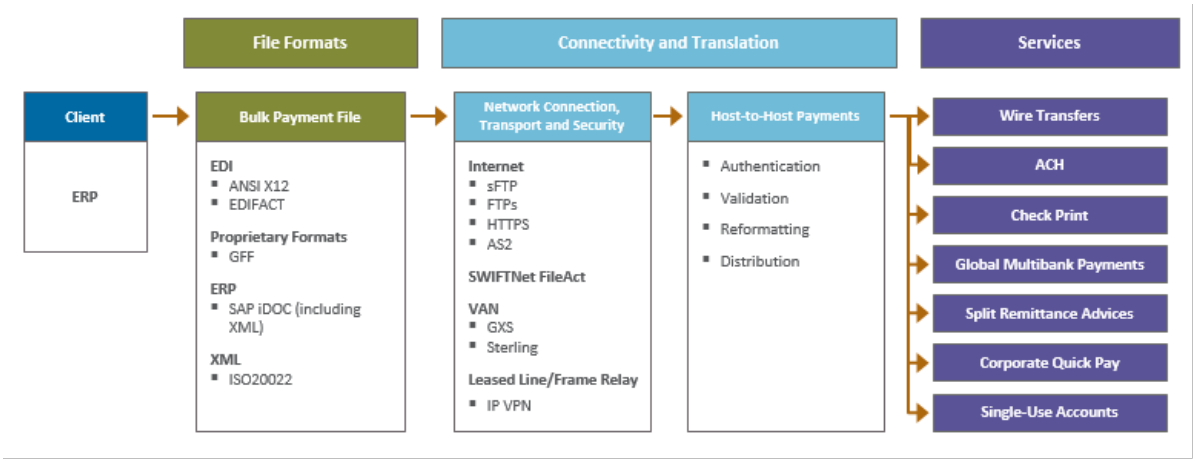


Figure 37.

Benefits of integrated payables

Online tools help the City manage your file-based communications and transaction workflow in real time, which provides greater visibility into your transactions.

Host-to-Host benefits

Efficiency	• Consolidates payment requests, such as accounts payable and payroll, to enable an efficient file transfer • Simplifies the payment and e-collections processes to reduce cost and resources
Visibility	• Manages file delivery and workflow in real time and allows you to view initiation status and transactions • Allows viewing of initiation status and individual transactions and provides a final approval step before the file is processed
Compatibility	• Integrates with ERP and TMS systems by leveraging industry-standard formats and standard network protocols • Multibank payment information advising for payments across all banks, and SEPA for European payments
Security	• Designed to protect transaction privacy and authenticity to reduce the risk of payment fraud: files are encrypted, digitally signed and transmitted through secure channels • Automated process reduces human error and improves risk control

6.19 Confirm that the Firm's comprehensive electronic/integrated payables platform accepts a single file for the following disbursement types:

Disbursement Type	Yes / No
Virtual Cards	Yes
ACH Payments to Vendors	Yes
ACH Payments to Consumers	Yes
Check payments	Yes
Digital disbursements	Yes

6.20 How many customers currently use your electronic/integrated payables service? How many used the service as of December 31, 2017, and as of December 31, 2018?

Integrated Payables is a solution-oriented approach to your payables process. Because the services included in each integrated payables solution are custom to each client's need, we are unable to provide exact information on volumes and the number of clients but we have implemented integrated payables related services with many of our 2,300 government clients across the U.S.

6.21 What are the options for transmitting vendor payment instructions to the bank?

Host-to-Host Payments employs industry standard file formats, advanced communications and data security interfaces:

- File formats:
  - Industry standard file formats – ISO 20022, ANSI X.12 and other industry standards on request
  - ERP-specific file format – SAP IDoc*/XML (*setup available with additional implementation review and costs)
  - J.P. Morgan Proprietary Global Flat File
- Transmission protocols: SFTP, AS2, VPN, SWIFTNet FileAct, etc.
- Encryption options: SSH, SSL, x.509, PGP/GPG

Host-to-Host Payments split remittance or remittance-only services can be combined with standard payment options to deliver remittance detail through secure email. Split remittance and remittance-only services support the delivery of extended data (beyond a payment system’s capacity) and remittance information for transactions that require printed notifications.

6.22 In the payment instruction file, what are the minimum, mandatory fields that must be transmitted to the Firm if using virtual cards only?

Basic payment information for virtual account payments (Single Use Accounts) includes the customer name, date, amount, masked account number.

6.23 If the City also includes ACH transactions in the payment file, what are the additional mandatory fields that must be transmitted to the Firm?

ACH transactions require bank routing number and recipient account number for processing.

6.24 What additional fields are recommended to be transmitted, but not mandatory?

The City can specify multiple custom fields to be associated with each virtual card purchase or payment. These fields can be matched to transactions and included in your reconciliation reporting. You can specify the type of data you want to pass in your custom fields, such as purchase order number, invoice number, payment reference number, vendor name or other remittance information.

6.25 Can the City instruct payments to be delayed within the payment instruction file and sent on a specific date, or will payments be initiated immediately?

J.P. Morgan would like to consult with the City to better understand and meet your needs for warehousing of transactions.

- ACH transactions: The maximum retention time for future-dated ACH transactions is 90 days for origination files received via direct transmission. ACH transactions are maintained 180 days after the effective date for online inquiry.
- Wire transfer: For wire transfer, J.P. Morgan accepts payment instructions up to 365 days prior to value dated and warehouses these transactions in our systems until the value date specified. J.P. Morgan will seek your confirmation of payment value date if a transaction is received more than 45 days in advance, to help eliminate errors. Warehousing is not limited to certain types of transactions. J.P. Morgan stores transaction records for 60 days as a preventative measure against duplicate records.
- Check print: J.P. Morgan does not warehouse transactions for future check print needs.
- Single-Use Account: J.P. Morgan does not warehouse Single-Use Account transactions.

6.26 What controls are in place to protect against duplicate files from being processed?

The firm leverages a proprietary infrastructure for Host-to-Host. As part of our corporate technology and infrastructure policy and transaction files received by or sent from the firm have an audit trail.

Once payment files are transmitted and received by Host-to-Host, they can be tracked and traced within the firm's environment. Host-to-Host can also provide the City with a confirmation for those files received, indicating whether the files and transactions have been received for processing or rejected, with the reason for such rejection. Host-to-Host also supports duplicate checking.

Details regarding the controls are confidential and proprietary to the firm and not for public disclosure.

6.27 How frequently can transmission files be uploaded to the bank for the issuance of additional payments? Is there a limit to the number of files per day?

There is no limit to the number of files sent per day.

6.28 Does the Firm provide any acknowledgement of the receipt of a payment instruction file? What information is contained in the receipt (i.e. number of payments, dollar amount of payments, etc.)?

Yes, acknowledgements and confirmations are provided for successfully processed files, as well as files with errors identified during processing. Corresponding returns and rejects are provided through the same connectivity used for transmission. J.P. Morgan's files are transmitted to clients with clear markers indicating whether a problem has occurred in processing. This allows for quick resolution and helps prevent payment delays.

J.P. Morgan will respond to each input file with a level one confirmation. A level one response consists of file level validation and control information. It will also include J.P. Morgan front-end transaction

validation. Each accepted transaction will be reflected with a confirmation record. Each rejected transaction will be reflected with a confirmation and reject record. A file trailer will also be sent. Additional levels of acknowledgements will be provided where applicable (FX transactions, ASC X12 processing etc.).

6.29 Describe the challenges of implementing a fully integrated accounts payable process.

Treasury organizations are getting serious about saving money, boosting efficiency and reducing their environmental footprints.

It should be no surprise that organizations that have adopted electronic treasury functions are generating financial and productivity efficiencies on several fronts that include, reducing transaction fees, lowering indirect business expenses, saving labor costs and time and improving efficiency, transparency and security. Through this process, companies can leverage payments to align to corporate objectives, improve working capital to maximize investments or reduce cash burn rate and build a business case for automation.

Trends

In response to persistent competitive and regulatory pressures, organizations around the world are developing new policies and adopting best practices to boost financial performance.

These initiatives are extending to treasury operations, where managers are adopting electronic solutions that respond to the following industry trends—to help them reduce costs and improve efficiency:

- Faster payments
- Fraud and risk mitigation
- Adoption of payments standard ISO 20022
- Environmentally responsible paper production and consumption practices
- Mobile and tokenized payments

Benefits

To reduce redundancies and better manage risk and business continuity, treasury departments are moving steadily toward a “zero-return” environment, where they send and receive information electronically with no paper returned.

They are adopting new processes supported by technology that meet their requirements for accuracy, secure transactions and regulatory compliance, and, in the process, they are creating leaner operations that benefit their organizations.

INTEGRATED PAYABLES BENEFITS

- Reduced transaction costs
- More efficient reconciliation
- Reduced fraud exposure
- Maximize working capital
- Improved cash forecasting

Focus on progress

First, the City may want to determine by treasury function the method that provides the optimal cost and efficiency benefits while also considering the steps toward electronic processing that will be easiest to implement. As a next step, identify key barriers to meeting optimal automation and work with service providers to overcome them. Consider using enrollment/procurement portals and technology platforms to exchange invoice and remittance information. Do not forget to decide how to measure success—establish goals and develop metrics to measure progress. Quantifying cost savings and benefits can help make a compelling business case to management. The City may find it helpful to offer incentives to staff, customers and suppliers to accelerate the move to the electronic method of choice.

6.29.1 How does the Firm help mitigate implementation challenges?

We are going where you need us to be. We are delivering on a global scale, all built on the same principle: valuing our relationships so we can make things easier for you. We are building the business you have asked for, so we can help you grow. J.P. Morgan builds relationships that last while helping you unlock a brighter future with a range of products that match your needs and make your treasury operations more efficient.

Automating may be easier than the City thinks, and we are here to help. We have created a variety of tools to help treasury managers review current operations, develop a strategy to migrate to a paperless environment and reduce redundancy by adopting an electronic treasury platform.

J.P. Morgan is investing in technology that empowers the City to connect with the bank's services however it is easiest for you. Our connectivity vision involves fully hosted solutions that offer easy but limited customization, integrations with leading Enterprise Resource Planning (ERP) and Treasury Management Systems (TMS) providers, as well as a growing API suite that seeks to provide enhanced experiences.

Moving from paper-intensive approaches to electronic processing

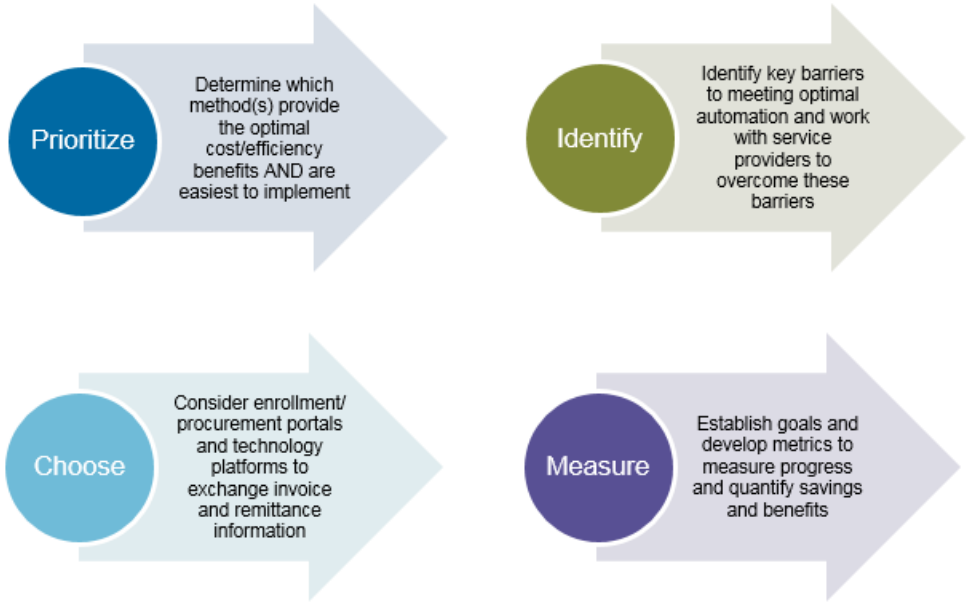


Figure 38.

Making progress and moving from paper-intensive approaches to electronic processing is the key to realizing cost savings and a green treasury.

We can help make it easier. We can help the City realize increased treasury performance through working with you to automate services in a way that makes sense for your organization. In turn, your efficiency improvements enable your organization to realize its sustainability goals.

J.P. Morgan will build a lasting relationship with the City founded on the principle of being the reliable bank focused on service excellence.

6.30 Payments to Vendors by Merchant Card

6.30.1 Are ghost cards or one-time use cards used for payment?

The J.P. Morgan Single-Use Accounts solution is an electronic, credit card-based payment method that can help the City more efficiently manage your payment process as well as help reduce costs and transform traditional areas of expense into potential revenue generators.

J.P. Morgan offers a true single-use account solution. Each single-use account has a credit limit equal to the approved payment amount. There is just one account per payment, helping to secure that the merchant has access only to approved funds for a specific payment.

Single-Use Accounts

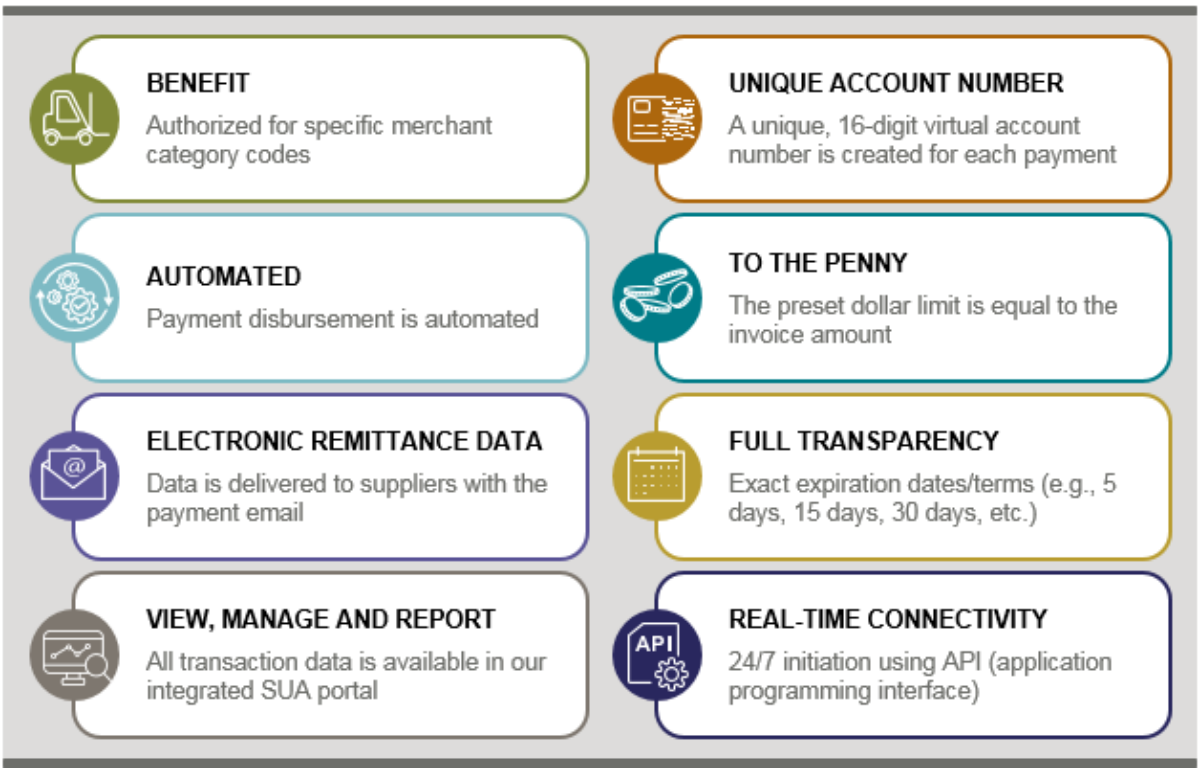


Figure 39.

Single-Use Accounts benefits

- Replacement of less efficient payment methods, such as checks
- The flexibility, float, and rebate of a purchasing card coupled with powerful payment control, anti-fraud, and reconciliation features
- Increased payment processing efficiency through automation and integration, improving record accuracy and shortening reconciliation periods while providing security and visibility throughout the payment cycle
- Financial returns in the form of a rebate
- An efficient way to hold on to cash longer while paying suppliers sooner

As part of our Single-Use Accounts solution, the City will have access to J.P. Morgan's industry-leading PaymentNet system, the engine that interfaces with Mastercard to create your accounts. You can also use PaymentNet for account and transaction management, advanced reporting, activity monitoring, statement access, reconciliation, and data integration tasks.

PaymentNet's SUA overview

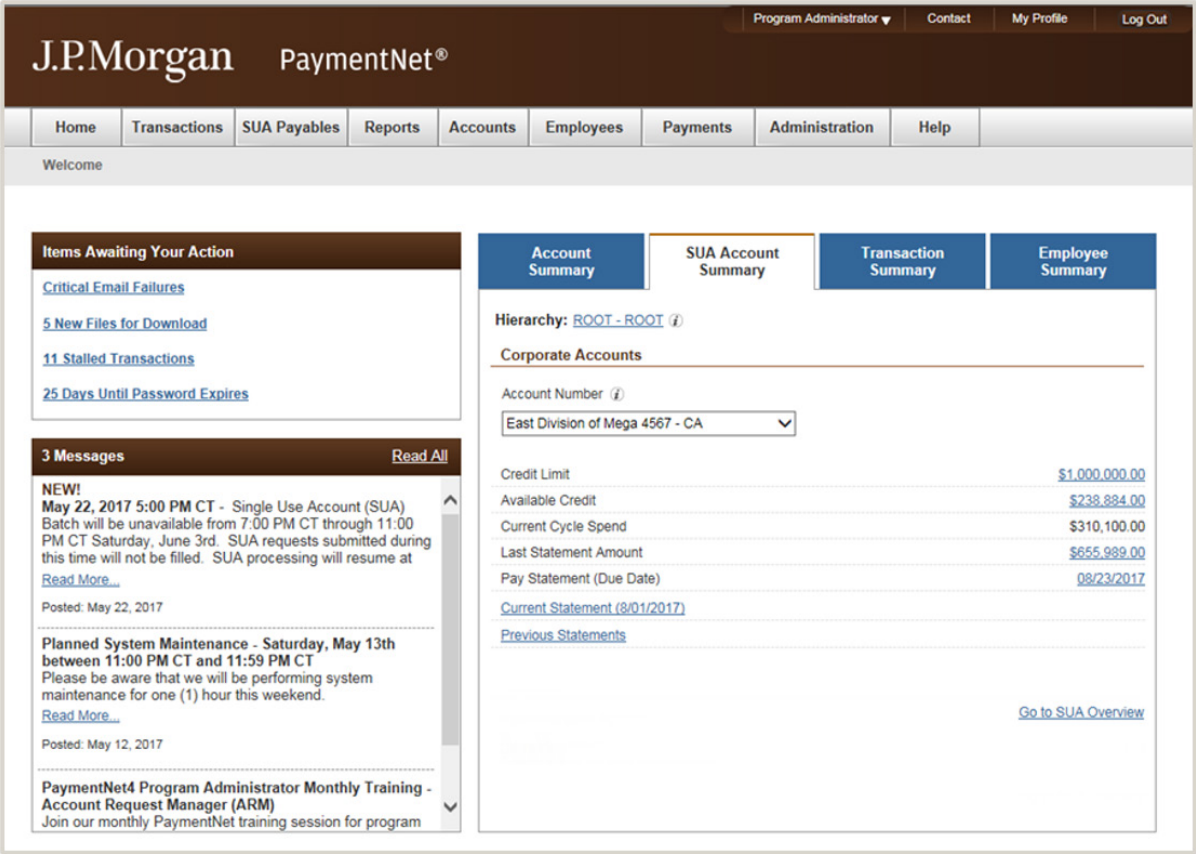


Figure 40.

Use PaymentNet for account and transaction management, advanced reporting, activity monitoring, statement access, reconciliation, and data integration tasks.

6.30.2 ***Describe how suppliers receive payments.***

We will send payment notifications to your suppliers via email or the City can choose to send these notifications. Notification emails include details such as line items, payment amounts, validity dates and remittance information to support reconciliation within your internal system. Emails also include the last nine digits of single-use account numbers. Your suppliers will combine these digits with the seven digits they will be provided during enrollment to create a unique virtual credit card number. Suppliers process single-use accounts the same way they would any other credit card payment—by keying information in their point-of-sale terminals.

Single-Use Accounts process flow

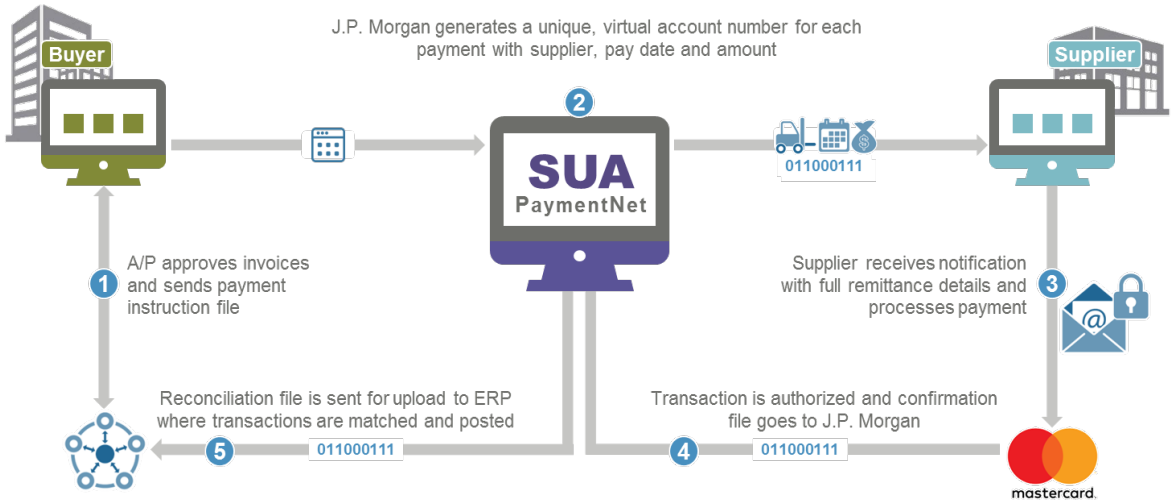


Figure 41.

Our batch process allows users to create single-use accounts from within their ERP systems.

6.30.3 ***For vendors that are willing to accept virtual cards, do you offer a portal for vendors to retrieve payment instructions?***

Yes, J.P. Morgan offers SUA Connection, which makes it easy for your suppliers to process and track SUA payments. A user-friendly online resource, SUA Connection empowers suppliers via:

- Full visibility into SUA payment status
- Intuitive user interface to simplify payment processing and tracking
- Self-serve options to minimize missed/expired payments and improve days sales outstanding (DSO)
- Easy access to aggregate remittance data to streamline reconciliation
- Supplier-defined profile, preferences and user access control to help ensure tailored support

SUA Connection is easy to navigate and offered to suppliers at no additional cost.

SUA Connection – Payments at a Glance

J.P.Morgan | Single-Use Accounts Connection

Mark Admin Help Log Out

Home Exports

Reminder - Please review your Company Profile to ensure it is up to date. Details

Payments at a Glance

21 Payments to Process

1 Payments with Declines

0 Missed Payments (Past 30 days)

All Payments > Payments to Process

Filter by: Payment ID SEARCH THIS TABLE

Customer Name	Account Information	Payment Amount	Payment ID	Status	Days to Process	Details
Teresa's Cookie Factory Billing Zip Code 60606	5529 0535 3203 1812 CVV 123 Expires 03/2016	$2,341.13 USD	3826998SUA	Open	1 day	>
Carpet Installers Premium Billing Zip Code 60124	4804 1231 3359 7393 CVV 678 Expires 05/2016 SINGLE AUTHORIZATION	$4,131.26 USD	3829998SUA	Open with Declines	2 days	>
Rachels Restaurant Billing Zip Code 50505	4864 6233 2979 3067 CVV 445 Expires 04/2016	$896.63 USD	3852998SUA	Open	9 days	>
Rachels Restaurant Billing Zip Code 50505	4864 6239 5207 7234 CVV 445 Expires 04/2016	$4.59 USD	3856998SUA	Open	9 days	>

Figure 42.

Participating suppliers will be able to access all of their SUA transaction data from all of their customers who use SUA in one convenient place.

Your suppliers will be able to:

- See payments waiting to be processed and the number of days remaining until expiration
- Review payment declines (including decline rationale), along with any missed payments
- View any account number to see if it allows multiple transactions, as well as the amount remaining and any posted transactions
- Download aggregate remittance data
- Maintain profile, preference and contact information for their organization
- Control user access
- Leverage the Technical Support Desk for questions/issues

6.30.4 Does the portal include payments from all entities paying the vendor by virtual card or only transactions initiated by the City?

Yes, using SUA Connection, suppliers can add additional customers who use SUA to their profile and access applicable payment data.

6.30.5 If the supplier reverses a payment, identify the impact on the available balance for the card.

As a best practice, we recommend that the City collect refunds by requesting that vendors post credits on the single-use account numbers. In the event of a dispute or unauthorized charge on an SUA account, you may collect refunds using our standard dispute/fraud process.

6.30.6 Are there any reports that the City can access that identify initiated but unprocessed card payments?

PaymentNet provides a weekly single-use account exception report or orphaned transaction report for the City to address initiated but unprocessed SUA payments.

6.30.7 If an email is sent to vendors, provide an example of the correspondence sent. Can the body of the email sent to vendors be customized by the City?

J.P. Morgan offers secure email functionality using Voltage SecureMail. Secure email provides full account information in a single, encrypted email message.

The full account information includes:

- 16-digit account number
- Expiration date
- Card security code (also known as CVV/CVV2)
- Billing zip code

Merchants can opt in by choosing the opt-in link at the bottom of the payment notification sent within the last 30 days, and following the steps to register. Once registered, payment notifications to that merchant will be sent via secure email.

The body of the email can be customized by the City prior to sending to vendors.

A sample email has been provided in Appendix 10.

6.30.8 If a vendor does not process a credit card payment, after how many days does the card number "expire" and can no longer be used? Before the card number "expires," does your system send an automated reminder notice to the vendor informing them that they have a payment that has not been processed?

Yes, account expiration warnings are generated by our system and sent out via email at 10, 7, 4, 2 days and 1 day prior to the expiration date. The City has the option of extending account number end dates in PaymentNet. If the merchant's email address is included when extending the payable's expiration date, the system will continue to generate appropriate reminder emails.

6.30.9 For the program administrator, please provide a screen shot of the page summarizing virtual card transactions that will be expiring soon or have expired.

Our user-friendly SUA Payables module offers increased visibility and efficiency. The SUA Overview screen is the new home page for the Payables module. This screen presents information about payables, vendors, and the overall SUA Payables program in one centralized place. Benefits include:

- A streamlined experience for full visibility into SUA payables status, bringing relevant information to a single screen
- At-a-glance view of all payables that may require attention along with multiple configurations to view payables list
- Detailed vendor information (spend, updates, etc.) as well as data provided by suppliers via SUA Connection, our supplier portal

SUA overview screen

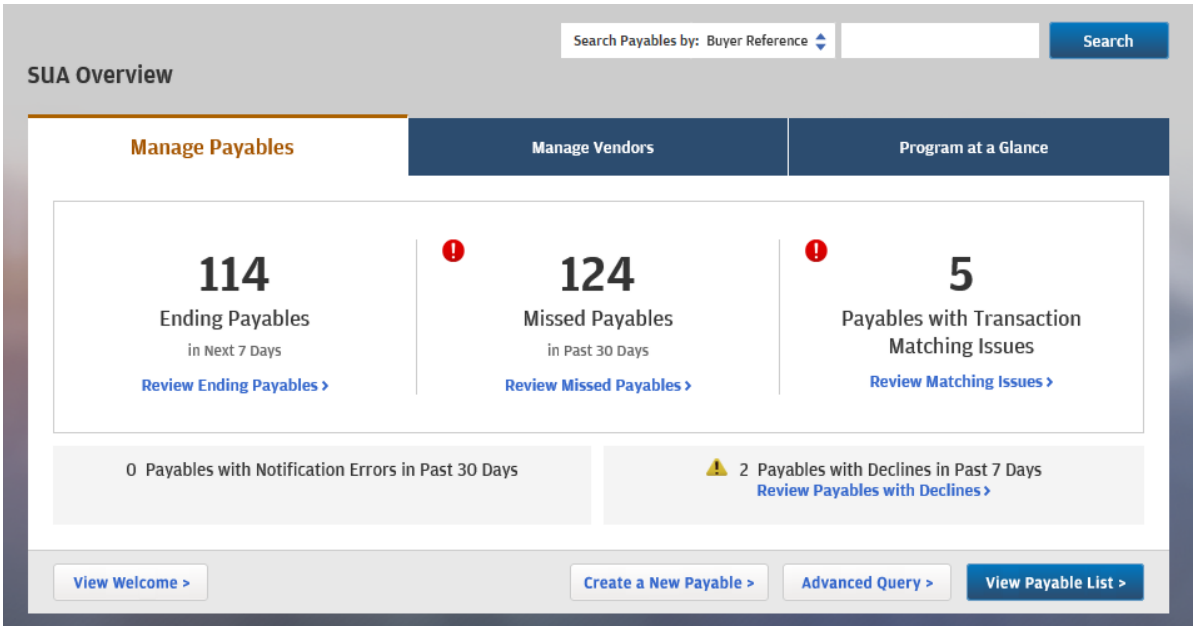


Figure 43.

6.30.10 For virtual card transactions with expiration dates that are soon to expire or have expired, can the Program Administrator extend/reset the expiration date applicable for the transaction?

Yes, the City can use PaymentNet to extend a payment's active period, as well as to create customized reminder emails for suppliers. These emails can be configured to be sent automatically within a certain number of days before an account's end date. In addition, you can use PaymentNet to track the status of each payment (including changes).

6.30.11 Do you offer a Buyer Initiated Payment (push pay) Program? If so, provide an explanation of how this service would operate. Does a different rebate schedule apply?

Yes, J.P. Morgan offers both push and pull payment options. The push option is convenient and provides end-to-end payment automation. It does not include a separate rebate schedule.

Push payment method

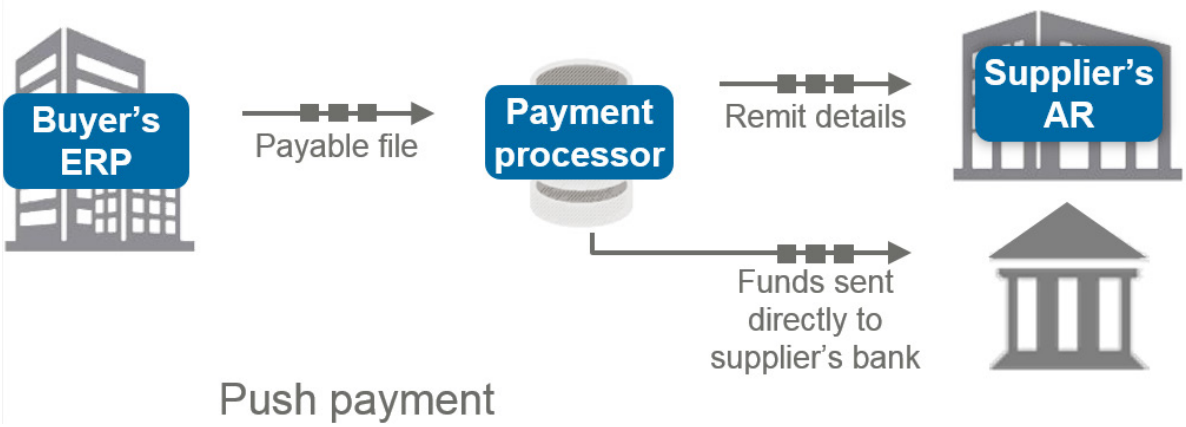


Figure 44.

6.31 Payments to Suppliers by ACH

6.31.1 For vendors that are willing to accept ACH, do you offer a portal for vendors to provide updated payment instructions?

Yes, J.P. Morgan's Integrated Payables Connect allows the City to pay your vendors electronically, once they have enrolled their bank account using a City-branded online and mobile enrollment portal.

With this service, J.P. Morgan will host an online and mobile enrollment portal for you allowing your vendors to provide their ACH routing information. When you provide payment instructions, Payables Connect will look up your vendor to determine if they have enrolled to receive ACH payments, then initiate payment. If the vendor has not enrolled, we can automatically print and mail a check to them to make the payment. As you increase the number of your electronic payments, these ACH transactions will increase while your number of checks printed correspondingly declines.

Integrated Payables Connect is an organized, systemic way to gradually migrate your vendors to electronic payments. The solution provides numerous benefits, including:

- Eliminates the need for you to collect and store confidential financial information (PCI-related information) about your vendors. Given recent cybercrime activity, it is a best practice to secure this data and minimize potential liability.
- Allows for different brand options to present to vendors.
- Reduces the processing error rate by providing more up-to-date routing information.
- Simplifies your processing and improves reconciliation through reduced escheatment, stop payments, postage, printing and other check-related issues and costs.
- Leverages a single-file for payment initiation using Host-to-Host Payments.

6.31.2 For vendors enrolled by your Firm for ACH transactions, do you expect the City to communicate the bank routing and account information in the payment instruction file? If not, how are these payments made?

Yes, once the vendor has enrolled, the City can initiate outbound ACH credit transactions for vendors that have active enrollments in Connect.

- The City can send the required payment data to Connect via batch file, real-time interface, or Host-to-Host Payments. Host-to-Host Payments is expected to be available during 2019. Please note that availability, features and functionality are subject to change.
  - The information provided for the transaction will include the user's ID or defined alias, statement number, payment amount and payment date.
- Payables Connect will associate the data received from the City with the vendor's active enrollment and process the resulting ACH credit transaction per Nacha guidelines.
- If the vendor has not enrolled, J.P. Morgan can automatically print and mail a check to make the payment.
- The vendor will receive an email confirming the payment, as well, as settlement of funds in the designated bank account. The confirmation email will contain the City-generated statement number associated with the transaction.
- Depending on configuration decisions, the City can optionally present a PDF image of the statement associated with this transaction to the vendor on the online portal.
  - This PDF image can contain additional detail regarding the transaction.
  - Statement images are provided to Payables Connect via a batch file interface.

Payables Connect workflow

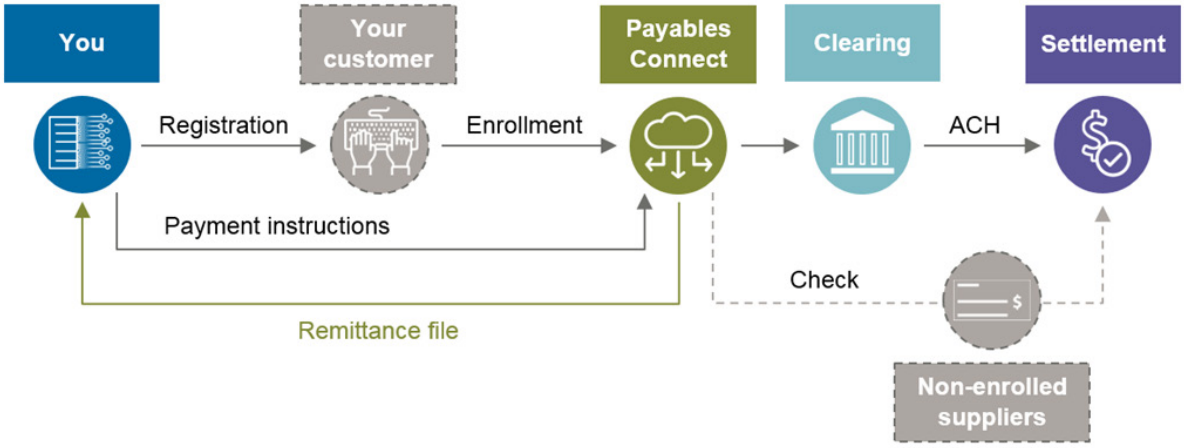


Figure 45.

6.31.3 What steps does the Firm take to validate the legitimacy of the banking instructions provided to ensure funds are made to the correct payee?

Integrated Payables Connect can support ACH payments that are processed to a valid U.S. financial institution. J.P. Morgan processes all ACH transactions in compliance with NACHA rules and in keeping

with leading practices. We employ commercially-reasonable measures to minimize the potential for fraud. Among the ways Connect will help the City minimize the potential for returned or fraudulent ACH payments include:

- Account number length and format validations
- Bank routing number verification with mod-10 check
- Recoding of a credit or debit authorization with valid date and timestamp
- Notification of change updates automatically processed
- Automatic subscription to ACH Artificial Intelligence which reduces returns by correcting transactions before they are processed using collective data from all J.P. Morgan ACH originators

We will originate ACH transactions on your behalf and settle ACH payments to your bank account with us.

Each day's transactions, including adjustments such as refunds and returns, are reflected in the daily remittance file. Additionally, the Settlement Summary Report and Payment Card Batch Report are useful in reconciliation of card payments. These reports are available on Connect's administrative site.

Routing number validation

When a new bank account is added by a vendor to their profile, the routing transit number is validated. If the routing transit number is not valid, they will not be able to add the account and are prompted to correct it. The City must edit bank account information after original enrollment.

6.31.4 If your Firm maintains the vendor's banking instructions and a fraudster manipulates the instructions resulting in the payment not being made to the intended recipient, will the City be liable to make the payee whole?

Liability for funds transfers is governed by our account and service terms, which incorporate the provisions of the Uniform Commercial Code Article that govern funds transfers. Enforceability is determined under, in part, UCC Sections 4A 202 (a) and (b).

6.31.5 Does your Firm assign a vendor code? Is the vendor code assigned by your Firm, or do you use the City's unique vendor identification code?

Payables Connect can support the City's unique vendor identification code subject to meeting J.P. Morgan code parameters.

6.31.6 Are ACH transactions initiated through the Firm's Electronics Payable Platform priced the same as an ACH initiated by the City through a NACHA file? If not, please include pricing information.

ACH transactions are priced the same, however there are additional costs for Payables Connect transactions as shown in the Cost Proposal.

6.32 Payments to Suppliers by Check

6.32.1 Describe the Firm's experience in providing check-printing services.

We have offered check print and dispatch services for more than 20 years.

6.32.2 How will the City transmit check payment information to the bank?

The solution for the City involves using Host-to-Host Payments combined with check print outsourcing services to move the check print function out of your account payables process.

CHECK PRINT ADVANTAGES

- Minimizing cost associated with manual check processing.
- Reduce costs associated with maintaining in-house print operations.
- Free up resources to focus on core competencies.
- Eliminate capital investments in machinery and technology.
- Rely on tested and proven disaster recovery capabilities.

Transmit check payments

Host-to-Host Payments employs industry-standard file formats, and advanced communications and data security interfaces:

- File formats:
  - Industry standard file formats – ISO 20022, ANSI X.12, UN*
  - ERP-specific file format – SAP IDoc*/XML
  - J.P. Morgan Proprietary Global Flat File*
- Transmission protocols: SFTP, FTPS, HTTPS, AS2, VPN, SWIFTNet FileAct, etc.
- Encryption options: SSH, SSL, x.509, PGP/GPG

* Setup available with additional implementation review and costs

Host-to-Host Payments split remittance or remittance-only services can be combined with standard payment options to deliver remittance detail through encrypted email. Split remittance and remittance-only services support the delivery of extended data (beyond a payment system's capacity) and remittance information for transactions that require printed notifications.

6.32.3 What is your cut-off time for receiving files for vendor checks to be printed on the next business day?

Check print requests are sanction screened prior to printing. Checks that pass sanction screening are sent for print. Check print files received and sanction screened by 9:00 a.m. PT will be printed and mailed the same day. To allow time for any client dual approvals and completion of the sanction screening process, it is recommended the file be sent no later than 8:30 a.m. PT.

6.32.4 Can the check print file include a future date for printing and mailing of the file of checks or individual checks within the file (i.e. can a file be transmitted today, but the checks are not printed and mailed on a same day or next day basis)?

J.P. Morgan does not warehouse transactions for future check print needs.

6.32.5 What controls do you employ to assure safety of customer data transmitted, check stock, and safeguarding of the checks before they are mailed?

We have an extensive network of controls and safeguards surrounding transmission of check print files and check security.

Transmission controls

Host-to-Host transmissions employ industry-standard encryption and authentication standards, both for inbound and outbound transmissions. To provide secure and reliable client interaction, security is divided into two areas: Transport and Payload. We utilize SSL and SSH for transport security and either PGP or x.509 for payload. Additional details are confidential and proprietary to the firm and are not for public disclosure.

Check stock

Our new check paper stock provides security features such as chemical sensitization, invisible fluorescent security fibers, security watermark and security alert verbiage.

Safeguards

J.P. Morgan has instituted strict controls in our print, insertion and dispatch processes to secure all items processed in our facilities. Central to this is our Automated Document Factory (ADF) solution which tracks each item throughout the entire print process within our facility, guarding against any lost check scenarios.

6.32.6 Describe the process that you would use to verify that all records have been received and processed.

For transmission of payment files, J.P. Morgan acknowledges the physical receipt and the results of the syntax edit of the payment file with the ASC X12 997 Functional Acknowledgment and 824 Application Advice within one hour after receipt of the 820.

J.P. Morgan can also accept and verify the ASC X12 831 Control Totals transaction set to reconcile transaction totals.

6.32.7 What quality controls are in place to prevent errors in printing?

Our quality controls throughout the bank are an area of continual focus and improvement for us. With check print, as with all services, we will not sacrifice the accuracy of our work for any other consideration. For purposes of audit control and security, our standard check print process uses blank roll feed stock, with digitized logos and signatures applied electronically to each item as it is printed. We recognize the importance of printing high quality checks to maintain low check reject rates. As such, samples of checks are requested periodically throughout the day by the Quality Control area. Sample checks are tested for both MICR quality and conformity to the established check specifications. Should the checks not pass the MICR quality test, then the checks are not permitted to be mailed. They are securely shredded, reprinted and quality checked again for proper adherence. If the issue is determined to be file-based, internal J.P. Morgan technology contacts are engaged to troubleshoot and resolve the issue.

Duplicate file checking is performed prior to any document being printed. Additionally, we have an Automated Document Factory (ADF), a workflow solution used in our facilities. The ADF serves as a job and piece-level tracking solution for the entire document workflow from print through dispatch. As each separate print job is processed, ADF allows operators to match file item counts to actual page counts upon completion of each job. Should a discrepancy occur, ADF can be used to identify the exact page where the count became out of synch and quickly troubleshoot and resolve the issue. The results are

then logged and validated by a supervisor before the printing process is restarted. The final production output is then recorded.

6.32.8 What are the hours of your printing operation?

Our check print services process operates five days a week, Monday through Friday. The City can send files for processing at any time, 24 hours a day, seven days a week, 365 days a year.

If received on a bank holiday, files will be processed the next business day. If files are received over the weekend, they will be held for Monday processing.

6.33 Vendor Enrollment

6.33.1 Discuss your approach in recruiting vendors on the City's behalf to your Firm's electronic payables platform.

Our campaign approach is holistic, effective and fully-supported by J.P. Morgan staff. Our onshore dedicated recruitment team will reach out to your supplier via phone call or email to enroll your suppliers in SUA. We will work with the City to tailor a campaign strategy to optimize your program goals, and throughout the course of the recruitment campaign we will leverage various capabilities to make certain that SUA is a compelling payment method for your suppliers.

Supplier recruitment

Your assigned Campaign Manager will provide you with your targeted SUA supplier list, project timeline, and the communication templates to be used when contacting your suppliers. Upon approval of these key deliverables, our Recruitment Specialists will begin contacting your suppliers.

During the recruitment campaign, you will be provided detailed reports, tracking recruitment efforts and progress, during weekly conference calls. These calls also serve as an opportunity to resolve any issues that may arise (e.g., incorrect supplier information). In conjunction to the scheduled calls, your Campaign Manager will be available to provide consultative support as needed.

As suppliers confirm they will accept virtual single-use account payments, the City can update your ERP to reflect the new payment type and begin paying those suppliers via single-use accounts.

6.33.2 What are the steps for signing up a vendor? Does the Firm have an online self-enrollment internet portal for vendors to register?

J.P. Morgan will recruit suppliers. The City will then add the supplier’s email address to your AP system upon confirmed enrollment. The status of enrolled suppliers and those that still need to be paid by check will be communicated to you in a weekly recruitment report generated by your assigned Campaign Manager.

The supplier’s email address will be the only required information required in your AP system for a payment to be processed by your supplier. The supplier’s email address will be provided to you in your weekly recruitment report.

6.33.3 Identify the number of suppliers your firm currently has enrolled. Please specify the number of vendors currently receiving card payments vs. ACH payments.

We currently have over 450k vendors in our network as SUA accepting. We do not have the statistics available on card payments versus ACH payments.

6.33.4 If a supplier is already enrolled with your payables platform, can these vendors be paid immediately, or does your vendor enrollment team have to contact the vendor first? Is the process the same for ACH and card payments? If not, describe the differences.

In the analysis of your vendor file, we will identify active suppliers that already accept our Single Use Account as a form of payment. Those suppliers will not need to be separately contacted to accept an SUA payment from the City. Most suppliers can accept payments via ACH and would not need to be contacted separately.

6.33.5 Who makes outbound phone calls to vendors (i.e. employees of your bank or a third-party)?

Suppliers will only be contacted by our dedicated Supplier Experience Team. J.P. Morgan uses internal resources to perform supplier campaign and support services for clients. We augment our internal staff with a trusted third-party partner, Winn Technology, allowing J.P. Morgan the ability to ramp up quickly to support campaign and servicing activities. Winn Technology is located in the U.S. and has worked with J.P. Morgan for over 10-years.

6.33.6 How many professionals on the vendor outreach teams does your Firm employ? For these individuals, what percentage of their time is dedicated to vendor outreach calls or activities?

The size of teams varies depending on the number of campaigns. There are typically about 60 callers total, but we can ramp up as needed, based on campaign needs. Our vendor outreach teams are dedicated to outreach calls and related activities 100% of their time.

6.33.7 Is the vendor outreach team empowered to sign up the vendor or is it handed off to another department?

Yes, we onboard suppliers during the campaign process. This is normally a 12-week period. Following that, the City can self-enroll at any time. In addition, J.P. Morgan recommends that the City provide an updated vendor file every 12-18 months to identify additional spend opportunities. The iterative campaign process is designed to capture new vendors and incremental opportunities.

6.33.8 Will you provide vendor payment information (i.e. contact person, e-mail, address, phone number, bank routing and account number) to the City?

True ownership of vendor payment information belongs to the specific vendor. However, it is up to the City to maintain payment details and share that information with J.P. Morgan using a payment instruction file. The City may also elect to send manual SUA payments via PaymentNet.

6.33.9 What policies or procedures would you recommend the City adopt to maximize vendor acceptance of the City's electronic payment options?

To maximize the effectiveness of your Single-Use Account program, J.P. Morgan recommends the following:

- **Executive Sponsorship**: An Executive Sponsor is key in communicating the importance of this payment initiative to the key stakeholders within an organization. Without an internal champion, your program may encounter resistance from within your organization.

- **Flexibility in Payment Terms**: Clients unwilling to change payments will find that suppliers are less likely to enroll in their SUA programs due to merchant interchange fees assessed to them for processing payments.
- **Dedicated Resource**: Clients can benefit from a dedicated resource to address supplier inquires and information requests during the recruitment campaign. Without a dedicated resource, stakeholders may not receive the education, direction and/or analysis necessary to reach enrollment goals.
- **Partnership between Accounts Payable and Procurement**: Open communication and collaboration within both Accounts Payment and Procurement is critical for a successful recruitment campaign. Failure to align goals between stakeholders may lead to conflicting directions that interfere with the ability to develop a successful program.

6.34 Fees

6.34.1 Identify all fees and charges for the electronic/integrated payables solution, including payment by purchasing card, check and ACH, that the City would be responsible for paying in an electronic/integrated payables environment.

Please see the Cost Proposal for all fees associated with our integrated payables solution, provided through our Host-to-Host mixed payment file.

6.34.2 For how long will the Firm guarantee the proposed fees/rebate?

The proposed rebate/fee schedule is valid for 180 days from the date of this proposal.

8 Implementation / Conversion

(All firms must respond to this section.)

8.1 Provide a detailed conversion plan for transitioning each of the proposed Service Groups to your Firm. Include the estimated length of time for the transition and the amount of effort required by City staff.

Please see the sample implementation plan provided in Appendix 11.

8.2 Who will be responsible for coordinating the transition for each of the proposed services? If a conversion team is used, how will the City's account be transitioned to the ongoing client service team?

An onboarding specialist will be assigned to serve as the City's primary point of contact throughout the process. Your onboarding specialist, who has end-to-end ownership and accountability of the implementation, is responsible for communicating regularly with you and coordinates activities across the bank. Regular, often weekly, meetings occur to share information and measure progress.

Your onboarding specialist works with you to validate the solutions you have requested, establish timelines for implementation and then coordinates with the necessary teams across your organization and J.P. Morgan to complete the setup.

We view the implementation process as a pivotal phase in our relationship and an opportunity to demonstrate the value of our expertise and consultative capabilities. Our project management methodology is designed to build a strong understanding of your objectives.

The onboarding specialist is responsible for:

- Forwarding new account and product documentation, file specifications, start-up packet(s) and procedure manuals to the City.
- Contacting your designated representative(s) to complete all required documentation and determine specific product instructions.
- Reviewing and completing product questionnaires with you, as appropriate.
- Opening required accounts.
- Ordering depository supplies.
- Coordinating with our operations group to make sure products are set up to your specifications.
- Coordinating file and transmission testing with the technical implementation specialist for both teams, which includes:
  - Transmission options review and setup
  - File testing
  - File security
  - Providing test and reports to the City
  - Examining all reports and elements of file testing and processing
  - Updating all parties on progress
- Confirming delivery of PINS and instruction guides.
- Providing required training or other assistance, as needed.

- Monitoring initial depository activity and confirming depository products are working as expected.
- Organizing a post-implementation meeting to review your account analysis statement.
- Coordinating the hand-off to your designated client service professional, Ana Prieto, for ongoing servicing.

An established project flow and framework is followed when executing the setup of products and services.

Implementation process flow

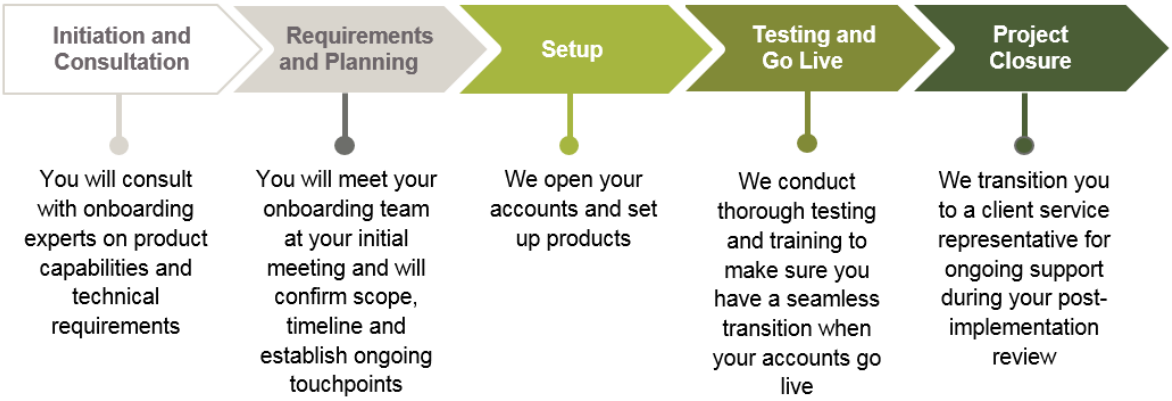


Figure 46.

8.3 We recognize that successful implementations will require frequent communication. During the course of the transition, how many in-person implementation meetings are typically scheduled? How many are you willing to commit to for this relationship?

We recommend regular meetings during the course of your transition. The frequency of these meetings will be determined by the City, we recommend weekly or more frequent meetings during the initial implementation phase. Your relationship team and onboarding specialist will meet with you as often as necessary to track the progress of your implementation and help ensure all deliverables are being met.

8.4 Indicate the Firm's plans for initial and ongoing education and training of City staff in the use of your Firm's systems.

We offer the City a variety of methods for training without any cost to you, such as webinars, phone and short step-by-step prerecorded videos.

The following resources are available:

- **Change Order Procedures/Systems**: The City will be provided with a number of materials, including the procedures and worksheets for our automated IVR or web-based coin and currency ordering system, depending on your preference, during the implementation process.

- **Access Online:** Available on Access Online's Support via the Education tab. Resources include online help articles, FAQs, guides and a range of live and pre-recorded webinar offerings on how The City can use the Access Online products and services. Short how-to videos are also available from certain Access Online screens.
    - **Webinar Training**: Instructor-led sessions are available on many of our products including Receivables Online and Remote Deposit Capture. For Access Online, we have webinars for each of our products in the Access Online family. Each webinar lasts between 15-90 minutes. Webinar registration is available via Access Online's Support/Education page.
    - **Phone Training**: Customized one-on-one training conducted over the phone is offered to meet the City's unique needs for all Access Online products and services. To schedule a one-on-one session, you may contact Client Access Training at **866-619-3055**, Monday through Friday, 4:30 a.m. until 4:00 p.m. PT.

9 New Services & Ideas

(All firms must respond to this section.)

9.1 Describe any new services or ideas that will enhance the City's use of banking services.

J.P. Morgan's particular expertise lies in adapting and aligning our vast breadth of solutions to the specific operating requirements and unique environments of our clients. We accomplish this by listening to our clients and developing an understanding of their operating environments. We then construct a solution that not only meets our clients' existing operational needs, but also challenges them to consider additional operational improvements. It is our intent to bring this same approach to the City as we endeavor to strengthen and grow our relationship.

The services below are proposed to augment and complement the requirements included in the RFP. Each of these services is incremental to the solutions presented in the body of our response. Pricing for these services will be provided upon request.

The following optional, value-added services and products are detailed below:

- Corporate Quick Pay
- Corporate Quick Collect
- Real Time Payments
- Early Warning Services
- CashFlow360℠
- Artificial Intelligence Services

Corporate Quick Pay

Corporate Quick Pay allows the City's consumers to accept payments via email or text. This innovative solution not only makes accepting payments easier for your consumers, but it is more efficient for you as well.

The City supplies us with your consumer's email address, payment amount, name and desired remittance data using Access Online manual entry or file upload—or by using direct transmission, including a mixed payment file option. Corporate Quick Pay then generates an email for the consumers to accept the payments for deposit into their personal bank accounts.

A recent addition to Corporate Quick Pay is the Real-Time Payments option, where payments that are deposited at a participating financial institution can be sent in real time for an additional fee.

Enrollment is easy. Your consumer creates a profile on the consumer-facing online system, Chase Payments, that will be used by consumers to accept future payments from the City or any other payer using Corporate Quick Pay into that consumer's personal bank account. This provides a better and faster experience for your consumers, allowing them to accept a payment without having to provide bank account information each time.

Chase Payments sample page

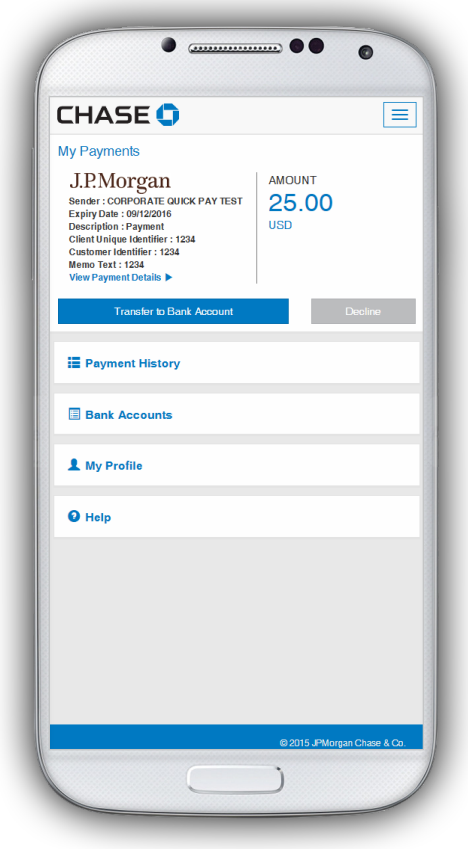


Figure 47.

Our Corporate Quick Pay solution has the ability to send email and text notifications to your consumer for payment acceptance.

Corporate Quick Collect

Our Corporate Quick Collect (CQC) solution, built for mobile and online interactions, enables the City to request electronic payments from your customers. You simply provide us with your customers name, email address, payment amount due and desired remittance data. By using online manual entry, CSV file upload or transmission you initiate payment requests. We send an email/text message—co-branded with both City and Chase logos—inviting your customer to make the payment. Your customer can pay, decline or modify the amount. When they accept the invite and provide account information they can then authorize an ACH debit to their account. You receive credit as soon as the next business day.

How Corporate Quick Collect works

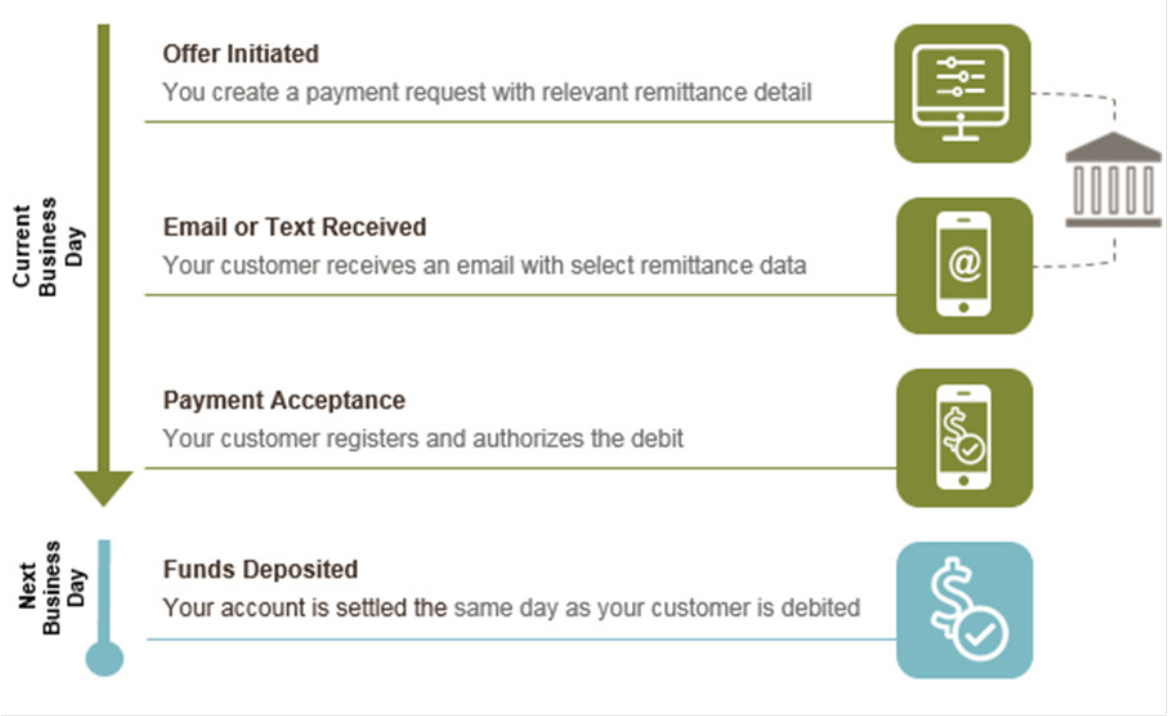


Figure 48.

Benefits

- Saves you time and money.
- Provides secure portals for online and mobile security.
- Integrates into existing payment initiation, settlement and reconciliation processes.
- Request payments immediately or easily integrate your consolidated receivables file.
- Allows for customizable remittance details—up to 25 customizable fields—to increase payment acceptance and customer trust.
- Allows your customer to make a payment from their checking or savings without having to engage a call center or write and mail a check.
- Provides reporting for each payment request to aid in reconciliation with your back-office systems

Our CQC solution provides you with a low-cost alternative to collect low value, low frequency, non-recurring payments.

Real Time Payments

Despite multiple ways to make a payment, gaps remain in addressing a range of payment needs including speed, information, and the automation of surrounding processes. The introduction of Real-

Time Payments—the first new U.S. payment system in 40 years—can help you do more than move money. It can transform how you do business.

Real-Time Payments combines immediate funds availability, payment finality, instant payment confirmation and integrated information flows—all in seconds.

Address more business needs

These qualities combine for an affordable way to serve more business needs such as:

- Making urgent payments just-in-time
- Disbursing rebates, claims and other sensitive payments right away
- Sending a request for payment with invoice details

The initial launch will focus on payments between businesses and then expand to include payments to consumers.

Real-Time Payment workflow

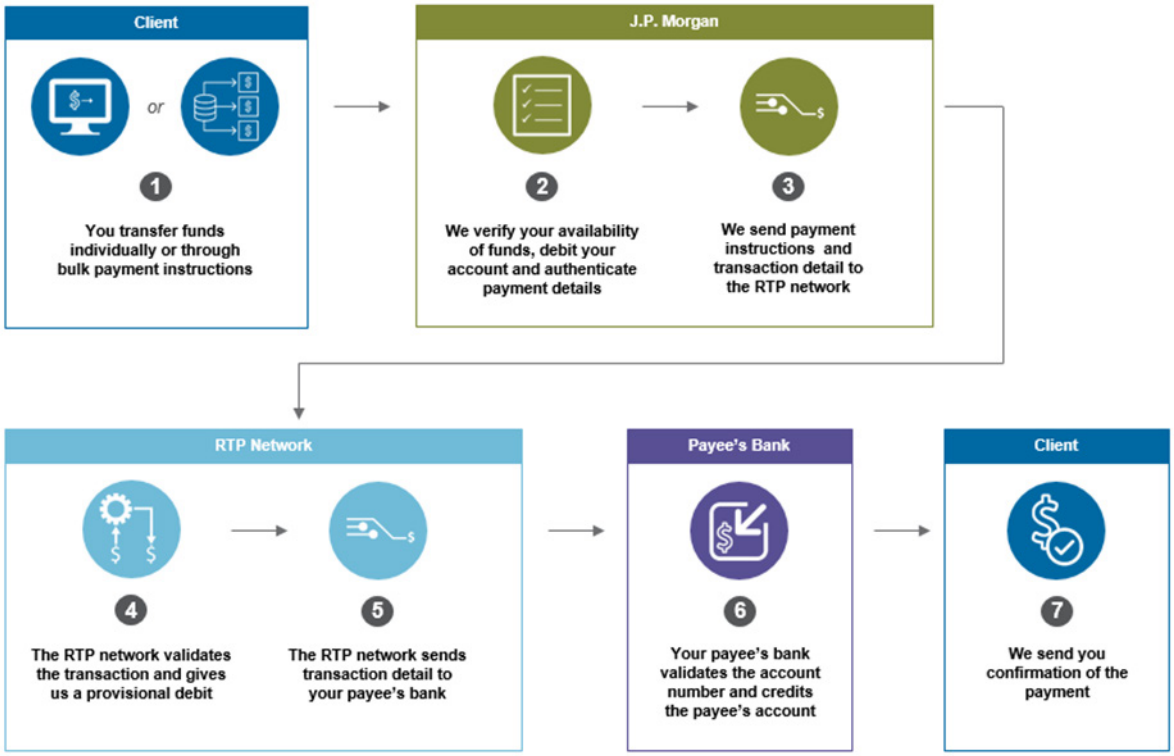


Figure 49.

Key features of Real-Time Payments

- **Immediacy**: Payees receive funds within seconds of initiation from your funded DDA.
- **Finality**: Payment is irrevocable, but there is a process for requesting a return of funds.

- **Instant Confirmation**: The payee's bank notifies the remitter and payee as soon as funds arrive. Payment confirmation includes transaction details.
- **Integrated Payment Flows**: Real-Time Payments use ISO 20022 payment messaging standards to provide more comprehensive data and two-way messaging capabilities.
- **Availability**: You can make payments 24/7/365. Anytime payments support any situation where timing is urgent.
- **Payment Size**: Initially the maximum size credit transfer will be $25,000. We expect this limit to increase over time.

Benefits of Real-Time Payments

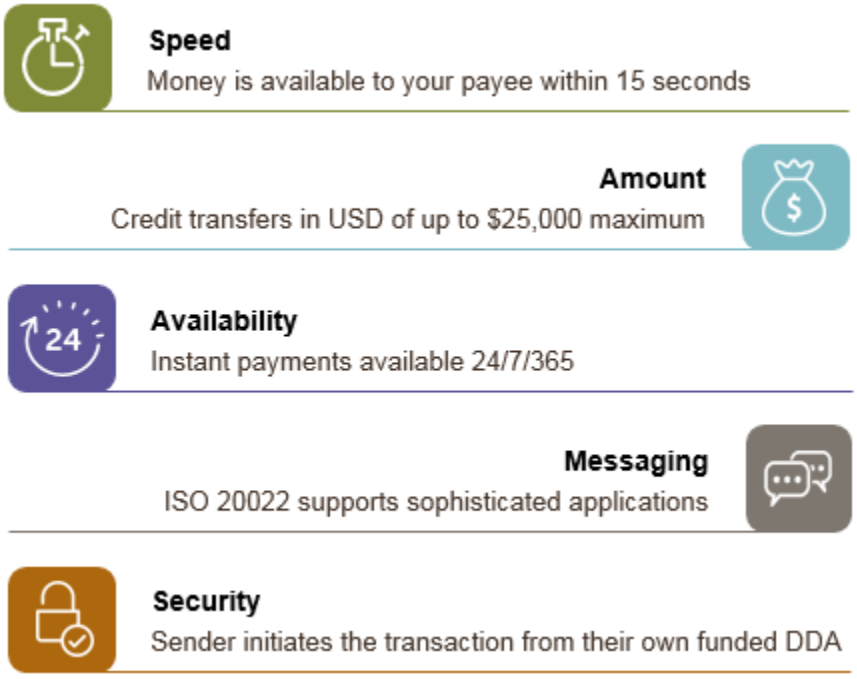


Figure 50.

An integrated offering

J.P. Morgan will offer the ability to send and receive Real-Time Payments through an application program interface (API), Corporate Quick Pay, Access Online and file transmission channels. Required information for onboarding and formats may vary based on the channel you choose.

- **J.P. Morgan Treasury Services API**: A machine-to-machine, web-enabled connection.
  - For secure authentication purposes, we will work with you to create and exchange a public certificate. The public certificate will be stored in our internal systems.
  - The City's system will also attach a digital signature to each API call as an added security measure.
  - API messages are based on JSON format.

- **Corporate Quick Pay (CQP)**: A business-to-consumer electronic payment service where J.P. Morgan clients can send their customers a payment offer via email or SMS text message.
  - The CQP portal is available through Access Online.
  - The City can initiate payment offers through online manual entry, CSV file upload or transmission.
  - Transmission file formats include ISO 20022, EDI X12, GFF and our proprietary fixed-length Corporate Quick Pay format.
- **Access Online and Mobile**: Our award-winning, global corporate cash management portal.
  - The City will be able to initiate payments through online manual entry or file upload into Access Online.
  - The City will be able to initiate payments using our mobile app that will require multi-factor authentication.
    - When using a device or browser that has not previously been used or if the browser's history has been cleared, the consumer will be required to request an identification code. This code is e-mailed to the user or sent to the registered cell phone and must be entered to provide access.
  - J.P. Morgan plans to offer Real-Time Payments via our online/mobile portals in 2019.
- **Access Host-to-Host**: Global electronic file transmissions for bulk payments.
  - Transmission file formats include ISO 20022, EDI X12 and GFF.
  - J.P. Morgan plans to offer Real-Time Payments via Host-to-Host in 2019.

The first available channels for Real-Time Payments, API and Corporate Quick Pay, are in pilot with other channels to follow later in 2019. Please note that product availability, features and functionality are subject to change.

Expanding the value proposition

This is only the beginning. Real-Time Payments are continuing to evolve to increase the business value they provide over time.

Early Warning Services

With Early Warning Services' advanced analytics, the City can mitigate fraud risk and operational investigations of bad account data by validating payee account information in real time before transaction initiation.

How the solution works

- Identifies open/valid accounts at point of transaction
- Verifies and matches account owner and account signatory
- Provides specific condition of that account (open, closed for cause, etc.)
- Provides immediate notification of high-risk payments

EARLY WARNING SERVICE BENEFITS

- Verifies that the account exists
- Determines account status
- Determines an account's associated risk
- Determines the likelihood of an item being returned
- Reduces unauthorized ACH transactions and administrative ACH returns
- Verifies account owner information (Account Owner Authentication)
- Does NOT provide account balances

CashFlow360SM

The payables and receivables processes of many organizations are fragmented and frustrating. Invoices are paper based, and approvals and reconciliation may be manual and time consuming. Perhaps the City's payables and receivables processes also experience these issues.

To optimize the City's payables and receivables process, we offer Chase Cashflow360SM.[4] Chase Cashflow360 (Cashflow360) makes it incredibly easy to send and receive payments electronically. It is a single, consolidated communication channel between businesses. A key driver of benefits is that Cashflow360 is seamlessly integrated into Chase Connect, J.P. Morgan's digital banking platform. This provides a more organized and efficient process for you.

With Cashflow360, the City will enjoy a seamless user experience that includes:

- Integration with our Chase Connect platform
- Unique product construct with Bill.com
- No forms to fill out
- Just three clicks in Chase Connect, and you are up and running

The City will have the ability to electronically send and receive:

STREAMLINED PAYMENTS AND COLLECTIONS

We have partnered with Bill.com, a payments industry leader that processes over $36 billion in annual payments and is actively growing their network of 2.5 million vendors—the largest available—to develop a streamlined payments solution.

4 Terms, conditions, limitations and fees apply, as described in the Chase CashFlow360SM Online Service Agreement.

- Payments
- Invoices
- Documents

Paper invoices and checks are also available for the City's counterparties not enrolled with Bill.com.

Cashflow360 provides your employees, customers and vendors with efficient digital workflows. You will spend 50 percent less time approving/paying bills leaving you more time to grow your business.[5]

How it Works

Cashflow360 is a browser-based solution based on Bill.com's system and network that is available through your J.P. Morgan online banking platform. It is an easy to implement solution that will already be linked to your profile and account information through our online banking platform. Just a few clicks and you are ready to use the solution.

Chase Cashflow360 process flow

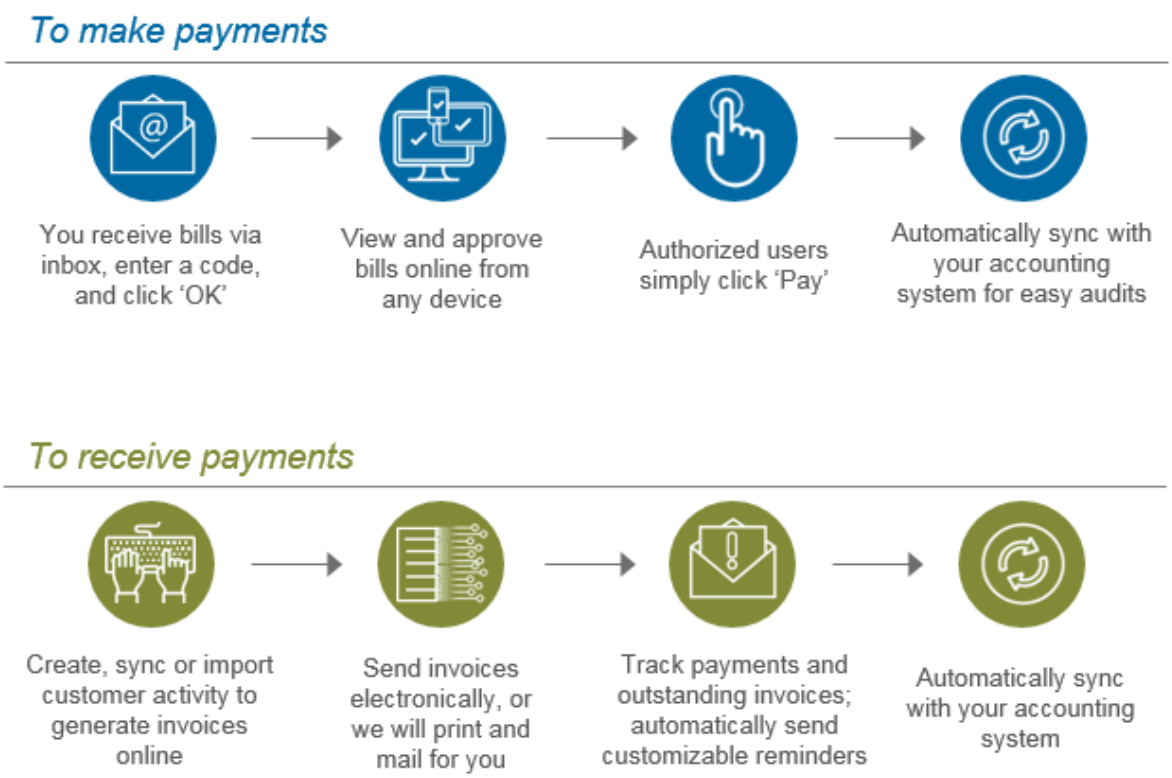


Figure 51.

5 As reported by Bill.com survey research with current Bill.com users.

Your current AP/AR processes likely involve multiple steps and can take days. You can now complete your AP/AR processes within minutes with just a few steps. The City will have the ability to make and/or receive payments from your dashboard. You will have the ability to add vendors to your network and manage your vendor relationships with just a couple of clicks.

Summary

Cashflow360 helps our clients like the City overcome a major pain point in the end-to-end bill payment and invoicing process. Our solution will reduce manual, inefficient, expensive and time-consuming processes.

Artificial Intelligence Services

To expedite collection of Accounts Receivable Check Conversion (ARC) and Back Office Conversion (BOC) transactions, the City can subscribe to ACH Artificial Intelligence (AI). AI is J.P. Morgan's proprietary database that monitors items for ACH eligibility, as well as Notification of Change (NOC) information to identify and correct transactions prior to submission.

AI offers two modules that can be used independently or in conjunction with each other:

ACH artificial intelligence (AI) modules	
Notice of change (NOC) database	**Ineligibility database**
Our industry-leading origination volumes provide extensive intelligence on administrative return information. • The scale of this data dramatically improves processing success, which results in higher ACH collection rates and reduced administrative returns. • Note that this module is also available for PPD and CCD SEC codes.	Increase the likelihood of successful payment collection through the ACH network on the first attempt while minimizing the number of items that clear as costly exception items. • To further enhance client service and automate the exclusion process, the City can omit customers that have opted out of ARC programs.

No cost services

In addition to our value-added services, J.P. Morgan strongly believes in delivering value without charging clients additional costs to use our services. The table below illustrates that commitment.

No cost services	
Alerts	Event notifications, including Payment Needs Repair, Transaction Completed, Balance Threshold, User Pending Approval, and many more (over 50) to help manage your accounts.
J.P. Morgan Access Insight	A fully integrated cash management tool using Microsoft Excel. Allows J.P. Morgan Access users to auto-populate their own spreadsheets with balances and transactions, as well as initiate payments from their spreadsheets.

No cost services	
J.P. Morgan Access Online transaction services	Provides seven years of wire details for both incoming and outgoing wires.
J.P. Morgan Access Online transaction services	Offers 15 months of historical ACH transaction information on all ACH-originated payments.
Access Mobile	Provides authorized Access Online users with mobile access to account activity. Also provides the ability to approve and release wire payments, manually add check issue or cancel records, and the ability to decision positive pay exceptions. The mobile app uses voice recognition as part of the authentication process, eliminating the need for a token.
J.P. Morgan Access support	The City is invited to join training webinars on J.P. Morgan Access. Our webinars are live, facilitator-led web conferences that include question and answer sessions that allow full participation between the audience and the presenter. You can register for training webinars via Access Online Support.
Online bank statements	Provides retention for seven years of bank statements.
ACH debit block email notification	Email notification accessible via mobile device. When a payment is returned as a result of a debit block, J.P. Morgan will send an email notification of the incident, allowing users to proactively contact their own customers.
File management	Email notifications provide up-to-the-minute status on receipt, delivery, availability, or failure of a file transmission.

EXHIBIT B
SCHEDULE OF FEES

Contractor will bill City on a monthly basis for Services provided by Contractor during the preceding month on an invoice and in a format approved by City and subject to verification and approval by City. City will pay Contractor within thirty (30) days of City's receipt of an approved invoice.

Pricing quoted herein is valid for 120 days from the date of this presentation

City of Santa Clara Pro Forma Analysis

May 2020
Request for Proposal
COMPREHENSIVE BANKING SERVICES

J.P.Morgan

Treasury Officer: ANDRE JOHNSON JR.
Banker: BEVERLY CORREA

ECR Rate: 0.3000%

Service Analysis*

Service Description	AFP	Number of Units	Unit Price	Charge For Service	Comments
ACCOUNT SERVICES					
105 - DAILY OVERDRAFT OCCURRENCE FEE	000212	0	$0.0000	$0.00	
1005 - ACCOUNT MAINTENANCE	010000	24	$5.0000	$120.00	
1006 - ACCT MAINT-INT	010010	0	$5.0000	$0.00	
1008 - ACCT MAINT-INT ADJ BAL	010010	0	$5.0000	$0.00	
1010 - STATEMENT CYCLES	010307	24	$0.0000	$0.00	
1014 - ACCOUNT STATEMENT - PAPER	010310	0	$10.0000	$0.00	
1017 - DUPLICATE PAPER STATEMENT	010310	40	$5.0000	$200.00	
1756 - ONLINE AUDIT CONFIRMATIONS		24			
		Flat	$25.0000	$25.00	
	010630	24		$25.00	
2315 - OVERDRAFT NSF ITEM RETURNED	150340	0	$5.0000	$0.00	
2316 - OVERDRAFT NSF ITEM PAID	150341	0	$5.0000	$0.00	
3499 - POST NO CHECKS MAINTENANCE	1500ZZ	0	$0.0000	$0.00	
7640 - CREDIT POSTED- ELECTRONIC	010101	791	$0.0200	$15.82	
7641 - DEBIT POSTED - ELECTRONIC	010100	101	$0.0200	$2.02	
7856 - CASH CONCENTRATION MAINTMASTER	010020	1	$5.0000	$5.00	
7857 - CASH CONCENTRATION MAINT SUB	010021	1	$5.0000	$5.00	
Subtotal				$372.84	
ACH PAYMENTS					
5149 - CQP ZELLE TRANSACTION	250101	0	$0.6500	$0.00	
Subtotal				$0.00	
AUTOMATED CLEARING HOUSE					
2695 - ACH MAINTENANCE	250000	4	$10.0000	$40.00	
2700 - CREDIT ORIGINATED	250101	4,080	$0.0200	$81.60	
2705 - DEBIT ORIGINATED	250100	8,888	$0.0200	$177.76	
2710 - DELETION / REVERSAL - MANUAL	250620	0	$20.0000	$0.00	
2716 - CREDIT RECEIVED	250201	757	$0.0200	$15.14	
2717 - DEBIT RECEIVED	250200	127	$0.0200	$2.54	
2720 - RETURN ITEM	250302	30	$1.0000	$30.00	
2722 - NOTIFICATION OF CHANGE	251070	0	$1.0000	$0.00	
2729 - RETURN NOTIFICATION - ONLINE	250400	94	$1.0000	$94.00	
2730 - NOTIF OF CHANGE - ONLINE	250400	30	$1.0000	$30.00	
2732 - ELOCKBOX FILE PROCESSING	259925	0	$5.0000	$0.00	
2740 - RETURN ITEM REDEPOSIT	250310	0	$1.0000	$0.00	
2742 - CREDIT ORIGINATED - JPM ACCESS	250101	45	$0.0700	$3.15	
2744 - DEBIT ORIGINATED - JPM ACCESS	250100	0	$0.0700	$0.00	
2746 - JPM ACCESS ACH MAINTENANCE	250000	3	$10.0000	$30.00	
2751 - ELOCKBOX RETURN - ELECTRONIC	250302	7	$1.0000	$7.00	
2752 - ELOCKBOX NOC - ELECTRONIC	251070	0	$1.0000	$0.00	
2753 - DELETION / REVERSAL - ELEC	250620	1	$2.0000	$2.00	
2765 - ACH BATCH/FILE PROCESSED	250501	28	$4.0000	$112.00	
2796 - ADDENDA RECORD ORIGINATED	250120	0	$0.0300	$0.00	
2809 - NOTIF OF CHANGE - EMAIL	251070	0	$1.0000	$0.00	
2810 - RETURN NOTIFICATION - EMAIL	250400	0	$1.0000	$0.00	
2814 - NOTIF OF CHANGE - TRANSM	251070	0	$1.5000	$0.00	
2818 - RETURN NOTIFICATION - TRANSM	250400	0	$2.2500	$0.00	
2860 - TRANSACTION BLOCK MAINTENANCE	251050	14	$3.0000	$42.00	
2861 - ACH TRANS BLOCK AUTHORIZED ID	251051	54	$0.1000	$5.40	
5159 - CQP CLIENT PROGRAM MAINTENANCE	250000	0	$100.0000	$0.00	
5160 - CQP TRANS DECLINE/EXPIRE	250101	0	$0.1500	$0.00	
5161 - CQP TRANS ACCEPTED	250101	0	$0.4000	$0.00	
5489 - ELOCKBOX MAINTENANCE	050030	1	$20.0000	$20.00	
5490 - ELOCKBOX TRANSACTION RECEIVED	050300	5,386	$0.0300	$161.58	
5491 - ELOCKBOX TRANSACTION REFORMAT	050311	0	$0.0000	$0.00	
5493 - ELOCKBOX ADDENDA RECEIVED	250220	0	$0.0200	$0.00	
5497 - ELOCKBOX TRN REPAIR MAINT	999999	0	$0.0000	$0.00	
5498 - ELOCKBOX TRN REPAIR ITEM EDIT	999999	0	$0.0400	$0.00	
8019 - ACH ORIGINATED SAME DAY CREDIT	250101	0	$0.2500	$0.00	
8020 - ACH ORIGINATED SAME DAY DEBIT	250100	0	$0.2500	$0.00	
8021 - ACCESS ACH CREDIT - SAME DAY	250101	0	$0.5000	$0.00	
8022 - ACCESS ACH DEBIT - SAME DAY	250100	0	$0.5000	$0.00	
8023 - ACH UNAUTHORIZED ENTRY FEE	250312	3	$4.0000	$12.00	
Subtotal				$866.17	
BANKING CENTER SERVICES					
1306 - BRANCH CREDITS POSTED	100000	0	$2.5000	$0.00	
1311 - ATM CHECK DEPOSIT - IMAGE	100000	0	$0.0000	$0.00	
1312 - ATM CASH DEPOSIT - IMAGE	100000	0	$0.0000	$0.00	
1318 - BRANCH ORDER - COIN ROLL	100044	0	$0.1000	$0.00	
1319 - BRANCH ORDER CURRENCY STRAP	10004A	0	$0.4000	$0.00	
1320 - BRANCH DEPOSIT IN NON STD BAG	100099	0	$2.0000	$0.00	
1332 - BRANCH DEPOSIT ADJUSTMENT	100500	0	$0.0000	$0.00	
1333 - BRANCH ORDER PROCESSED	100040	0	$3.0000	$0.00	
7173 - NIGHT DROP CASH VERIFICATION	100000	0	$0.0015	$0.00	
7174 - TELLER LINE CASH VERIFICATION	100000	0	$0.0035	$0.00	
Subtotal				$0.00	
DEPOSITORY SERVICES					
501 - CHECK DEPOSITED-ON US	100220	0	$0.0500	$0.00	
513 - CHECK DEPOSITED-TRANSIT	100224	0	$0.1000	$0.00	
519 - IMAGE GROUP ONE	100214	1,830	$0.0370	$67.71	
520 - ON-US STANDARD	100210	575	$0.0250	$14.38	
521 - IRD PERIOD ONE	100214	1	$0.1000	$0.10	
524 - FILE TRANSMISSION REC.- VPN	100210	1	$100.0000	$100.00	
526 - IMAGE GROUP TWO	100214	2,540	$0.0270	$68.58	
528 - IMAGE GROUP TWO - TIER 2	100214	1,898	$0.0300	$56.94	
541 - REMOTE DEPOSIT CAPTURE ITEM	101320	2,604	$0.0500	$130.20	
548 - REMOTE DEPOSIT CAPTURE MAINT	101300	4	$5.0000	$20.00	
704 - DEPOSIT CORRECTION	100230	0	$5.0000	$0.00	
746 - ON US PREMIUM	100210	442	$0.0500	$22.10	
748 - ICL DEPOSIT LATE	100200	0	$2.0000	$0.00	
751 - IMAGE GROUP ONE - PERIOD TWO	100214	457	$0.0550	$25.14	
752 - IMAGE GROUP ONE - PERIOD THREE	100214	0	$0.1200	$0.00	
756 - ICL DEPOSIT STANDARD	100200	0	$1.5000	$0.00	
757 - IMAGE QUALITY SUSPECT ITEMS	999999	40	$0.2500	$10.00	
758 - NON-CONFORMING IMAGE ITEMS	999999	1	$5.0000	$5.00	
759 - ICL DEPOSIT EARLY	100200	61	$1.0000	$61.00	
1390 - REMOTE DEPOSIT CAPTURE MOBILE	101300	0	$1.0000	$0.00	

1400 - CREDITS POSTED	010101	61	$0.3000	$18.30
1435 - RETURN ITEM	100400	14	$4.0000	$56.00
1446 - RETURN IMAGE	100415	0	$1.0000	$0.00
1448 - RETURN DETAIL REPORTING	100411	0	$0.3000	$0.00
1449 - RETURN SINGLE ITEM ADVICE	100401	4	$2.0000	$8.00
1450 - RETURN ITEM REDEPOSIT	100402	4	$3.0000	$12.00
Subtotal				$675.45
DISBURSEMENT SERVICES				
1321 - CHECK CASHING NON-ACCT HOLDER	150501	12	$4.0000	$48.00
2205 - CONTROLLED DISB ACCT MAINT	150000	0	$50.0000	$0.00
2210 - CONTROLLED DISB CHECK POSTED	150110	0	$0.1000	$0.00
2320 - STOP PAYMENT - MANUAL	150420	0	$15.0000	$0.00
2321 - RANGE STOP PAYMENT-ELECTRONIC	150410	0	$50.0000	$0.00
2322 - RANGE STOP PAYMENT-MANUAL	150421	0	$150.0000	$0.00
2338 - STOP PAYMENT AUTOMATIC RENEWAL	150412	0	$1.0000	$0.00
2370 - CHECK / DEBIT POSTED	010100	1,101	$0.0800	$88.08
3470 - CHECK PRINT MAINTENANCE	150040	0	$30.0000	$0.00
3472 - CHECK PRINT PER ITEM	151810	0	$0.3000	$0.00
3474 - CHECK PRINTING STMT PRINT	151830	0	$0.5000	$0.00
3475 - CHECK PRINTING ADDL PAGE	151830	0	$0.0900	$0.00
3476 - CHECK PRINT MANUAL PULL	151820	0	$25.0000	$0.00
3487 - CHECK PRINT POSTAGE	151850	0	$0.4139	$0.00
3495 - IMAGE STORAGE PER ITEM	151351	1,176	$0.0200	$23.52
5234 - CONTROLLED DISB FUNDING	010112	0	$0.5000	$0.00
6618 - CHECK INQUIRY MAINTENANCE		11	$20.0000	$220.00
	151710	11		$220.00
6620 - RECON REPORT / STATEMENT MAINT	200306	8	$0.0000	$0.00
6621 - IMAGING MAINTENANCE	151350	10	$0.0000	$0.00
6625 - EXCEPTION NOTIFICATION - ACCT	150030	8	$5.0000	$40.00
6639 - STOP PAYMENT - ELECTRONIC	150410	0	$2.0000	$0.00
6641 - DATA DOWNLOAD	200306	0	$20.0000	$0.00
6644 - ISSUE INPUT UPLOAD	200201	0	$1.0000	$0.00
6645 - IMAGE RETRIEVAL PER RETRIEVE	151352	0	$1.0000	$0.00
6646 - IMAGE RETRIEVAL >91DAY	151352	0	$2.0000	$0.00
7772 - CHECK PRINT ONLINE MAINT	150040	0	$25.0000	$0.00
7773 - CHECK PRINT FILE UPLOAD	151800	0	$5.0000	$0.00
Subtotal				$419.60
INT REC & PAY - CONNECT				
5586 - MAINTENANCE - ONLINE	999999	0	$100.0000	$0.00
Subtotal				$0.00
INT REC & PAY - REPORT				
6179 - RECEIVABLES MAINT - ONLINE	050005	5	$25.0000	$125.00
6187 - LONG TERM STORAGE - CHECK	050620	2,604	$0.0150	$39.06
6188 - LONG TERM STORAGE - DOCUMENT	050620	0	$0.0150	$0.00
6191 - ALERTS - PER ALERT	011021	0	$0.0000	$0.00
6198 - RECEIVABLES MAIN - REPORTS	05031Z	0	$0.0000	$0.00
6844 - RECEIVABLES PRESENTMENT MAINT	409999	0	$60.0000	$0.00
6846 - LONG TERM STORAGE - PAYMENT	050620	0	$0.0300	$0.00
6852 - TRANSMISSION MAINT - DATA	050400	0	$100.0000	$0.00
6853 - TRANSMISSION PER ITEM - DATA	050401	0	$0.0300	$0.00
Subtotal				$164.06
JPMORGAN ACCESS				
6040 - MONTHLY SERVICE	400610	1	$25.0000	$25.00
6041 - ACCOUNTS REPORTED	40044Z	24	$12.5000	$300.00
6043 - TRANSACTIONS REPORTED - 45 DAY	40066Z	0	$0.0200	$0.00
6045 - TRANSACTIONS REPORTED - 1 YEAR	40066Z	0	$0.0700	$0.00
6051 - TRANSACTIONS REPORTED - 2 YEAR	40066Z	9,695	$0.0200	$193.90
6053 - EXTENDED TRANSACTION DETAIL	40066Z	29,085	$0.0000	$0.00
6076 - ACCT TRANSFER ITEM	400699	1	$1.0000	$1.00
Subtotal				$519.90
LIQUIDITY SERVICES				
7848 - MONEY MKT FUND EOD SWEEP-MAINT	450020	0	$25.0000	$0.00
7849 - INVESTMENT SWEEP - MAINT	450020	0	$25.0000	$0.00
7850 - INTRADAY MONEY MKT FUND SWEEP	450020	0	$25.0000	$0.00
Subtotal				$0.00
RECONCILIATION SERVICES				
3209 - PARTIAL RECONCILEMENT - MAINT	200020	8	$10.0000	$80.00
3210 - PARTIAL RECONCILIATION-PER ITM	200120	1,084	$0.0200	$21.68
3228 - PAYEE NAME VERIFICATION	150122	0	$0.0150	$0.00
3262 - POSITIVE PAY MAINTENANCE	150030	14	$0.0000	$0.00
3263 - EXCEPTION ITEM	150300	4	$1.0000	$4.00
3268 - PP NON RECON MAINTENANCE	150030	6	$10.0000	$60.00
3269 - ISSUE INPUT WITHOUT RECON	200201	0	$1.0000	$0.00
3270 - POS PAY WITHOUT RECON ITEMS	150120	73	$0.0000	$0.00
3271 - ISSUE INPUT FILE WITH RECON	200201	4	$1.0000	$4.00
3272 - CHECK EXCEPTION RETURN	150320	3	$5.0000	$15.00
3291 - OUTPUT FILE	200301	8	$5.0000	$40.00
3293 - EXCESSIVE ARP REJECTS	200210	0	$0.1500	$0.00
3294 - DATA ENTRY - MANUAL	200210	0	$2.5000	$0.00
3372 - ADDITIONAL RECONCILIATION	200325	0	$30.0000	$0.00
3373 - DUPLICATE REPORT	200325	0	$0.0000	$0.00
3376 - ARP CUSTOM REPORT	200324	0	$35.0000	$0.00
3386 - IMAGE CAPTURE PER ITEM	151351	1,176	$0.0200	$23.52
Subtotal				$248.20
VAULT SERVICES				
1310 - VAULT DEPOSIT	100100	48	$1.0000	$48.00
1459 - VAULT DEPOSIT PER $1,000	10011Z	147	$0.4000	$58.80
1467 - VAULT MAINTENANCE	100199	1	$0.0000	$0.00
1468 - VAULT EMAIL NOTIFICATION	100154	0	$0.5000	$0.00
1475 - VAULT DEPOSIT ROLLED COIN	100110	0	$0.2000	$0.00
1476 - VAULT ORDER COIN ROLLS	100144	0	$0.1000	$0.00
1477 - VAULT ORDER - COIN ROLL BOX	100146	0	$0.0800	$0.00
1479 - VAULT ORDER COIN BAG LOOSE	100147	0	$3.0000	$0.00
1482 - VAULT DEPOSIT STD STRAP - NOTE	100115	7,840	$0.0000	$0.00
1485 - VAULT NOTE-SPECIALIZED	100115	0	$0.0025	$0.00
1486 - VAULT DEP NON STD STRAP - NOTE	100114	1,960	$0.0000	$0.00
1493 - VAULT DEPOSIT IN NON STD BAG	100199	0	$1.0000	$0.00
1495 - VAULT STANDARD ORDERS	100141	0	$2.0000	$0.00
1497 - VAULT ORDER CURRENCY STD STRAP	10014A	0	$0.4000	$0.00
1498 - VAULT EXPEDITED SPECIAL ORDERS	100143	0	$25.0000	$0.00
1499 - VAULT ORDER CURR NON STD STRAP	100148	0	$0.0100	$0.00
1506 - VAULT DEP PARTIAL OR MIXED BAG	100111	1	$3.7500	$3.75
1525 - VAULT DEPOSIT STD COIN BAG	100113	0	$1.5000	$0.00
1535 - VAULT ENVELOPE DEPOSIT VERIF	100104	0	$1.0000	$0.00
1617 - VAULT DEPOSIT ADJUSTMENT	100501	3	$5.0000	$15.00
1620 - SMART SAFE MAINTENANCE	100199	0	$50.0000	$0.00
1621 - SMART SAFE ADVANCED CREDIT	100199	0	$5.0000	$0.00
1623 - REMOTE CASH CAPTR DEP PER $1K	100199	0	$0.0000	$0.00

	1624 - WEB CUR SVCS-DEPOSIT DETAILS	100199	0	$1.0000	$0.00	
	1627 - WEB CUR SVC-VAULT TREND REPORT	100199	0	$2.0000	$0.00	
	Subtotal				$125.55	
	WIRE - U.S.					
	5464 - OUTGOING WIRES	350120	0	$0.0000	$0.00	
	5466 - INCOMING WIRES	350320	0	$0.0000	$0.00	
	5822 - ELECTRONIC BOOK DEBIT S/T	350124	4	$4.0000	$16.00	
	5823 - ELECTRONIC BOOK DEBIT REPAIR	350122	0	$5.0000	$0.00	
	5824 - ELECTRONIC FED DEBIT S/T	350100	26	$5.0000	$130.00	
	5825 - ELECTRONIC FED DEBIT REPAIR	350102	0	$6.0000	$0.00	
	5826 - ELECTRONIC CHIP DEBIT S/T	350110	1	$5.0000	$5.00	
	5827 - ELECTRONIC CHIP DEBIT REPAIR	350541	0	$6.0000	$0.00	
	5841 - BANK INITIATED BOOK DEBIT	350220	0	$500.0000	$0.00	
	5842 - BANK INITIATED FED DEBIT	350220	0	$500.0000	$0.00	
	5886 - BOOK CREDIT	350320	1	$3.0000	$3.00	
	5887 - FED CREDIT S/T	350300	25	$4.0000	$100.00	
	5888 - FED CREDIT REPAIR	350330	0	$5.0000	$0.00	
	5889 - CHIPS CREDIT S/T	350300	2	$4.0000	$8.00	
	5890 - CHIPS CREDIT REPAIR	350330	0	$5.0000	$0.00	
	5927 - MAIL DEBIT ADVICE	350412	0	$5.0000	$0.00	
	5928 - MAIL CREDIT ADVICE	350412	1	$5.0000	$5.00	
	5961 - DRAWDOWN FED DEBIT	350521	3	$18.0000	$54.00	
	5978 - ESERVE INVESTIGATION	350560	0	$0.0000	$0.00	
	5979 - ESERVE INQUIRY CONFIRMATIONS	350560	0	$0.0000	$0.00	
	5985 - ACCOUNT MAINTENANCE	350000	1	$0.0000	$0.00	
	Subtotal				$321.00	
	IMPLEMENTATION FEES					
**	2714 - ACH IMPLEMENTATION-DIRECT SEND	251000	0	$1,000.0000	$0.00	Initial implementation fee to be covered by transition credits
**	5488 - ELOCKBOX IMPLEMENTATION	251000	1	$500.00	$0.00	Initial implementation fee to be covered by transition credits
	Total Charge for Services				**$3,712.77**	**$22,586,017.50**

* Volumes and Balances on this Pro Forma are estimated. Actual volumes and balances may be different, which will result in different charges than are specified above.

** Denotes Service is a one-time charge and will not appear on customer statement on a monthly basis.

EXHIBIT C
INSURANCE REQUIREMENTS

Without limiting the Contractor's indemnification of the City, and prior to commencing any of the Services required under this Agreement, the Contractor shall provide and maintain in full force and effect during the period of performance of the Agreement and for twelve (12) months following acceptance by the City, at its sole cost and expense, the following insurance policies from insurance companies authorized to do business in the State of California. These policies shall be primary insurance as to the City of Santa Clara so that any other coverage held by the City shall not contribute to any loss under Contractor's insurance. The minimum coverages, provisions and endorsements are as follows:

A. COMMERCIAL GENERAL LIABILITY INSURANCE

Commercial General Liability Insurance policy which provides coverage at least as broad as Insurance Services Office form CG 00 01. Policy limits are subject to review, but shall in no event be less than, the following:

$2,000,000 Each Occurrence
$4,000,000 General Aggregate
$2,000,000 Products/Completed Operations Aggregate
$1,000,000 Personal Injury

Exact structure and layering of the coverage shall be left to the discretion of Contractor; however, any excess or umbrella policies used to meet the required limits shall be at least as broad as the underlying coverage and shall otherwise follow form.

The following provisions shall apply to the Commercial Liability policy as well as any umbrella policy maintained by the Contractor to comply with the insurance requirements of this Agreement:

Coverage shall be on a "pay on behalf" basis with defense costs payable in addition to policy limits;

There shall be no cross liability exclusion which precludes coverage for claims or suits by one insured against another; and

Coverage shall apply separately to each insured against whom a claim is made or a suit is brought, except with respect to the limits of liability.

B. BUSINESS AUTOMOBILE LIABILITY INSURANCE

Business automobile liability insurance policy which provides coverage at least as broad as ISO form CA 00 01 with policy limits a minimum limit of not less than one million dollars ($1,000,000) each accident using, or providing coverage at least as broad as, Insurance Services Office form CA 00 01. Liability coverage shall apply to all owned (if any), non-owned and hired autos.

In the event that the Work being performed under this Agreement involves transporting of hazardous or regulated substances, hazardous or regulated wastes and/or hazardous or regulated materials, Contractor and/or its subcontractors

involved in such activities shall provide coverage with a limit of one million dollars ($1,000,000) per accident covering transportation of such materials by the addition to the Business Auto Coverage Policy of Environmental Impairment Endorsement MCS90 or Insurance Services Office endorsement form CA 99 48, which amends the pollution exclusion in the standard Business Automobile Policy to cover pollutants that are in or upon, being transported or towed by, being loaded onto, or being unloaded from a covered auto.

C. WORKERS' COMPENSATION

Workers' Compensation Insurance Policy as required by statute and employer's liability with limits of at least one million dollars ($1,000,000) policy limit Bodily Injury by disease, one million dollars ($1,000,000) each accident/Bodily Injury and one million dollars ($1,000,000) each employee Bodily Injury by disease.

The indemnification and hold harmless obligations of Contractor included in this Agreement shall not be limited in any way by any limitation on the amount or type of damage, compensation or benefit payable by or for Contractor or any subcontractor under any Workers' Compensation Act(s), Disability Benefits Act(s) or other employee benefits act(s).

This policy must include a Waiver of Subrogation in favor of the City of Santa Clara, its City Council, commissions, officers, employees, volunteers and agents.

D. PROFESSIONAL LIABILITY

Professional Liability or Errors and Omissions Insurance as appropriate shall be written on a policy form coverage specifically designed to protect against negligent acts, errors or omissions of the Contractor. Covered services as designated in the policy must specifically include work performed under this agreement. Coverage shall be in an amount of not less than one hundred twenty-five million dollars ($125,000,000) per claim and in aggregate.

E. COMPLIANCE WITH REQUIREMENTS

All of the following clauses and/or endorsements, or similar provisions, must be part of each commercial general liability policy, and each umbrella or excess policy.

Additional Insureds. City of Santa Clara, its City Council, commissions, officers, employees, volunteers and agents are hereby included as additional insureds in respect to liability arising out of Contractor's work for City.

Primary and non-contributing. Each insurance policy provided by Contractor shall contain language or be endorsed to contain wording making it primary insurance as respects to, and not requiring contribution from, any other insurance which the indemnities may possess, including any self-insurance or self-insured retention they may have. Any other insurance indemnities may possess shall be considered excess insurance only and shall not be called upon to contribute with Contractor's insurance.

Cancellation.

Each insurance policy shall contain language or be endorsed to reflect that no cancellation or modification of the coverage provided due to non-payment of premiums shall be effective until written notice has been given to City at least ten (10) days prior to the effective date of such modification or cancellation. In the event of non-renewal, written notice shall be given at least ten (10) days prior to the effective date of non-renewal.

Each insurance policy shall contain language or be endorsed to reflect that no cancellation or modification of the coverage provided for any cause save and except non-payment of premiums shall be effective until written notice has been given to City at least thirty (30) days prior to the effective date of such modification or cancellation. In the event of non-renewal, written notice shall be given at least thirty (30) days prior to the effective date of non-renewal. Contractor will endeavor to send notice to City for cancellation or if modifications to the policy are below the minimum requirements of this contract.

Other Endorsements. Other endorsements may be required for policies other than the commercial general liability policy if specified in the description of required insurance set forth in Sections A through E of this Exhibit C, above.

F. ADDITIONAL INSURANCE RELATED PROVISIONS

Contractor and City agree as follows:

Contractor agrees to ensure that subcontractors, and any other party involved with the Services, who is brought onto or involved in the performance of the Services by Contractor, provide the same minimum insurance coverage required of Contractor, except as with respect to limits. Contractor agrees to monitor and review all such coverage and assumes all responsibility for ensuring that such coverage is provided in conformity with the requirements of this Agreement. Contractor agrees that upon request by City, all agreements with, and insurance compliance documents provided by, such subcontractors and others engaged in the project will be submitted to City for review.

Contractor agrees to be responsible for ensuring that no contract used by any party involved in any way with the project reserves the right to charge City or Contractor for the cost of additional insurance coverage required by this Agreement. Any such provisions are to be deleted with reference to City. It is not the intent of City to reimburse any third party for the cost of complying with these requirements. There shall be no recourse against City for payment of premiums or other amounts with respect thereto.

The City reserves the right to withhold payments from the Contractor in the event of material noncompliance with the insurance requirements set forth in this Agreement.

G. EVIDENCE OF COVERAGE

Prior to commencement of any Services under this Agreement, Contractor, and each and every subcontractor (of every tier) shall, at its sole cost and expense, provide and maintain not less than the minimum insurance coverage with the

endorsements indicated in this Agreement. Such insurance coverage shall be maintained with insurers, and under forms of policies, satisfactory to City and as described in this Agreement. Contractor shall file with the City all certificates and endorsements for the required insurance policies for City's approval as to adequacy of the insurance protection.

H. EVIDENCE OF COMPLIANCE

Contractor or its insurance broker shall provide the required proof of insurance compliance, consisting of Insurance Services Office (ISO) endorsement forms or their equivalent and the ACORD form 25-S certificate of insurance (or its equivalent), evidencing all required coverage shall be delivered to City, or its representative as set forth below, at or prior to execution of this Agreement. Unless otherwise required by the terms of this Agreement, all certificates, endorsements, coverage verifications and other items required to be delivered to City pursuant to this Agreement shall be mailed to:

EBIX Inc.
City of Santa Clara Finance Department
P.O. Box 100085 – S2
Duluth, GA 30096
Telephone number: 951-766-2280
Fax number: 770-325-0409
Email address: ctsantaclara@ebix.com

I. QUALIFYING INSURERS

All of the insurance companies providing insurance for Contractor shall have, and provide written proof of, an A. M. Best rating of at least A minus 6 (A- VI) or shall be an insurance company of equal financial stability that is approved by the City or its insurance compliance representatives.

Document Checklist | **JPMORGAN CHASE BANK, N.A.**

11 June 2020
City of Santa Clara
1500 WARBURTON AVE
SANTA CLARA, CA 950503713
USA

Thank you for choosing JPMorgan Chase for your banking needs. Below is a list of documents contained in this package that pertain to the products and/or services you have requested, with instructions for each document.

In striving to deliver best-in-class service, we encourage you to complete and return any of the attached documentation requiring signature within **5 business days** from the day you receive this package. Please let us know if there is any way we can assist you. We understand that on occasion this timeline cannot be met due to other priorities, the complexity of requirements, and/or the availability of authorized signatories. In such cases we kindly ask that you advise us when we can anticipate receipt of the documentation or if there is any additional support we can provide. Timely receipt of the documents enables us to better complete your request in the desired timeframe.

For your protection, where documents in this package are being sent as e-mail attachments and have been pre-filled, the account and/or SSN/TIN number has been truncated to the last 4 digits, or the documents have been encrypted and may require a password to open.

We at JPMorgan Chase are fully committed to meeting your banking needs. We are happy to answer any questions you may have regarding the attached documents. If you need assistance, please do not hesitate to call.

Kind regards,

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	Document Name	ID	Instructions
☐	Consolidated Service Terms for Commercial Bank and Dealer Commercial Services	1	For Reference Only

V4.9_1_31_19

Consolidated Service Terms

J.P. Morgan Chase provides an array of treasury services to meet your business needs. This booklet contains important information about J.P. Morgan Chase solutions that we provide. If you would like to add a service that is covered in this booklet, please contact your Commercial Banking Representative

TREASURY SERVICES (United States)
Commercial Bank

Welcome to JPMorgan Chase Bank, National Association ("J.P. Morgan", "Chase", or "Bank"). We are pleased that you have decided to maintain a banking relationship with us. This Consolidated Service Terms booklet ("Booklet") contains the terms and conditions for certain cash management services ("Service Terms") J.P. Morgan may provide to you. By executing the Account Terms Acceptance Letter, Certificate Regarding Accounts, Business Signature Card, service implementation form or similar document, or by using or continuing to use any of the services referenced herein after receipt of this Booklet, you agree that the Service Terms included in this Booklet, in addition to the Account Terms and such supplements, amendments, notices and additional service terms provided to you from time to time will govern your existing and future deposit accounts maintained with us, in addition to those services that the Bank provides to you, as applicable.

This Booklet includes Treasury Services Service Terms applicable to all Commercial Banking customers. All Service Terms are subject to the Bank's Account Terms. Any modifications to this Booklet, including but not limited to any changes, amendments, deletions, and/or additions, will not be binding upon the Bank unless such modifications are acknowledged and agreed to it writing by an officer of JPMorgan Chase.

We look forward to serving your business needs and thank you again for choosing Chase.

SERVICES FOR CUSTOMERS

A. ACH Origination

B. ACH Transaction Blocking & ACH Transaction Review

C. Lockbox

D. Coin & Currency

E. Positive Pay, Reverse Positive Pay and Payee Verification

F. Controlled Disbursements

G. Image Cash Letter

H. Check Print

I. ACH Tax Payment

J. Virtual Remit Service Terms

K. Electronic Channels

Service Terms – Consolidated Service Terms Booklet

The services described herein (each a "Service") are subject to the Bank's Account Terms (as may be amended from time to time), which are hereby incorporated by reference into each Service Terms. By using any of the Services described hereunder, the Customer acknowledges that it has received and agreed to the Account Terms, as supplemented by these Service Terms. Capitalized terms in the Service Terms, unless otherwise defined herein, shall have the meanings set forth in the Account Terms

A. ACH ORIGINATION

The Automated Clearing House (ACH) is a batch processing payment system that U.S. banks use to exchange and settle credit and debit transactions on behalf of their clients or themselves. The origination of ACH Entries and the transmission and issuance of related transactions and information will be pursuant to these terms and the Operating Rules and Guidelines (collectively the "Rules") of the National Automated Clearing House Association. Capitalized terms used in this subpart, unless otherwise defined in this subpart shall have the same meanings as set forth in the Rules. The Customer and the Bank agree to comply with and be bound by the Rules as in effect from time to time, including without limitation, the provision making payment of a Credit Entry by an RDFI to the Receiver provisional until receipt by the RDFI of final settlement for such Credit Entry and the Customer acknowledges that it has received notice of such rule and of the fact that if such settlement is not received, the RDFI will be entitled to a refund from the Receiver of the amount credited and the Customer will not be deemed to have paid the Receiver the amount of such Credit Entry.

1. Service. Bank provides automated clearing house ("ACH") origination services that will enable Customer to do one or more of the following:

- originate ACH Debit Entries;
- originate ACH Credit Entries; and
- instruct the Bank to issue or transmit prenotifications, reversals, requests for return, notifications of change or other information pertaining to the Entries.

Origination of ACH Credit Entries and origination of ACH Debit Entries are two separate services and approval or set up for one ACH service does not automatically create the ability to utilize the other. The Rules and these Service Terms shall apply to all Entries, whether or not transmitted through an ACH Operator.

It is Customer's responsibility to provide Entries and instructions to Bank with all the necessary information to complete Customer's requested transactions. Customer agrees to transmit Entries to Bank in the manner, at the times and in accordance with approved media, content and format as agreed by Bank and Customer. Bank may reject or delay processing transactions or information if instructions are not complete or are inaccurate, contain an inactive Company ID or otherwise do not meet the criteria Bank specifies for acceptance. All requests to Bank must be received by Bank before Bank's established cut-off time in order for processing to commence on that ACH processing day. Any request that is incomplete or that Bank finishes receiving after the relevant cut-off time will be processed by Bank on the next day Bank processes ACH transactions. All transactions are subject to acceptance by Bank. Bank will notify Customer of any transactions or other transmissions that are rejected or returned. If Customer wants Bank to re-process those transactions or transmissions, Customer must correct them and re-submit them. Customer agrees to furnish Bank with copies of any authorizations or notifications, if requested, as well as any other information reasonably requested by Bank relating to Entries originated by the Customer. Customer shall provide Bank's auditors and other personnel with reasonable access at all reasonable times to the Customer's facilities, data and records relating to the initiation of Entries for the purpose of auditing Customer's compliance with these Service Terms and the Rules.

2. Security and Data Protection Procedures. All instructions received by Bank in Customer's name are subject to verification pursuant to mutually agreed security procedures. If Bank follows those procedures, Bank may process and transmit transactions or information in Customer's name**.** Unless Customer and Bank both otherwise agree, transmissions to Bank will be authenticated and/or encrypted using commercially reasonable security technologies meeting standards acceptable to Bank. If Customer uses a security procedure other than as described above, Customer acknowledges that Customer refused Bank's security procedure and chose another and Customer agrees to be bound by any transaction, whether or not authorized, issued in Customer's name and accepted by Bank in compliance with the security procedure Customer chose. If Customer elects not to utilize recommended message authentication and/or encryption technology, Customer assumes all responsibility for unauthorized disclosure or unauthorized access to Customer's data that occurs during transmission or while such data is in storage. Customer shall not disclose any Receiver's account number or routing number to any third party for such third party's use, directly or indirectly, in initiating a separate Debit.

3. Settlement and Exposure Limits. On the settlement date, Bank will credit Customer's account with Bank that Customer specifies for the total of:

- Customer's Debit Entries that Bank processed for settlement that day;
- RCCs issued for deposit to Customer's account on that day; and
- any returned or reversed Credit Entries.

Bank may delay the availability of funds deposited into Customer's account by Debit Entry or RCC until those transactions cannot be reversed in accordance with the Rules or applicable law.

Bank will debit Customer's account with Bank that Customer specifies for the total of Credit Entries processed in Customer's name and for any returned Debit Entries and RCCs. Bank may require Customer to pay Bank the amount of any Credit Entries on the date of transmission to Bank or otherwise prior to the settlement date. Bank also may require Customer to maintain collateral with Bank in an amount Bank specifies.

Bank may from time to time establish or revise maximum dollar limits for the total value of all outstanding files of Credit Entries and/or Debit Entries and RCCs that Bank will release on Customer's behalf. Bank may change or cancel the limits at any time without prior notice to Customer; although Bank will try to notify Customer before Bank does that.

4. **Warranties; Indemnity.** Except as specified below, Customer will be deemed to make the same warranties to Bank as Bank makes pursuant to the Rules. In the case of an Entry to another account with Bank, warranties will be deemed to be given as of the time Bank first processes the Entry. Customer will not be deemed to warrant the power of the Bank under applicable law to comply with the requirements of the Rules or the conformity of Entries and other data Bank transmits to the file specifications contained in the Rules. The Customer further represents, warrants and covenants that (a) each Entry and RCC it originates will comply with all applicable U.S. laws and regulations and acknowledges that Entries may not be initiated that violate the laws of the United States, (b) unless Customer has identified itself to Bank as a Third Party Sender (as defined in Section 7) and obtained Bank's express consent to originate Entries as a Third Party Sender, Customer will not originate any Entries, or use any of its Company IDs to originate Entries, on behalf of third parties (including, without limitation, any affiliate of Customer), and (c) Customer will not permit a third party to originate Entries using a Customer account as the offset account unless Customer obtains Bank's express consent to do so.

   Customer agrees to indemnify Bank and Bank's employees, officers, directors and agents, and hold all of them harmless from and against any and all claims, demands, losses, liabilities or expenses (including attorneys' fees and costs) resulting directly or indirectly from (a) Customer's breach of any warranty made under these Service Terms and (b) compliance by Bank and the RDFI with any request Customer makes for a cancellation, stop payment, reversal or recall of any Entry or any RCC created by Bank under Section 1 hereof.

   Bank shall have no responsibility for any delay by any ACH Operator or RDFI in processing any Entry the Bank transmits to the ACH Operator or failure to process or credit or debit any such Entry.

5. **Stop Payments; Reversals and Recalls; Rejections.** Customer's instruction to cancel, stop payment of, reverse or recall one or more Entries must be received by Bank in such time and manner as Bank specifies. Bank will process these transactions in accordance with Bank's procedures advised to Customer. Any reversal or recall initiated by Bank is subject to acceptance by the RDFI. Instructions to reverse or recall an ACH Credit Entry that are not initiated by Customer in time to meet the prescribed NACHA deadline for reversals may be originated by Bank as a Debit Entry; Customer shall obtain authorization from the Receiver in accordance with the Rules for any such Debit Entry and all other terms of these Service Terms applicable to Debit Entries shall apply. Entries or other instructions may not be amended or modified.

   If Customer originates Debit Entries to an account or accounts at a financial institution that is not a Participating Depository Financial Institution in the ACH system (such account hereafter called a "Non-ACH Eligible Account"), all such Debit Entries will be rejected unless Customer subscribes to a service, subject to Bank's prior consent, pursuant to which Bank will process each such Debit Entry to a Non-ACH Eligible Account by preparing a remotely created check, as such term is defined in Federal Reserve Regulation CC (an "RCC"), on the Customer's behalf. The RCC will be drawn in the amount and on the Non-Eligible ACH Account of the individual or entity specified as the receiver in the Customer's instructions and will be deposited to the Customer's designated account with Bank, Such RCC will thereafter be processed through the check clearing system. If the Customer is using such service, the Customer hereby authorizes the Bank to create each RCC as described herein and the Customer warrants to the Bank, with respect to each RCC, that the person on whose account the RCC is drawn authorized the issuance of such RCC in the amount and to the payee stated in the RCC. The Customer authorizes the Bank to debit the Customer's account for any claim or return based upon an unauthorized RCC. All other terms herein related to Entries shall also apply to RCCs created under this Section. The Bank shall not create or process RCCs or other paper drafts in lieu of ACH Debits under any circumstances other than for Non-ACH Eligible Accounts and only when the Bank has consented to provide such service, even if the Customer includes an instruction in its file for the Bank to otherwise originate an RCC or paper draft.

6. **Third Party Service Providers.** Customer may choose to use a third party service provider or service bureau to issue Entries or other instructions, handle returned Entries or perform other functions for and on Customer's behalf. If Bank accepts such Entries or other instructions, Customer will be bound by them. Customer is responsible for all actions taken or not taken by Customer's provider and Customer is responsible for all costs and expenses of Customer's provider.

7. **Third Party Sender.** If Customer is a Third Party Sender, as such term is hereafter defined, (a) Customer warrants that the Originator has agreed to be bound by the Rules and has satisfied the obligations of an Originator under the Rules; (b) in any case where the Originator fails to perform its obligations under the Rules as an Originator, Customer shall indemnify, defend and hold Bank harmless from and against any and all claims, demands, losses, liabilities and expenses, including attorneys' fees and costs, that result directly or indirectly from the failure of the Originator to perform its obligations as an Originator under the Rules; (c) Customer agrees to cooperate with Bank regarding any request for information concerning the identity of any Originator; and (d) Customer represents, warrants and covenants that neither these Service Terms nor anything related to the ACH Origination Services violates, contravenes or is inconsistent with any of the terms, conditions or provisions of any agreement, understanding or arrangement between Customer and the Originator. Further, Bank will rely on Customer to evaluate the legitimacy of the Originators and their transactions originated by Customer and for ensuring that instructions do not involve illegal activities. Customer must notify Bank immediately if Customer suspects or become aware of any activity or transaction of an Originator that Customer believes may be of an illegal or illegitimate nature or that involves the proceeds of illegal activity or that was conducted, in part or whole, for the purpose of disguising the source

of funds. Bank will be entitled at any time upon notice to Customer to decline to provide the ACH Origination Services, or terminate the provision of ACH Origination Services, for any Originator on whose behalf are originating Entries if Bank determines that there are excessive returns or reversals of Entries originated on behalf of such Originator or if Bank becomes aware of any information indicating suspicious, fraudulent or illegal activity related to such Originator or for any other reason. As used herein, "Third Party Sender" means an entity that is not an Originator, that has authorized an ODFI or another Third Party Sender to transmit, for the account of the Third Party Sender or another Third Party Sender, (i) a credit entry to the account of a Receiver in order to effect a payment from the Originator (i.e., the third party on whose behalf the Third Party Sender is transmitting the entry) to the Receiver, or (ii) a debit entry to the account of a Receiver in order to effect a payment from the Receiver to the Originator (i.e., the third party on whose behalf the Third Party Sender is transmitting the entry). Without limitation of the foregoing, Third Party Senders include U.S. regulated financial institutions, brokers and other financial intermediaries as well as any other regulated or unregulated payment processors that are customers of the Bank and use their accounts to process payments for third parties (including affiliates of the Customer).

8. **IAT Entries.** If Customer is originating Entries that are required to be formatted under the Rules as IAT Entries, Customer will comply with all applicable Rules relating thereto, and Customer will originate such Entries only through one of Bank's ACH origination channels that support IAT origination. Some of Bank's ACH origination channels do not accommodate IAT Entries; upon request, the Bank will advise Customer as to which of Bank's ACH origination channels can be used for IAT origination.

   If a foreign currency conversion is performed by Bank in connection with an IAT Entry, Customer acknowledges that the foreign currency exchange rates fluctuate, and accepts the risk of such fluctuation, including fluctuations in rate between the time Customer submits the Entry Data Instructions and the time the transaction is executed and/or reversed, returned or recalled. Any payment returns and/or reversals will be credited to Customer's account in the currency in which Customer's account is denominated, and Customer is responsible for any rate fluctuations.

   In the event of an erroneous or duplicate IAT Entry originated for payment to a receiving bank outside the United States, the rights of Bank and Customer with respect to reversal or recall of such Entry are subject to the laws, regulations and payment system rules of the receiving bank's jurisdiction.

   Customer acknowledges and agrees that IAT Entries may be delayed in processing or posting due to the Bank's or RDFI's review of such Entries for OFAC compliance. Further, Customer understands and acknowledges that unlike PPD Credit Entries, there is no requirement under the Rules that IAT Credit Entries that are made available to an RDFI by its ACH operator by 5:00 pm on the banking day prior to the Settlement Date be made available to the Receiver at the opening of business on the Settlement date; cleared IAT Credit Entries must be made available no later than the Settlement Date of the Entry, but funds are not required to be available at opening of business on the Settlement Date.

9. **Incorporation of Account Documentation; Termination.** The provisions of the account documentation, including terms and conditions governing the operation of business accounts and services, are incorporated into these Service Terms by reference. By acknowledging or signing the applicable account documentation or by using or continuing to use the ACH Origination Services, Customer agrees to these Service Terms. In addition to Bank's termination rights under the aforementioned documentation, Bank shall have the right to terminate or suspend these Service Terms and the Services upon notice to Customer in the event of the Customer's breach of the Rules.

B. ACH TRANSACTION BLOCKING & ACH TRANSACTION REVIEW

ACH Transaction Blocking is a Service that allows a Customer to block and return ACH debit and credit Entries originated to the Customer's account with the Bank. ACH Transaction Review allows the Customer to review ACH debit and credit Entries originated and posted to the Customer's account with the Bank and to instruct the Bank to return some or all of these transactions.

1. **ACH Transaction Blocking:**

   (a) **Service.** The Customer can select from a variety of authorization or blocking criteria and advise the Bank in a manner and form acceptable to the Bank. The Bank will return any blocked transaction indicating that the ACH debit was not authorized or that the ACH credit was refused.

   (b) **Company IDs.** If the Customer elects an option that blocks or allows ACH debits or credits from specified companies, the Customer must supply the Bank with the applicable ACH Company ID of the Originator as it appears on the Company/Batch Header Record. The Company ID will be the sole criterion for blocking debit and credit Entries (unless Customer has also set maximum dollar limits) and Bank will have no obligation to take any other steps to determine the identity of the Originator. The Customer will be solely responsible for obtaining the correct Company ID for each such Originator.

   The Customer understands that Company IDs are not unique and that a Company ID may identify more than one Originator, and one Originator may have multiple Company IDs. The Customer understands that Company IDs are not a perfect filter and that transactions from Originators may be blocked or allowed if the Originator uses a Company ID other than the one Customer identifies. The Bank will not be responsible for transactions blocked or allowed in accordance with the instructions the Customer provides for the Company ID.

   (c) **Transactions Not Affected by Blocking**. ACH debit and credit blocks do not apply to certain transactions. The following types of ACH-related transactions will not be blocked:

   - debits or credits to the Customer's account to offset any ACH credit or debit Entries originated by the Customer through Bank ;

- reversals of previously received ACH credit or debit Entries;
- returns or reversals by the RDFI of ACH debit or credit Entries originated by the Customer through the Bank;
- Reclamation Entries (debits);
- debits or credits to the Customer's account initiated by the Bank or Bank's agent or affiliate to correct processing errors, effect back valuations, make other adjustments or, with respect to debits, for fees, charges or other amounts the Customer owes the Bank or Bank's affiliates; and
- debits or credits to the Customer's account that the Bank posts pursuant to its internal procedures in order to comply with applicable law, regulations or payment system rules or guidance.

2. ACH Transaction Review:

(a) **Service.** Customer shall use filter criteria available through the service to select the types or categories of incoming ACH debit and/or credit transactions it wishes to review or the Customer may elect to review all incoming ACH transactions subject to Section 2(d) below.

(b) **Review and Return Process.** Based upon the filter criteria selected by the Customer, ACH transactions meeting that criteria will be made available for the Customer to review not later than a designated time on the banking day following the day on which the transactions are posted to the Customer's account. The details provided by the Bank for each Entry will include account number, dollar amount, company ID, receiver's name, standard entry class code and settlement date.

(c) The Customer shall advise the Bank by means of an agreed upon transmission method not later than the Bank's designated cut-off time on the same day as transaction information is made available of those transactions, if any, that are unauthorized and that the Customer wishes to return. The Bank is entitled to rely on any instructions which it receives and which it reasonably believes to be genuine. The Bank shall return all such transactions and make corresponding adjustments to the Customer's account to which the transactions had been posted. All transactions reported to the Customer as to which Bank does not receive a timely instruction from the Customer will remain posted or be returned based on the Transaction Review profile default decision setting established by the Customer.

(d) **ACH Transactions Not Subject to Review.** The following types of ACH transactions will not be made available for the Customer's review and decisioning:

- debits or credits to the Customer's account to offset any ACH Entries originated by the Customer through the Bank ;
- reversals of previously received ACH Entries;
- returns or reversals by the RDFI of ACH Entries originated by the Customer through the Bank;
- Reclamation Entries;
- debits or credits to the Customer's account initiated by the Bank or Bank's agent or affiliate to correct processing errors, effect back valuations, make other adjustments, or to comply with legal requirements or for fees or charges the Customer owes the Bank or Bank's affiliates; and
- if the Customer is also subscribing to the ACH Transaction Blocking service, any transactions blocked and returned pursuant to that service.

(e) **Certain Reviewed Transactions Maybe Returned/Posted Despite Instructions.** Certain transactions reviewed and approved by the Customer may nevertheless be returned by the Bank. This will happen if (i) there are insufficient funds in the Customer's account to cover the amount of an ACH debit or other charge, (ii) a stop payment was previously placed on the transaction, or (iii) the Bank determines the transaction must be returned for legal or regulatory reasons. Certain transactions that the Customer advises should be returned may nevertheless be posted by the Bank; these include ACH debits or credits to the Customer's account that the Bank posts pursuant to its internal procedures in order to comply with applicable law, regulations or payment system rules or guidance.

C. LOCKBOX

Lockbox is a remittance processing Service offered to customers to support their accounts receivables business needs. Through this service, the Customer's remittance deposits are sent to a Post Office Box and picked up by the Bank and delivered to or via courier for further processing and posting to the Customer's deposit account.

1. **Service.** The Bank will maintain the Post Office Box for the Customer's remittances and will have unrestricted and exclusive access to the Post Office Box while providing the Lockbox Service. Customers requiring Caller Service or Business Reply Mail Service for remittance collection must obtain prior approval from the Bank. Upon approval, the Customer will secure such services directly with the United States Postal Service (the "USPS") and ensure the Bank is authorized to collect the mail. The Bank shall not be responsible for delays in processing due to the Customer's failure to pay the USPS for such services or any other action taken or not taken by USPS. The Bank may direct clients to include specific codes or formats within their assigned address in order to ensure mail is identified correctly. The Customer is responsible for ensuring their customers' remittances are properly addressed in order to prevent delays in processing.

2. **Deposit; Endorsement.** The Bank will collect all mail delivered to the designated Post Office Box, and will open the mail, process the checks eligible for this service (the "Items") and credit the funds to the Customer account or process for collection the Items received, except: i) Items which the Customer has instructed the Bank in writing, and the Bank has agreed not to process; ii) Items which the Bank believes should receive the Customer's special attention; iii) Items for which the Customer is not the payee, unless the Customer has provided proper authorization to process for credit or collection of such Items; and iv) any other matter or merchandise received. The Bank will not process such excepted Items or other matters or merchandise, but will forward them to the Customer unprocessed. The Bank assumes no responsibility for the inadvertent processing of Items excepted from processing. The Bank will process credit card payments as point of sale transactions, obtaining authorization as required by applicable card rules; provided, however, the Bank will not place phone calls for authorization of referrals or process credit transactions. The Bank shall not be deemed a merchant processor and shall not be liable for any data entry errors or any chargeback. The Bank assumes no liability for any matter or merchandise received through the Post Office which is not a depositable Item, including cash. Any failure by the Bank to process an Item other than as provided herein does not constitute a failure by the Bank to exercise ordinary care. The Customer shall be liable to the Bank as a general endorser on all Items processed by the Bank.

3. **Differing Amounts.** If the amount of an Item written in words and figures differ, the Item will be processed for amount written in words. If the Item is accompanied by an invoice or statement and the amount on the statement matches the amount written in figures, and the Customer has requested, and the Bank has agreed, to process such Item for the amount written in figures, the Item may be processed for the amount written in figures. In the event the Bank processes the Item for the amount written in figures, the Customer indemnifies the Bank for any claim which may arise from that action.

4. **Foreign Items.** This Service is limited to Items drawn on domestic banks so to the extent the Bank notices that any Items drawn on foreign banks have been deposited, such Items shall be forwarded to Customer as unprocessable.

5. **Returned Items; Re-presentment.** If any Item is returned to the Bank unpaid for any reason or there is a claim involving an Item deposited to the Customer Account, the Bank will charge back that Item, together with any fees or other amounts allowed on such claims or for returned Items, against the Customer Account, regardless of whether such debit causes an overdraft to the Customer Account. If, however, the Bank has been instructed in writing by the Customer to re-present Items which have been dishonored or returned to the Bank unpaid for reasons other than account closed, the Bank may do so automatically and without notice to the Customer, and the Bank reserves the same rights to debit the Customer Account should any such Items remain unpaid after the re-presentment.

6. **Security for Imaged Items.** The Bank has specified Security Procedures for receiving and accessing Imaged Items, Imaged Documents and lockbox transaction data. The Bank is not obligated to send any images or data or allow access through the Delivery Media to any images or data which are not requested or accessed in accordance with the Security Procedures. The Customer acknowledges that once a CD-ROM is received, or it has accessed images by any Delivery Media, persons having access to the Customer's computers and image archives may have access to the Imaged Items, Imaged Documents and lockbox transaction data.

7. **Image Option.** If the Customer elects and this image option is available at the designated Bank processing location, the Bank will provide images of the Items ("Imaged Items") received together with images of related documents ("Imaged Documents"), through the media ("Delivery Media") and at the intervals agreed upon between the Bank and the Customer. The Customer may receive additional service material, including user guides, software licenses and other terms in connection with the selection of this option.

8. **Original Documents; Image Storage.** Unless the Bank has agreed otherwise, the Bank will image all Items and associated remittances and retain original documents on site for no longer than 14 days. All original documents will be destroyed 14 days after processing. If the Customer uses the Bank's Regional Retail Lockbox product, associated original documents are retained on site no longer than 7 days. The Bank will store Imaged Items for a period of seven (7) years from the date of the applicable transaction regardless of any additional imaging service requested by the Customer. If the Customer elects storage of Imaged Documents, the Bank will store Imaged Documents for a period of thirty (30) days (Short Term Storage) to ten (10) years (Long Term Storage) from the processing date of the applicable transaction., per the Customer's selection If the Customer elects to image and not store Imaged Documents with the Bank, such images will be delivered to the Customer via daily Direct Image Transmission.

9. **Accuracy; Legibility.** The information delivered to the Customer through the Delivery Media will be the same as the information in the data entry file provided to the Customer for the applicable time period. If the data entry file contains errors, those errors will also occur on the Delivery Media. The Bank will provide images that are as legible as possible given the legibility of the underlying remittance documents and the selected Delivery Media. The Bank has no liability or responsibility for the condition of the original remittance items provided to the Bank, and it reserves the right to review and approve sample remittance items for legibility prior to providing this service. The Customer is responsible for reviewing images obtained through the Delivery Media and to promptly notify the Bank of any images that are not clear.

10. **Disclosures.** As between the Customer and the Customer's clients, if applicable, certain payments collected hereunder may be subject to various cut-off times and payment deadlines (the "Disclosures"). The Customer acknowledges and agrees that the Bank has no duty to inquire as to the content of any such Disclosures, is not bound by them, and makes no representations or warranties, explicitly or implicitly, regarding same. The

Customer is responsible for ensuring that the processing and payment cut-off times established by the Bank are in compliance with the Disclosures and Customer's responsibilities under applicable laws and regulations. The Customer further acknowledges and agrees that the data processed by the Bank belongs to the Customer or the Customer's clients.

D. COIN & CURRENCY

Coin and Currency Services, also referred to as Cash Vault Services, provides coin and currency delivery and deposit services to companies that use large quantities of cash. With a nationwide vault network, Customers can place orders for coin and currency, make deposits and track activity by location through electronic reporting options.

1. Cash Orders

1.1. **Placement of Cash Orders.** The Customer may issue written instructions for the Bank to release United States coin and currency ("Cash") to an armored courier service (the "Courier") as designated by the Customer in accordance with the Bank's guidelines ("Cash Order"). The Customer acknowledges that Cash Orders may be transmitted to the Bank only during such times as set forth in the guidelines. The Bank is authorized to debit the account of the Customer designated in the Cash Order for the amount set forth in the Cash Order. If the Bank has agreed to such an arrangement, the Customer may also place a Cash Order directly at one of the Bank's branch locations by issuing a check to debit the Customer's account at the Bank or as a "cash for cash" exchange. If there are insufficient funds in the designated account, the Bank is authorized to refuse the Cash Order, to fill a partial Cash Order or to debit the designated account even if such debit causes an overdraft, or to debit any other account of the Customer at the Bank.

1.2. **Cash Order Limits.** The Bank and the Customer may agree to limit the amount of Cash that may be delivered pursuant to a Cash Order ("Cash Limit").

1.3. **Discrepancies for Cash Orders.** All Cash Orders must be validated by the Customer within 24 hours of receipt. If a currency strap, coin bag or wrapped coin discrepancy is identified, the Customer may contact Cash Services Customer Support at 888-872-0517 to request a Cash Order Claim Form. The completed form and proper documentation must be sent to the Bank and post marked within 48 hours of receipt of the Cash Order. Any claims post marked after the 48 hour period may be denied and the Customer will have no right to refuse or receive an adjustment after such time period.

1.4. **Cancellations and Amendments.** A Cash Order may be cancelled by the Customer telephonically, electronically or in writing by a person the Bank reasonably believes to be authorized to act on behalf of the Customer and only if the cancellation is received within a reasonable time before the Cash is delivered to the Courier ("Cancellation"). A Cash Order may only be amended telephonically and the Bank will not be responsible for any change in a Cash Order it has received. Any attempt to amend a Cash Order electronically may result in duplicate Cash being delivered.

1.5. **Notice of Rejection/Execution.** If the Bank rejects a Cash Order request, it will promptly notify the Customer of the reason. The Bank will notify the Customer when it has executed a Cash Order. Unless, within three (3) business days after receipt of notification of the execution of a Cash Order the Customer notifies the Bank in writing that a Cash Order was unauthorized or otherwise unenforceable against the Customer, the Bank shall not be liable for executing the Cash Order as notified, including any loss of interest.

1.6. **Security Procedure.** The Bank must receive a Cash Order using a touch-tone telephone, or other electronic communications device mutually agreed upon by the Customer and the Bank, based upon codes assigned by the Bank to the Customer that identify the Customer and the location (collectively, "Codes"). The Customer agrees that use of the Codes constitutes a security procedure for verifying the authenticity of the Cash Order as being that of the Customer ("Security Procedure")... The Customer and the Bank will maintain reasonable security and control of the Codes. The Bank is not responsible or liable for detecting any error in the transmission or content of any Cash Order or Cancellation and the Security Procedure is not intended to detect any such error. No agreement or instruction of the Customer restricting acceptance of any Cash Order or Cancellation is binding on the Bank, except as set forth in these Service Terms or in a writing signed by the Customer and the Bank. These Security Procedures do not apply to Cash Order requests made by the Customer at one of our branch locations when the Customer is making a "cash for cash" exchange or issuing a check to debit the Customer's account at the Bank.

1.7. **Geographical Limitations.** The Customer represents and warrants that all Cash Orders will be used by Customer in its normal course of business at the Customer's store/office locations in the United States**.**

2. Cash Deposits

2.1. **Standard Courier Service.** The Customer may deliver and pick up shipments of Cash or checks to or from the Bank by using the services of a Courier that has been authorized by the Bank, who will act solely as the Customer's agent. The Courier must comply with the Bank's guidelines, as amended from time to time, and must maintain all licenses and permits required by law in addition to adequate insurance to cover its liabilities in providing courier services to the Customer. The Bank may refuse to permit any courier to enter its premises with or without cause, in which case the Bank will use reasonable efforts to promptly notify the Customer. With regard to Customer's Courier, Customer is responsible for any individual's actions while at the Bank's facilities including theft, property damage, intentional crimes and any other act or omission even if such actions would be considered outside the scope of their employment and whether the individual is impersonating an employee of the courier if the Bank has followed its customary procedures for identifying the individual.

2.2. **Deposit Presentment and Processing for Standard Courier Service.** With regard to deposits delivered to one of the Bank's vault locations, the Customer's Courier must deliver deposits in sealed tamper-proof plastic security deposit bags that meet the standards described in the Bank's guidelines and contain only Cash and checks. The bags may also contain food stamps if the Customer provides proof satisfactory to the Bank of the Customer's authority to redeem food stamps. The Bank will open the bags and process the deposits.

(a) **Delivery to Vault.** If the Bank agrees to accept the Customer deposits at a vault location, the Bank will provide a receipt indicating the number of bags it has received. This receipt is not an acknowledgment of the contents of any bag, nor is any telephonic or other acknowledgment of a deposit of which the Customer notifies the Bank by telephone or by electronic means.

(b) **Delivery to Branch for Delayed Processing.** If the Bank agrees to accept the Customer deposits at a branch location, the Bank will not verify the amount of the deposits at the time of receipt but will provide the Customer with a receipt showing the amount indicated in the Customer's deposit slip. This receipt is not an acknowledgment of the contents of any bag.

2.3. **Courier Service through the use of a Smart Safe or Recycler Machine.** The Customer may use the services of a courier that has been authorized by the Bank, who will act solely as the Customer's agent. The courier must comply with the Bank's guidelines, as amended from time to time, and must maintain all licenses and permits required by law in addition to adequate insurance to cover its liabilities in providing courier services. The Bank may refuse to permit any courier to enter its premises with or without cause, in which case the Bank will use reasonable efforts to promptly notify the Customer. The Customer will receive Advance Credit only for Cash placed in Deposit Cassette (as defined below) component of the machine. The Customer's courier is authorized to transmit the Cash information only with regard to the Deposit Cassette component of the machine to the Bank on the Customer's behalf and the Bank, upon receipt of such data transmission, will provide provisional credit to the Customer's designated account. The courier will deliver the Cash to the Bank as directed by the Bank at the Customer's expense. The Customer authorizes the Bank to instruct the courier to pick up any Cash for which the Bank has given provisional credit at any time at the Customer's expense. For purpose of these Service Terms, "Deposit Cassette" is the component of the machine whereby the Customer places Cash into such component and only the courier is able to access such Cash once it is placed in the Deposit Cassette.

2.4. **Deposit Presentment and Processing through the use of a Smart Safe or Recycler Machine.** The Customer agrees that once the Cash is in the Deposit Cassette component of the machine, the Customer no longer has any ownership, control or rights with regard to the physical Cash and that the Bank is authorized to rely upon the transmitted information from the Customer's courier with regard to deposits or adjustments to the Customer's deposit account with the Bank. Once the Customer's courier has completed the verification of the Cash from the Deposit Cassette component of the machine and has transmitted the deposit/adjustment information to the Bank, the Cash is then placed into the Bank's inventory at the courier's location. In the event of a dispute related to the amount credited to the Customer's deposit account, the Customer will initiate its claim and request for an investigation with its courier.

2.5. **Discrepancies.** All deposits are subject to verification. If there are differences between the amount credited by the Bank and the amount shown on the deposit slip prepared by the Customer, the receipt provided to the Customer or its agent upon initial presentment or the transmission received from the courier on the Customer's behalf, the currency will be re-counted for discrepancies over the minimum amount specified in the Cash Vault Services Product Guide, the "Threshold" amount, the Customer's representative designated in the service implementation questionnaire will be notified of the adjustment, and an adjustment fee will be charged. If the discrepancy is in the Threshold amount or less, the Bank will not adjust the Customer's account, the Bank will retain the discrepancy amount, and no adjustment fee will be charged. The Bank's determination and records as to its receipt of any bag and as to the contents of any bag is conclusive and binding on the Customer.

2.6. **Relationship upon Delivery of Bags.** Until the Bank recounts the contents of the bags and enters a final credit to the Customer's account, the Bank is not responsible for any claimed contents of the bags. The Customer should not include anything in a bag other than Cash and its deposit slip, and the Bank shall have no responsibility or liability if there is any other property included or claimed to have been included in a bag...

2.7. **Delivery to Unattended Facility.** If the Bank agrees to allow the Customer to use one of the Bank's unattended facilities (including but not limited to a night depository or commercial ATM), the Bank may provide the Customer with an access device (such as a key or card that may require a personal identification number ("PIN"). The Customer must return all access devices to the Bank upon request. The Bank will process any deposits delivered to an unattended facility as provided for in the Bank's guidelines. If the Customer receives a receipt from an unattended facility, the receipt is not an acknowledgment of the contents of any bag or of the receipt of any bag. While the Customer or the Customer's Courier is physically present at one of the Bank's unattended facilities, the Customer is a licensee only and the Bank has no responsibility for the safety of the Customer or its Courier while at such facility.

2.8. **Liability at Unattended Facility.** The Customer assumes all risks of using any unattended facilities, including risks of theft, robbery and personal injury; the Bank is not responsible if a facility fails to operate properly in any way, including failing to open, close, lock or unlock. It is the Customer's responsibility to verify that its bags have dropped down completely into the facility, and the Customer agrees that it will not leave any bags in any facility that does not appear to be operating properly. The Bank will not be liable to the Customer if any unattended facility, tele-entry or online system is closed or otherwise unavailable for use at any time.

2.9. **Geographical Limitations of Cash Deposits**. Cash Deposits must be delivered to the Bank by Customer's courier and from Customer's physical store/office locations in the United States. Cross-border cash deposits (i.e., cash brought into the United States from outside the United States) are strictly prohibited

E. POSITIVE PAY, REVERSE POSITIVE PAY AND PAYEE VERIFICATION

JPMorgan Chase Bank, N.A. (the "Bank") will provide Customer, in accordance with the provisions set forth in these Service Terms, with one or more of the services listed below (each a "Service") that help prevent check fraud on deposit accounts by identifying discrepancies between checks ("Items") presented to the Bank for payment from the Customer's demand deposit account associated with the Service (the "Account") and those Items that are issued by Customer. The provisions of the Bank's account documentation, including terms and conditions governing the operation of business accounts and services as well as other service guides or material (the "Account Documentation") are incorporated into these Service Terms by reference. By signing the applicable Account Documentation or by using or continuing to use any of these Services, the Customer agrees to these Service Terms.

1. Services.

With Positive Pay, the Customer sends check issuance information to the Bank and the Bank compares such information to Items being presented for payment. With Reverse Positive Pay, the Bank sends the Customer information on Items being presented for payment and the Customer does its own comparison. Payee Verification is an enhanced feature for Positive Pay whereby the Customer includes payee name information and the Bank compares such information against the payee names on Items being presented. As a condition precedent for receiving Payee Verification, the Customer must be receiving Positive Pay in connection with the same Account.

2. Issuance Information.

The following information is defined as "Issuance Information" for each Item: i) Account number on which the Item is drawn; ii) Item serial number; iii) dollar amount; iv) issue date, (not as part of Reverse Positive Pay); and v) for Payee Verification only, the payee name. For Positive Pay and Payee Verification, the Customer will provide the Bank the Issuance Information by the banking day on which the Customer issues Items by means of a mutually agreed upon transmission method. The Bank will compare the Issuance Information with the Items presented to the Bank for payment against the Account. For Reverse Positive Pay, the Bank will send the Customer the Issuance Information and the Customer will compare such information with the Items they have issued.

3. Discrepancies.

For Positive Pay and Payee Verification, if an Item is presented to the Bank for which it has not received timely Issuance Information or that contains information different from the Issuance Information for that Item, the Bank will notify the Customer by means of a mutually agreed upon method, by the designated time of the Banking Day following the Banking Day the Item is presented to the Bank for payment. The Customer shall advise the Bank by means of a mutually agreed upon method by the designated time on that same Banking Day whether any such Item is authorized for payment ("Presentment Decision"). In the event that the Customer fails to timely inform the Bank about any Item for which a Presentment Decision is requested, the Bank is authorized to return such Item unless otherwise agreed by the Customer and the Bank. For Reverse Positive Pay, the Bank will provide Issuance Information to the Customer of Items presented for payment; the Customer shall advise the Bank by means of a mutually agreed upon method by the designated time on that same Banking Day whether any such Item is not authorized for payment, and in the event that the Customer fails to timely inform the Bank as required, the Bank is authorized to pay such Item(s) unless otherwise agreed by the Customer and the Bank. The Bank is entitled to rely on any instructions by the Customer which it receives and which it reasonably believes to be genuine. If a Customer attempts to change an instruction previously given by sending an email or other message to the Bank, the Bank may, but has no obligation to, act upon such change request.

4. Payee Verification Additional Terms.

For Payee Verification, Customer acknowledges that Items which have been converted to ACH transactions prior to being presented for payment will not be eligible for this service and the payee name information will not be compared to the Issuance Information for Items that have been converted to ACH transactions. If Customer fails to provide the Issuance Information in the file format required by the Bank, the Bank will not be liable for failing to detecting any discrepancy between the Item and the Issuance Information or for processing and payment of such Item. The Bank reserves the right to set a threshold amount for Items (as may be revised by the Bank from time to time) to be reviewed under the Payee Verification service (the "Threshold Amount"). The Items below the Threshold Amount will be handled according to the standard Account Documentation governing the Customer's Account; however, Customer will not be liable for such Items if the discrepancy would have otherwise been detected under this Service. With regard to Payee Verification, the Bank will compare the payee name provided in the Issuance Information to the payee lines contained in the name/address block identified on the Item (presented as provided for in the Bank's set-up requirements) and will otherwise be limited to those parameters specifically agreed to by the Customer and Bank.

5. Voided Items.

The Customer agrees to place a void on an Item in the Issuance Information only with respect to Items that are not in circulation. If the Customer decides to stop pay an Item that it has already issued, the Customer is required to place a Stop Payment request pursuant to the relevant terms of the Account Documentation, outside of these services.

6. Item Payment.

The Bank is not obligated to maintain signature cards for the Account and whether or not the Bank does maintain such signature cards, in no event shall the Bank be obligated to inspect any Item for the presence or authenticity of any signature or to determine whether any signature is authorized. The Customer acknowledges that the Bank's adherence to these procedures in these terms, in lieu of signature examination, will constitute the exercise of good faith and ordinary care by the Bank in handling Items presented for payment against the Account.

7. Over the Counter Presentment.

The Bank may, without liability to the Customer, refuse to pay any Item presented for encashment at any of the Bank's branch locations. If an Item is presented for encashment at one of the Bank's branch locations at the teller line and the account is under the Positive Pay or Payee Verification Service, the Customer authorizes the Bank to pay such Item based upon the Positive Pay information at the teller line. If an Item is presented for encashment at one of the Bank's branch locations at the teller line and the account is under the Reverse Positive Pay Service, (i) the Customer authorizes the Bank to

pay such Item pursuant to the Bank's policies and procedures for encashment, (ii) Customer assumes the risk of any loss that would have been prevented through the use of Positive Pay or Payee Verification services; and (iii) Customer agrees to unconditionally release, indemnify and hold harmless the Bank against any and all liability loss or claim relating to an Item being cashed or returned over-the-counter. The Bank may charge a person who cashes an Item drawn on the Customer's Account a fee at the time of encashment.

F. CONTROLLED DISBURSEMENTS

Controlled Disbursement Accounts help customers effectively manage the disbursement process to gain control over idle balances and automate funding transfers and is designed to provide disbursement totals early each business day.

1. **Controlled Disbursement Account.** Each controlled disbursement account ("Controlled Disbursement Account"), except as set forth herein, shall be opened and maintained in accordance with the Account Documentation. Customer agrees that if it fails to utilize one of the Bank's positive pay services on the Controlled Disbursement Account, that failure will constitute Customer negligence contributing to the making of any unauthorized signature and Customer assumes the risk that checks or drafts ("Items") presented against the Controlled Disbursement Account may be forged or altered, to the extent that the positive pay services the Bank offers may have prevented any loss. The Bank will have no liability for any loss related to an Item presented against the Controlled Disbursement Account which would otherwise generally have been returned under such positive pay services.

2. **Payment of Items.** Bank, on each banking day, will advise Customer of the total amount of Items drawn against the Controlled Disbursement Accounts that are presented for payment, on that day, to the Bank by a Federal Reserve Bank or another depository institution pursuant to a same-day settlement arrangement. Bank will honor Items which are properly payable, but shall have no obligation to pay any Item should sufficient immediately available funds to cover such Items not be transferred to the Controlled Disbursement Account in accordance with these Service Terms and the Account Documentation.

3. **Over-the-Counter Presentment.** Bank may, without liability to Customer, refuse to pay any Item presented for encashment at any of the Bank's branch locations.

4. **Funding Account for Controlled Disbursement.** Customer will maintain with Bank a designated account for purposes of funding the Controlled Disbursement Account, or the funding account may be maintained at an affiliated bank or other financial institution (the "Funding Account"). Customer authorizes Bank to debit the Funding Account for the total amount of the Items presented and any funds transfers against the Controlled Disbursement Account, and to promptly transfer such amount to the Controlled Disbursement Account even though such a debit may bring about or increase an overdraft. All funds transfers from the Funding Account to the Controlled Disbursement Account shall be in immediately available funds. Customer will maintain sufficient available funds in the Funding Account to cover Items and funds transfers presented against the Controlled Disbursement Account, and the Bank shall have no obligation to transfer funds, process Items for payment or complete any funds transfers unless there are sufficient available funds in the Funding Account. The Bank is authorized to debit the Funding Account for any obligations owed directly or indirectly on the Controlled Disbursement Account. The Bank shall not be liable for failure to pay any Item presented for payment against any Controlled Disbursement Account due to insufficient funds in the Funding Account.

5. **Media.** Bank will transmit to Customer by the transmission method or media agreed to by Customer and Bank information regarding Customer's Controlled Disbursement Account.

6. **Routing Transit Number.** Customer agrees to use the designated controlled disbursement account routing transit number on the Items it issues from the Controlled Disbursement Account. Customer acknowledges that if it fails to use such designated controlled disbursement account routing transit number the Bank is authorized to terminate this Service or any Service feature upon notice to the Customer.

7. **Financial Condition.** In the event of the deterioration of the financial condition of the Customer, as determined in the Bank's sole discretion, the Bank may immediately terminate the Service, any Service feature, and/or may convert any Controlled Disbursement Account to a stand-alone demand deposit account without prior notice to the Customer.

8. **Third Party Usage.** Customer agrees that it will not permit a third party to write checks on or otherwise issue payment transactions or instructions on Customer's Controlled Disbursement Account. Customer agrees to indemnify and hold Bank harmless from and against any and all actions, claims, demands, losses, liabilities or expenses whatsoever, including attorney's fees and costs, resulting directly or indirectly from Customer's breach of this Section 8. This indemnity shall survive the termination of these Service Terms. Notwithstanding anything to the contrary, Customer acknowledges that, if Customer breaches this Section 8, Bank may immediately terminate this Service or any Service feature upon notice to the Customer.

G. IMAGE CASH LETTER

1. **Service.**

   These terms govern the image cash letter service (the "Service") which allows image-enabled check customers to prepare and transmit electronic deposit information and check images instead of preparing and physically depositing paper cash letters and associated original check.

2. **Transmission and Processing**.

Customer shall provide through its own methods or devices the captured check images and check data from the Check, including the magnetic ink character recognition formatting (MICR) information through electronic transmissions (the "Transmissions") in the format and specifications required by the Bank's File Standards and within the cut-off times provided by the Bank. Customer authorizes Bank to process the Transmissions as substitute checks, electronic images or photos in lieu, as may be applicable for further clearing through any other financial institution, clearinghouse or Federal Reserve Bank. If the Customer is eligible and has chosen to have Checks processed as ACH transactions, Bank will convert eligible Checks to ARC or POP entries, as defined and provided for in the ACH Origination Service Terms. Customer agrees that it is solely responsible for the creation and transmission of these Transmissions to the Bank. If any Transmission (including any source document for purposes of these Service Terms) does not meet the Bank's or any transferee's standard requirements for processing, Customer assumes all risk of loss or delay in processing such Transmission and authorizes the Bank to either (a) return the Transmission to the Customer without further processing, (b) process the Transmission as sent from the Customer, (c) process the Checks as photocopies in lieu of the originals, or (d) repair or attempt to repair the Transmission for further processing. Under this Service, "Checks" shall mean checks and drafts drawn in US dollars on, or payable through, banks located in the United States (including Puerto Rico, Guam and the US Virgin Islands), endorsed for deposit to Customer's account at the Bank.

3. Image Cash Letter File Deposit Time.

The Transmissions must be sent to Bank prior to the deposit deadline. Any Transmission will be deemed to have been received by Bank when the entire file has been written onto Bank's system and made available for Bank to validate. Based upon the size of the Transmission file, there may be a significant delay between the time Customer begins to send the file and the completion of the transfer as stated above. As a result, Customer will make every effort to send the Transmission file as early as possible. Files that are received after a deposit deadline will be considered deposited as of the next deposit deadline. Processing fees and funds availability will be assessed based on the deposit deadline that is met.

4. Customer Liability.

Customer shall be solely responsible if any Transmission for which Customer has been given provisional credit is returned or reversed, and neither Bank nor its subcontractors shall be liable or responsible for same. Customer acknowledges that all credits received for deposit are provisional, subject to verification, final settlement or return. Information and data reported hereunder: (a) may be received prior to final posting and confirmation and is subject to correction and (b) is for informational purposes only and may not be relied upon. Customer agrees that Bank shall have no liability for the content of payment-related information as received from the Customer. Customer shall be solely responsible for the original Checks, including storage and retrieval. Customer agrees to provide a legible copy of an image or the original Check if requested by the Bank within five (5) business days of such request. If Customer is unable to provide the original or legible copy, Customer shall be liable for any associated loss or claim involving the Check. Customer will not present a Transmission or the original Check or substitute check more than once to the Bank if the initial Transmission was processed as an ACH transaction and shall be responsible for any and all losses or claims resulting from the Customer presenting such Check or Transmission for payment more than once through any method.

5. Suspension/Cancellation of Service.

Bank reserves the right to suspend or terminate the Service, in whole or in part if Bank believes Customer is in breach of these Service Terms or is otherwise using or accessing the Service in a manner inconsistent with the rules and regulations relating to the Service being provided and such breach, use or access is not cured within three business days after notice to Customer. Further, this Service will automatically terminate if the Customer's account with the Bank is closed for any reason. Either party may terminate the Service upon thirty (30) days' prior written notice to the other party; provided, however, that the terms of Section 9 will apply to any termination prior to the time period set forth in the Pricing Schedule.

6. Intellectual Property Ownership.

Neither these Service Terms nor the provision of the Service transfer to Customer any ownership or proprietary rights in the Bank's technology or any work or any part thereof, and all right, title and interest in and to the Bank's technology will remain solely with Bank or its subcontractors.

7. WARRANTIES AND DISCLAIMERS.

7.1. CUSTOMER WARRANTY. CUSTOMER WARRANTS AND REPRESENTS TO THE BANK THAT: (A) EACH TRANSMISSION CONTAINS ACCURATE AND LEGIBLE IMAGES OF ALL OF THE INFORMATION ON THE FRONT AND BACK OF THE ORIGINAL CHECKS AT THE TIME EACH CHECK WAS TRUNCATED; (B) EACH TRANSMISSION ALSO CONTAINS A RECORD OF ALL APPLICABLE MICR-LINE INFORMATION REQUIRED FOR A SUBSTITUTE CHECK AND THE ACCURATE AMOUNT OF THE CHECK; (C) EACH TRANSMISSION CONFORMS TO THE TECHNICAL STANDARDS FOR AN ELECTRONIC ITEM SET FORTH IN REGULATION J AND FEDERAL RESERVE BANK OPERATING CIRCULARS AND FOR A SUBSTITUTE CHECK SET FORTH IN REGULATION CC; (D) NO PERSON WILL RECEIVE A TRANSFER, PRESENTMENT OR RETURN OF, OR OTHERWISE BE CHARGED FOR, THE CHECK (EITHER THE ORIGINAL CHECK, OR A PAPER OR ELECTRONIC REPRESENTATION OF THE ORIGINAL CHECK) SUCH THAT THE PERSON WILL BE ASKED TO MAKE PAYMENT BASED UPON A CHECK IT HAS ALREADY PAID; (E) CUSTOMER WILL NOT REDEPOSIT THROUGH THIS SERVICE ANY TRANSMISSION REPRESENTING A CHECK PREVIOUSLY DEPOSITED AND RETURNED TO THE CUSTOMER; (F) CUSTOMER WILL EMPLOY COMMERCIALLY REASONABLE SECURITY MEASURES AND FIREWALLS SUFFICIENT TO PROTECT THE TRANSMISSIONS AND STORAGE TO ENSURE NO UNAUTHORIZED ACCESS OR DUPLICATE PRESENTMENT; (G) CUSTOMER WILL ONLY CREATE TRANSMISSIONS FOR CHECKS THAT ORIGINATED AS PAPER CHECKS; (H) CUSTOMER HAS ESTABLISHED AN ANTI-MONEY LAUNDERING PROGRAM IN COMPLIANCE WITH ANTI-MONEY LAUNDERING LAWS AND REGULATIONS APPLICABLE TO IT AND SUCH ANTI-MONEY LAUNDERING PROGRAM INCLUDES POLICIES, PROCEDURES AND CONTROLS DESIGNED TO DETECT AND PREVENT MONEY LAUNDERING WHICH CUSTOMER BELIEVES EFFECTIVELY PREVENTS THE USE OF CUSTOMER'S OPERATIONS, PERSONNEL OR FACILITIES FOR MONEY LAUNDERING PURPOSES; AND

(I) CUSTOMER WILL ONLY ACCESS THE SERVICE AND SEND TRANSMISSIONS TO THE BANK FROM LOCATIONS WITHIN THE UNITIED STATES; (J) CUSTOMER IS IN COMPLIANCE WITH ALL LOCAL LAWS AND REGULATIONS APPLICABLE TO IT IN THE USE OF THIS SERVICE.

7.2. DISCLAIMER. BANK AND ITS SUBCONTRACTORS MAKE NO REPRESENTATIONS OR WARRANTIES, WHETHER EXPRESS, IMPLIED OR STATUTORY REGARDING OR RELATING TO ANY OF THE TECHNOLOGY OR SERVICE AND/OR ACCESS TO OR USE OF THE SERVICE OR TECHNOLOGY PROVIDED TO CUSTOMER HEREUNDER. BANK AND ITS SUBCONTRACTORS SPECIFICALLY DISCLAIM ANY AND ALL IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. CUSTOMER ACKNOWLEDGES THAT THERE ARE CERTAIN SECURITY, CORRUPTION, TRANSMISSION ERROR AND ACCESS AVAILABILITY RISKS ASSOCIATED WITH USING OPEN NETWORKS SUCH AS THE INTERNET, AND CUSTOMER ASSUMES ALL SUCH RISKS. CUSTOMER SHALL MAKE AN INDEPENDENT ASSESSMENT OF THE ADEQUACY OF THE INTERNET IN USE OF THE SERVICE PURSUANT TO THE BANK'S PROCEDURES. CUSTOMER FURTHER ACKNOWLEDGES THAT THE SELECTION AND USE BY IT OF ANY THIRD PARTY SECURITY AND COMMUNICATIONS SOFTWARE AND THIRD PARTY SERVICE PROVIDERS IS THE SOLE RESPONSIBILITY OF CUSTOMER, AND BANK DISCLAIMS ALL RISKS RELATED THERETO, NOTHWITHSTANDING THAT THE BANK MAY RECOMMEND CERTAIN SECURITY AND/OR COMMUNICATIONS SOFTWARE AND SERVICES. CUSTOMER AGREES TO, AT ITS SOLE EXPENSE, PROCURE AND MAINTAIN ALL HARDWARE, BROWSERS, SOFTWARE AND TELECOMMUNICATIONS EQUIPMENT NECESSARY TO ACCESS THE SERVICE IN ACCORDANCE WITH THE BANK'S RECOMMENDED SYSTEM CONFIGURATION.

8. INDEMNIFICATION.

IN ADDITION TO ITS INDEMNIFICATION OBLIGATIONS IN THE ACCOUNT TERMS, AND EXCEPT FOR LOSSES OR EXPENSES CAUSED BY BANK'S FAILURE TO EXERCISE ORDINARY CARE OR WILLFUL MISCONDUCT, CUSTOMER AGREES TO INDEMNIFY BANK FOR ANY LOSS OR EXPENSE SUSTAINED (INCLUDING ATTORNEY'S FEES AND EXPENSES OF LITIGATION) RESULTING FROM (i) CUSTOMER'S LACK OF AUTHORITY TO MAKE THE WARRANTIES PROVIDED HEREIN; (ii) ANY ACTION TAKEN OR NOT TAKEN BY BANK WITHIN THE SCOPE OF ITS AUTHORITY UNDER THESE SERVICE TERMS IN HANDLING A CHECK; AND (iii) ANY WARRANTY OR INDEMNITY REQUIRED TO BE MADE BY BANK WITH RESPECT TO A CHECK UNDER APPLICABLE LAW OR REGULATION.

9. Pricing Schedule/Volume/Termination Penalties.

Bank and Customer agree to the terms of the Pricing Schedule which are incorporated herein by reference, including the length of time the Service will be provided, the charges/fees and the volumes, as may be stated in the Pricing Schedule.

10. Audit.

Customer authorizes the Bank to audit its facilities where the Checks are imaged, stored and destroyed as well as where the Transmissions are processed under this Service upon reasonable prior written notice from the Bank.

11. Online Adjustments Services.

If Bank and Customer agree, Customer will submit its adjustment requests through the web-based SVPCO Online Adjustment Service ("Online Adjustment") based on the following terms:

For Customers choosing the deposit account option where they settle for the Items through the Customer's deposit account at Bank ("Deposit Account") option, Customer agrees to be bound by the SVPCO Electronic Adjustment Exchange Rules, as may be amended from time to time ("SVPCO Rules"). Bank will assist the Customer in implementing and registering for Online Adjustment. Customer will designate at least one Administrator by submitting the Secure ID Token Form for Online Adjustments ("Form"). After the initial registration, Customer will be able to update its designated users directly through SVPCO. Bank may conclusively rely upon any information or instructions purported to be sent by the Customer through Online Adjustment. Customer agrees that Bank may charge Customer's Account for any adjustments and related fees. Customer agrees that the Bank shall have no responsibility with regard to the adjustment information transmitted through Online Adjustment. Notwithstanding anything to the contrary in these Service Terms or the Account Documentation, Online Adjustment will automatically terminate upon the termination or expiration of the agreement covering the SVPCO online adjustment service between Bank and The Clearing House.

H. CHECK PRINT

The Check Print Service enables the Customer instruct the Bank to create and mail checks and/or documents on behalf of the Customer.

1. **Print Orders.** The Bank will execute each print order requested by the Customer which is received by the Bank in a manner described in these Service Terms or as otherwise provided by the Bank (the "Print Order"). Print Order information shall include payee names and addresses. Customer agrees that it will not include any other personally identifiable information or any protected health information in its Print Orders. Print Orders may include printing of non-payment documents ("Documents") if agreed to by the Bank based upon these Service Terms.

2. **Check Pull Requests.** For any Print Order received by the Bank, the Customer may request the Bank to pull a check(s) from processing by completing the Bank's manual check pull request form ("Check Pull Request"); provided, however, that a Check Pull Request will not be effective unless and until it is received by the Bank in the form required and the Bank has had a reasonable time to act upon such request. A Print Order may not be amended or modified. The Bank has no obligation to adjust or stop the payment or posting of a Print Order it has accepted.

3. **Receipt of Print Orders.** The Customer shall transmit Print Orders to Bank to the location and in compliance with the formatting and other requirements of the Bank set forth in its operating procedures. Bank may reject any Print Order that does not comply with these Service Terms.

4. **Issuance of Checks/Documents.** For each Print Order accepted by the Bank, the Bank will: (a) cause a check to be printed and completed; (b) cause a laser facsimile signature authorized by the Customer to be placed on the check; (c) if agreed upon, cause other documents to be completed and included with the check issuance ("Documents"); and (d) mail or send the check by courier along with any Documents as agreed upon (collectively, the "Issuance"). The Customer expressly grants the Bank the authority to create and process such Issuances.

5. **Notice of Rejection.** The Bank will promptly notify the Customer if a Print Order is rejected by the Bank and will advise the Customer as to the reason. The notice or advice shall be deemed commercially reasonable if made available through the Check Print Service or given electronically, orally, by telephone or facsimile transmission.

6. **Control.** The Bank is not responsible or liable for the detection of errors contained in any Print Order as received from the Customer and is entitled to rely on the information contained therein.

7. **Reliance Upon Instructions.** The Customer is responsible for, and the Bank may rely upon, the contents of any notice or instructions that Bank believes in good faith to be from the Customer without any independent investigation. The Bank shall have no duty to inquire into the authority of the individual giving such notice or instruction. In the event the Bank receives conflicting notices or instructions, the Bank is authorized to act on either the notice or instruction, or it can refuse to act. No restriction on the Bank's acceptance of any Print Order will be binding on the Bank, except as set forth in these Service Terms unless agreed to in writing by the Bank and the Bank has had a reasonable opportunity to act upon such change.

8. **Limitation of Liability.**

   The Bank's liability shall be limited to direct damages caused by the Bank's failure to use reasonable care. Reasonable care in providing the Check Print Service shall be measured by the relevant provisions of any service levels or business requirements and the standard of reasonableness of the procedures established for the transaction involved. Mere inadvertence or honest mistake of judgment shall not constitute a failure to perform such obligations or a failure to exercise reasonable care and in no case will be deemed wrongful.

9. **Cashier's Checks.** If the Bank creates cashier's checks under the Check Print Service, the following additional terms will apply: (a) Customer will send the cashier's check print file information ("File Information") to the Bank by the Bank's cut off time on a given day ("Day One"); (b) the Customer authorizes the Bank to debit the Customer's designated account ("Funding Account") for the amounts shown on the File Information on Day One; (c) as the cashier's checks from the File Information are being processed, the account reconciliation issue file ("ARP File") must match the date of funding found in the File Information of the next banking day ("Day Two"); (d) for any cashier's check for which there is insufficient funds in the Funding Account on Day One to fund the purchase of the cashier's check, the Bank is authorized to reject the creation of such cashier's check; (e) fully funded cashier's checks will be printed on Day Two; (f) if the Customer is using one of the Bank's online services, Customer will be able to view information regarding the cashier's checks which were funded and created and those that were rejected; (g) any information from the File Information which can not be used to create a cashier's check will be communicated to the Customer for further research and reconciliation; (h) if any cashier's check is returned as undeliverable, the cashier's check will remain outstanding in the Bank's cashier's check account and escheated according to applicable laws and regulations. If the payee of a cashier's check claims that the cashier's check was lost, stolen or destroyed before the funds are escheated, such claim will be handled in accordance with the Bank's procedures.

I. ACH TAX PAYMENT

1. **Service**. Bank will provide a service (the "Service") whereby Customer can direct Bank, via touchtone telephone or internet platform, to make tax payments through the automated clearing house (ACH) system from an account with Bank that Customer specifies. Customer may use the service to pay:

   - any federal taxes covered by the Federal Tax Deposit Coupons (Form 8109) that Customer has executed and delivered to Bank from time to time;
   - certain state taxes; and
   - certain municipal taxes.

   Bank may pay taxes from Customer's account in accordance with any instructions issued in Customer's name that Bank verifies pursuant to the security procedures specified in these Service Terms. In using the Service, Customer agrees to comply with and be bound by the Operating Rules of the National Automated Clearing House Association ("NACHA Rules").

2. **Receipt of Instructions and Cancellations**. Customer may issue instructions and cancellations only during service hours that Bank specifies, and Customer acknowledges that Bank may change such service hours upon prior notice to Customer. Bank must receive instructions, including but not limited to payment cancellation instructions, not later than 6:00 p.m. ET (or such other time as Bank specifies) on the Business Day prior to the day on which the tax payment is due. For purposes of this Section, "Business Day" means a day on which the Bank is open for business in its New York office. Instructions received after such time shall not be processed until the following business day and Customer shall be liable for any charges, fees or costs associated with such payment. Bank may reject or delay processing of a tax payment if the request is not complete or is inaccurate or otherwise does not meet the criteria Bank specifies for acceptance herein or in the User Guide (as hereafter defined).

   The Service is not designed or intended to be used for any ACH tax payment that is required to be formatted as an "International ACH Transaction" (or IAT) under the NACHA Rules. Customer agrees not to use or attempt to use the Service to originate any ACH tax payment that is required to be formatted under the NACHA Rules as an "International ACH Transaction" (or IAT). Customer shall indemnify and hold Bank harmless from and against any and all claims, demands, losses, fines, penalties, damages, liabilities and expenses, including, without limitation, legal fees and expenses, resulting directly or indirectly from any ACH tax payment processed or requested to be processed by Customer via the Service which should have been formatted under the NACHA Rules as an IAT.

3. **Tax Payment Security Procedures**.

   (a) A Bank-issued or approved access code and PIN and/or other security device ("Security Device") is required to access the Service. The Customer shall be bound by and adhere to the security procedures and other procedures for use of the Service advised to it in writing through any medium by the Bank, as may be revised from time to time upon notice to the Customer (the "User Guide"). The Customer shall notify the Bank immediately of loss or theft of a Security Device, any unauthorized use of a Security Device or any other breach of security. The Bank may dishonor or disable any Security Device at any time and will inform the Customer of the same. The Customer agrees that any use of the Service with a Security Device is deemed to be carried out directly by and on behalf of the Customer. The Customer agrees to safeguard all Security Devices and to instruct each Authorized User (as defined below) to do the same.

   (b) This Section 3(b) applies to use of the Service through the designated internet platform, but does not apply to touchtone telephone access. Customer shall designate an administrator (the "Administrator") who shall have authority in accordance with the operational instructions for the Service provided to Customer in the User Guide. Customer agrees to notify Bank of any change in Administrator in the manner and form designated by Bank. Any such changes shall be effective at such time as Bank has received such notice and has had a reasonable opportunity to act upon it. In accordance with the procedures contained in the User Guide, the Administrator shall be responsible for (i) designating individuals as users ("Authorized Users"); (ii) identifying the functions of the Service; (iii) requesting, creating, controlling, disseminating, and/or canceling user entitlements; (iv) receiving and distributing materials, notices, documents and correspondence relating to the security procedures; and (v) advising each Authorized User of his/her obligations hereunder and under the User Guide. The Administrator shall provide to the Bank, upon the Bank's request, a list of Authorized Users.

4. **Open Network Access**. The Customer acknowledges that there are certain security, corruption, transmission error and access availability risks associated with using open networks such as the internet, and the Customer assumes all such risks. The Customer shall make an independent assessment of the adequacy of the internet and the Bank's security procedures. The Customer further acknowledges that the selection and use by it of any third party security and communications software and third party service providers is the sole responsibility of the Customer, and the Bank disclaims all risks related thereto, notwithstanding that the Bank may recommend certain security and/or communications software and services. The Customer agrees to, at its sole expense, procure and maintain all hardware, browsers, software and telecommunications equipment necessary to access the Service in accordance with the Bank's recommended system configuration.

5. **Funding**. Customer authorizes Bank to debit Customer's applicable account for the amount of each tax payment and for any applicable bank fees and charges when due. In the event Customer does not have sufficient funds in Customer's applicable account to cover the amount of a tax payment, Bank shall have no obligation to make the tax payment for Customer. Bank may require Customer to pay Bank the amount of each tax payment on the date of transmission of the tax payment instruction or otherwise prior to the tax payment due date. Bank may from time to establish or revise maximum dollar limits for the total value of all outstanding files of tax payments that Bank will release on customer's behalf. Bank may change or cancel the limits any time without prior notice to Customer, although Bank will try to notify Customer before Bank does that. Funds Bank receives and holds pursuant to the Service shall be held as a deposit liability to Customer and not in trust for Customer or the taxing authority.

6. **Warranties; Indemnity**. Except as specified below, Customer will be deemed to make the same warranties to Bank as Bank makes pursuant to the NACHA Rules although Customer will not be deemed to warrant the power of the Bank under applicable law to comply with the requirements of the NACHA Rules or the conformity of tax payments and other data Bank transmits to the file specifications contained in the NACHA Rules. Customer further represents and warrants to Bank that: (i) Customer shall not access the Service from any jurisdiction in which the Service is not authorized; and (ii) each tax payment Customer originates will comply with applicable U.S. laws and regulations and Customer acknowledges that payments may not be initiated that violate the laws of the United States.

   Customer agrees to indemnify Bank and Bank's employees, officers, directors and agents, and hold all of them harmless from and against any and all claims, demands, losses, liabilities or expenses (including attorney's fees and costs) resulting directly or indirectly from (a) Customer's breach of any warranty made under this Section and (b) compliance by Bank with any request Customer makes for a cancellation, stop payment, reversal or recall of any tax payment.

   Bank shall have no responsibility for any delay by any ACH Operator (as such term is defined in the NACHA Rules) or taxing authority in processing any tax payment Bank transmits to such entity or failure by such entity to process or apply any tax payment.

7. **Stop Payments; Reversals and Recalls**. Customer's instruction to stop payment of, reverse or recall one or more tax payments must be received by Bank in such time and manner as Bank specifies. Bank will process these transactions in accordance with Bank's procedures advised to Customer. Any reversal or recall initiated by Bank is subject to acceptance by the relevant taxing authority. Tax payment instructions may not be amended or modified.

8. **Payment Limits**. Bank may from time to time establish or revise (a) maximum dollar limits for each payment to be made by the Customer to a specified taxing authority, and (b) aggregate limits for all payments to be made by the Customer to a specified taxing authority within a 24-hour period. Bank may change or cancel the limits at any time without prior notice to Customer, although Bank will endeavor to give prior notice to Customer. Bank may require Customer to pay Bank the amount of any tax payment on the date of transmission to Bank or otherwise prior to the settlement date. Bank also may require Customer to maintain collateral with Bank in an amount Bank specifies.

9. **Limitation of Liability**. Bank's maximum aggregate liability in connection with the Service shall be limited as provided in the Account Documentation (as defined in Section 9 below) and shall be further limited to the lesser of the amount of any penalty or interest actually imposed by the applicable taxing authority or the total fees Customer paid Bank during the prior 12 months.

10. **Incorporation of Account Documentation; Termination**. The Bank's terms governing the operation of business accounts and services ("Account Documentation") are incorporated herein, as the same may be amended from time to time. If and to the extent that there is a conflict between the Account Documentation and these Service Terms, the provisions of these Service Terms shall prevail. In addition to Bank's termination rights under the Account Documentation, Bank shall have the right to terminate or suspend these Service Terms and the Service upon notice to Customer in the event of Customer's breach of the NACHA Rules.

J. VIRTUAL REMIT SERVICE TERMS

Virtual Remit is a remote scanning service that processes remittances and promotes Customers' efficiency in their businesses. Through this service, the Customer's remittance deposits can be imaged and transferred to the Bank via a Bank supplied data platform for further processing and posting to the Customer's deposit account.

1. Service

The Bank, which may include designated agents of the Bank, will provide Customer with Virtual Remit services for domestic transactions (the "Service") in accordance with the provisions set forth in this document (the "Service Terms"). The Service allows Customer to electronically transmit deposits of eligible checks and items (eligible checks and items are limited to personal checks, money orders, business checks, cashiers checks, traveler's checks payable in U.S. Dollars and drawn on U.S. banks or U.S. Postal Service Money Orders, payable to the Customer) by using a capture device, including a desktop scanner or mobile device (hereinafter referred to as a "Scanner"), to create an electronic image of an original paper check or item and other paper source documents (collectively, "Item") and transmitting the image of the Item ("Item Image") and related data to Bank. The provisions of the Lockbox Service Terms, Account Terms, Client Access Service Terms, and any other applicable Service Terms as may be amended from time to time (collectively, the "Account Documentation") are incorporated into these Service Terms by reference. By signing the applicable Account Documentation or by using or continuing to use the Service, Customer agrees to these Service Terms. If and to the extent there is a conflict between the Account Documentation and these Service Terms, the provisions of these Service Terms will prevail.

a. Customer agrees that after the Item Image has been created and transmitted to the Bank for deposit, Customer shall not otherwise transfer or negotiate the original Item, substitute check or any other image of the Item. Customer further agrees that Customer shall be solely responsible for the original Items, including storage, retrieval and destruction. Customer must have in place policies and procedures for the secure storage and destruction of the original Items.

b. Customer agrees that a copy made from the Item Image or substitute check of the Item, as defined by federal law, will become the legal representation of the Item for all purposes, including return item processing.

c. Subpart B of Federal Regulation CC (availability of funds) does not apply when electronic images of Items are transmitted to Bank. Funds from deposits made via this Service will be available in accordance with the availability schedule for the Service. However, Bank may apply additional delays on the availability of funds based on any other factors as determined in the Bank's sole discretion.

2. Processing

Customer shall provide through Bank approved devices, including a desktop scanner or mobile device, the Item Images in the format and specifications and in accordance with the procedures required by the Bank. The Bank may process the Items as substitute checks, electronic images or photos-in-lieu, as may be applicable for further clearing through another financial institution, clearinghouse or the Federal Reserve Bank. Customer assumes sole responsibility for the creation of these images and their subsequent provision to the Bank. If any Item Image does not meet the Bank's or any transferee's standard processing requirements, in processing such Items, Customer assumes all risk of loss or delay and authorizes the Bank to either (a) return the Item to the Customer without further processing, (b) process the Item as sent from the Customer, (c) process the Items as photos--in-lieu of the originals, or (d) repair or attempt to repair the items for further processing. Access to the Item Images and the use of a mobile device in conjunction with the Service are governed by the Client Access Service Terms, as may be amended from time to time.

3. Deposit Time

Item Images are deemed received by the Bank when the Item Images have been transferred onto the Bank's system and validated by the Bank. Based upon the size of the batch of items, there may be a significant delay between the time Customer begins to send the items and the completion of the transfer as stated above. If Bank receives and validates the submitted deposit transmission no later than the Bank's designated cut off time (the "Cutoff Time") on a day that the Bank is generally open for business, i.e., Monday through Friday excluding weekends and state or federal holidays ("Business Day"), Bank will consider that Business Day to be the day of deposit (*i.e.,* the date deposit is credited). If Bank receives and validates the submitted deposit transmission after the Cutoff Time or on a non-Business Day, the deposit will be considered to be made on the next Business Day. Whether the Cutoff Time has been met will be determined by the time displayed on the Bank's internal system clocks which may not necessarily be synchronized with the internal clock displayed on Customer's computer or device. For this reason, Bank suggests that Customer submit its deposit transmissions to Bank sufficiently in advance of the Cutoff Time to avoid the possibility of missing the Cutoff Time.

4. Foreign Items

The Service only accepts and processes Items drawn on U.S. chartered banks.

5. Warranties.

5.1 Customer represents and warrants to Bank that:

- Customer will capture and transmit all Item Images using Bank approved hardware and software applicable to the Service's function;
- Any image Bank receives accurately and legibly represents all of the information on the front and back of the Item as of the time the Item was truncated;
- The information Customer transmits to Bank corresponding to an Item contains a record of all applicable MICR-line information required for a substitute check and the accurate amount of the Item;
- The Item Image conforms to the technical standards for an electronic Item set forth in Regulation J or Federal Reserve Bank Operating Circular 3, and for a substitute check set forth in Regulation CC;
- No person will receive a transfer, presentment, or return of, or otherwise be charged for, the Item (either the original Item, or a paper or electronic representation of the original Item) such that the person will be asked to make payment based on an Item it has already paid;
- Customer will not redeposit through this Service any Item previously deposited and returned to Customer;
- Customer will employ commercially reasonable security measures, including firewalls, sufficient to protect against unauthorized access or duplicate presentment;
- Customer will only transmit Items that originated as paper checks;
- Customer will comply with all applicable laws and regulations;
- Customer will not use the Service for any purpose prohibited by foreign exchange regulations, postal regulations or any other treaty, statute, regulation or authority; and
- If the Customer is depositing Items on behalf of third parties, the Customer also represents and warrants to the Bank that with respect to each Item deposited through the Service, the owner of the Item has authorized the electronic transmittal of the Item and guarantees all prior endorsements; Customer has established an anti-money laundering program in compliance with anti-money laundering laws and regulations applicable to it and such anti-money laundering program includes policies, procedures and controls designed to detect and prevent money laundering, including "know-your-customer" policies and procedures, monitoring of transactions for suspicious activities and reporting of suspicious activities, which Customer believes effectively prevents the use of Customer's operations, personnel or facilities for money laundering purposes.

6. New Features. Bank may, from time to time, introduce new features to the Service or modify or delete existing features in its sole discretion. Bank shall notify Customer of any of these changes to features if Bank is legally required to do so. By using any new or modified features when they become available, Customer agrees to be bound by the rules concerning these features.

7. Disclaimer.

Bank makes no representations or warranties, whether express, implied or statutory regarding or relating to any of the software, capture devices or other hardware and/or access to or use of them or the related materials and the Service. Bank specifically disclaims any and all implied warranties

of merchantability and fitness for a particular purpose and non-infringement. Bank and its subcontractors also do not guarantee that Customer's access to the Services will be uninterrupted, error free or secure.

8. Indemnification.

Customer agrees to indemnify and hold the Bank harmless for any loss or expense (including attorney's fees and expenses of litigation) resulting from: breach of any of the warranties made by Customer pursuant to these Service Terms or the Lockbox Service Terms; any claim pertaining to any warranty or indemnity that Bank makes with respect to an Item under the Check Clearing for the 21st Century Act, Federal Reserve Board Regulations CC and J and all other laws, regulations and industry and clearing house rules applicable to Items as either the bank of first deposit, truncating or reconverting bank.

9. Customer Liability.

Customer shall be solely responsible if any item for which Customer has been given provisional credit is returned or reversed, and neither Bank nor its subcontractors shall be liable or responsible for same. Customer acknowledges that all credits received for deposit are provisional, subject to verification, final settlement, warranty claims or return. Information and data reported under these Service Terms: (a) may be received prior to final posting and confirmation and are subject to correction and (b) are for informational purposes only and may not be relied upon. Customer agrees that Bank shall have no liability for the content of payment-related information as received from the Customer. Customer shall be solely responsible for the original Items, including storage, retrieval and destruction. Customer agrees to provide a legible copy of an image or the original Item if requested by the Bank. If Customer is unable to provide the original or legible copy, Customer shall be liable for any associated loss or claim involving the Item.

10. Suspension/Cancellation of Service.

Bank reserves the right to suspend or terminate the Service, in whole or in part if Bank believes Customer is in breach of these Service Terms or is otherwise using or accessing the Service in a manner inconsistent with the rules and regulations relating to the Service being provided and such breach, use or access is not cured within three business days after notice to Customer. Further, this Service will automatically terminate if the Customer's account with the Bank is closed for any reason. Either party may terminate the Service upon thirty (30) days' prior written notice to the other party.

11. Intellectual Property Ownership.

Neither these Service Terms nor the provision of the Service transfer to Customer any ownership or proprietary rights in the Bank's technology or any work or any part thereof, and all right, title and interest in and to the Bank's technology will remain solely with Bank or its subcontractors.

12. Audits. Customer agrees that the Bank shall have the right to audit Customer's books, records, processes and procedures for managing and maintaining the security and safety of the scanners, transmissions and original Items, including the right to audit Customer's and Customer's agents, if any, physical locations where Customer scans original Items and processes electronic check images and data related to the Service. . Customer agrees that the use of scanners, including mobile devices, in conjunction with this Service is limited to the United States.

K. ELECTRONIC CHANNELS

1. Service and Service Terms.

The Bank will provide a service (the "Service") for electronic access to the Customer's account information, reports and data (collectively, "Data") and for the electronic transmission to the Bank of messages, service requests, and payment and non-payment instructions (each an "Instruction") and from the Bank of messages, notifications and alerts, via the J.P. Morgan Access® Online℠, J.P. Morgan Access® Mobile℠, J.P. Morgan Host-to-Host/managed file transfer and J.P. Morgan Treasury Services API channels. The Bank reserves the right to modify the applications and products available via the Service. The Service is governed by these terms (the "Service Terms"), which incorporate the Bank's terms governing the business accounts and services, including service terms that govern the Bank's processing of Instructions transmitted via the Service (collectively, the "Account Documentation"), as the same may be amended from time to time. If and to the extent that there is a conflict between the Account Documentation and these Service Terms, the provisions of these Service Terms shall prevail. Capitalized terms used in these Service Terms, and not otherwise defined, have the meaning set forth in the Global Account Terms or other account terms applicable to the Customer.

2. Security Procedures and Other Controls

2.1. **General.** The security procedures for each channel are set forth below, as may be modified on notice to the Customer through any medium (each, a "Security Procedure"). Any Instruction, the authenticity of which has been verified through a Security Procedure, shall be effective as that of the Customer, whether or not authorized, and notwithstanding that the Instruction may result in an overdraft of an Account. Controls unilaterally implemented by the Bank shall not be deemed to be Security Procedures for purposes hereof unless explicitly identified as such in writing. The Customer is responsible for implementing any procedures and requirements set forth in the applicable documentation provided to it by the Bank, as well as any subsequent modification to the procedures and requirements that are designed to strengthen the Security Procedures.

2.2. **Security Procedures for Access Online and Mobile Channels.**

2.2.1. **Access Online.** The Security Procedure for verifying payment Instructions given in the Customer's name via the Access Online channel is validation of a user ID and confidential password of an Authorized User (as defined in Section 2.5 below), a token code generated by a Bank issued or approved security device ("Security Device") assigned to that Authorized User and Bank transaction review as specified in Section 2.4.

2.2.2. **Access Mobile.** The Security Procedure for verifying payment Instructions given in the Customer's name via the Access Mobile channel is either (i) validation of the registration with the Bank of the mobile device, a biometric identifier, and the private swipe key of an Authorized User (as defined in Section 2.5 below) and transaction review as specified in Section 2.4 or (ii) validation of a user ID and confidential password of an Authorized User (as defined in Section 2.5 below), a token code generated by Security Device assigned to that Authorized User and transaction review as specified in Section 2.4.

2.2.3. **Controls Offered to Customer.** For Access Online and Mobile, the Customer may choose to apply certain controls offered by the Bank to the Customer from time to time designed to reduce the Customer's risk of erroneous or unauthorized transactions. The Customer is responsible for choosing controls that are appropriate for the Customer taking into account, among other things, the nature and scale of the Customer's business, including the size, type and frequency of payment orders normally issued to the Bank, and the nature of its technical environment, internal accounting controls and information security policies and procedures (collectively, "Customer Internal Controls"). The Security Procedure that is established by agreement of the Customer and the Bank herein is established in view of the Customer Internal Controls applied by the Customer.

2.3. **Security Procedures and Certificate Procedures for Host-to-Host/Managed File Transfer and API Channels.** The Security Procedure for verifying payment Instructions given in the Customer's name via the Host-to-Host/managed file transfer and API channels is authentication of a digital signature certificate, which authenticates transmitted files on the basis of the corresponding security key (the "Signature Certificate") and transaction review as provided in Section 2.4. The Customer and the Bank will use the following procedures for the use of a transport certificate, which establishes a secure session between the Bank and the Customer on the basis of a corresponding security key (the "Transport Certificate") and the Signature Certificate. Each of the Signature Certificate and the Transport Certificate are referred to herein as a "Certificate" and the corresponding security key as a "Security Key".

2.3.1. **Certificate Procedures and Requirements.** The Customer shall comply with the Bank's procedures and requirements for Certificates and Security Keys notified to the Customer, including but not limited to Certificate validity period, key strength and cryptographic specifications, as amended from time to time. Any request to the Bank to add, update or delete a Security Key shall include the applicable Certificate, a text file or other physical representation of the public Security Key of such Certificate and any other information in the manner and form designated by the Bank. The Bank shall have the right to rely on any request that the Bank believes in good faith to have been sent by the designated security administrator ("Security Administrator"), notwithstanding that such Security Administrator may be a third party agent acting on behalf of the Customer.

2.3.2. **Certificate Expiration.** Notwithstanding any courtesy notifications the Bank may send to the Customer regarding the Customer's impending Certificate expiration, the Customer acknowledges that it is the Customer's sole responsibility to update the Certificate prior to its expiration date. The Bank shall have no liability for any loss or damage (including, for the avoidance of doubt, any indirect, special, punitive or consequential damages or losses) arising from the Customer's failure to timely update its Certificate. To allow for proper execution of administrative procedures, and to prevent any lapse in service or emergency procedures, the Customer must request a Certificate change at least 30 days prior to actual Certificate expiration.

2.4. **Transaction Review.** In addition to the Security Procedures described above, the applicable Security Procedure for each channel also includes transaction review based on various risk characteristics. The transaction review shall be conducted in accordance with commercially reasonable protocols selected by the Bank. Additional authentication from the Customer, such as call-back verification, may be required to complete certain transactions identified by the Bank through transaction review.

2.5. **Confidentiality/Security Breach.** The Customer will be responsible for safeguarding and ensuring that the Security Procedures and Security Devices are known to and used (i) in the case of Access Online and Mobile, only by individuals designated as users by the Security Administrators ("Authorized Users"), or, (ii) in the case of the Host-to-Host/managed file transfer and API channels, only by the Security Administrators. The Customer shall notify the Bank immediately in the event of any loss, theft or unauthorized use of a Security Procedure or a Security Device or any other breach of security. The Bank may dishonor or disable any Security Device or any aspect of the Security Procedures at any time without prior notice and will inform the Customer of the same. In addition, each Customer must implement its own physical and logical security, as well as management controls, that appropriately protect the hardware, software, and access controls used in the transaction process from unauthorized access and use.

2.6. **Security Administrator Designation.** The Customer shall designate Security Administrators who shall have equal authority as specified in Section 2.7 below. The Bank is entitled to rely on any such designation of a Security Administrator. The Customer agrees to notify the Bank of any change in Security Administrators in the manner and form designated by the Bank. Any such change shall be effective at such time as the Bank has received such notice and has had a reasonable opportunity to act upon it.

2.7. **Security Administrator Responsibilities.** Each Security Administrator shall be authorized by the Customer to and be responsible for (i) designating individuals as Authorized Users with respect to the Access Online and Mobile channels; (ii) identifying the functions of the Service that each Authorized User may access; (iii) requesting, creating, controlling, disseminating, and/or canceling user entitlements with respect

to the Access Online and Mobile channels; (iv) managing the Customer's Certificates and corresponding Security Keys with respect to the Host-to-Host/managed file transfer and API channels; (v) receiving and distributing materials, notices, documents and correspondence relating to the Security Procedures; and (vi) advising each Authorized User of his/her obligations hereunder or under any of the applicable Account Documentation. The Security Administrators shall provide to the Bank, upon the Bank's request, a list of Authorized Users for the Access Online and Mobile channels. In the absence of a valid designation of a Security Administrator at any time or in the event that, after reasonable efforts, the Bank is unable to contact a Security Administrator, the Bank may deliver Security Devices and materials and deliver/receive Security Keys to/from any person authorized to act on behalf of the Customer with respect to the Accounts.

2.8. **Processing.** The Customer acknowledges that the application of the Security Procedures and any controls unilaterally implemented by the Bank may cause delays in processing Instructions or result in the Bank declining to execute an Instruction.

3. Open Network Access; Equipment

THE SERVICE IS PROVIDED "AS IS" AND "AS AVAILABLE". TO THE MAXIMUM EXTENT PERMITTED UNDER APPLICABLE LAW, ALL WARRANTIES AND REPRESENTATIONS, EXPRESS, STATUTORY OR IMPLIED, WITH REGARD TO THE SERVICE ARE HEREBY DISCLAIMED, INCLUDING ANY WARRANTIES OF MERCHANTABILITY, SATISFACTORY QUALITY, FITNESS FOR A PARTICULAR PURPOSE AND COURSE OF DEALING OR USAGE OF TRADE OR WARRANTIES OF NON-INFRINGEMENT OR WARRANTIES AS TO ANY RESULTS TO BE OBTAINED FROM THE USE OF THE SERVICE. TO THE EXTENT THAT ANY IMPLIED WARRANTIES CANNOT BE DISCLAIMED UNDER APPLICABLE LAW, ANY SUCH IMPLIED WARRANTIES ARE LIMITED IN DURATION TO 30 DAYS FROM THE INITIAL DELIVERY DATE OF THE RELEVANT SERVICE. THE BANK AND ITS THIRD PARTY DATA AND SERVICE PROVIDERS DO NOT WARRANT OR GUARANTEE THE SECURITY, SEQUENCE, TIMELINESS, ACCURACY, PERFORMANCE OR COMPLETENESS OF THE DATA OR THAT ANY PART OF THE SERVICE WILL BE ERROR-FREE, WITHOUT DELAY OR UNINTERRUPTED.

The Customer is responsible for, at its sole expense, obtaining, installing, maintaining and operating all browsers, software, hardware, telecommunications equipment or other equipment (collectively, "System") necessary for the Customer to access and use the Service in accordance with the Bank's recommended system configuration. The Bank makes no endorsement of any System or third party site, notwithstanding that the Bank may recommend certain Systems or provide a link to a third party site where the Customer may download software. The Customer shall at all times maintain current and effective anti-virus, anti-spyware or other security software and shall take all reasonable measures to maintain the security of its System. The Customer acknowledges that there are certain security, corruption, transmission error, and access availability risks associated with using open networks such as the Internet. The Customer further acknowledges that it has made an independent assessment of the adequacy of the Internet, the System and the Security Procedures in connection with the use of the Service. The Customer assumes all risks and liabilities associated with the operation, performance and security of its System and the use of the Internet or other open networks, failure or use of Customer's or third party equipment, hardware, browsers, operating systems and/or other software or programs, and services or persons outside of the Bank's control, and the Bank disclaims all such risks. The Customer shall not use any equipment, hardware, software or program that harms the Bank. The Customer agrees to indemnify and hold the Bank, and its agents, employees, officers and directors, harmless from and against any and all claims, damages, demands, judgments, liabilities, losses, costs and expenses arising, directly or indirectly, from the Customer's use of Customer's or third-party software or program. The Bank may in its discretion provide training or information on best practices to the Customer from time to time but in so doing it will not be considered a consultant or advisor with respect to cybersecurity.

4. Instructions; Data

4.1. The Customer shall be solely responsible for the genuineness and accuracy, both as to content and form, of all Instructions given to the Bank's in the Customer's name and verified through the applicable Security Procedure.

4.2. The Customer acknowledges that Data may not have been reviewed by the Bank, may be inaccurate, and may be periodically updated and adjusted. The Bank is not obligated to assure the accuracy of Data and will not be liable for any loss or damage arising out of the inaccuracy of Data. Further, the Bank shall have no liability for the receipt or viewing by any party of Data sent to the destinations designated by the Customer, including but not limited to email addresses, fax and telephone number(s).

5. Customer Warranties

The Customer represents, warrants and covenants to the Bank that: (i) prior to submitting any document or Instruction that designates Authorized Users, the Customer shall obtain from each individual referred to in such document or Instruction all necessary consents to enable the Bank to process the data set out therein for the purposes of providing the Service; (ii) the Customer has accurately designated in writing or electronically the geographic location of its Authorized Users and shall provide all updates to such information; (iii) the Customer shall not access the Service from any jurisdiction which the Bank informs the Customer or where the Customer has knowledge that the Service is not authorized; and (iv) the Security Procedures offered to the Customer conform to the Customer's wishes and needs and the Customer has not requested Security Procedures other than those expressly agreed by the Customer and the Bank. The Customer hereby represents, warrants and covenants to the Bank that these Service Terms constitute its legal and binding obligations enforceable in accordance with its terms.

6. Miscellaneous

6.1. The additional jurisdiction specific provisions set forth in the attached Exhibit are applicable to the Customer based on the domicile of the Customer. Where any local laws or regulations of any jurisdiction apply as a result of the Customer's Authorized Users accessing the Service

from such jurisdiction or as a result of the location of such accounts in such jurisdiction, the jurisdictional specific provisions of that jurisdiction set forth in the attached Exhibit shall apply to the use of the Service by such Authorized Users.

6.2. These Service Terms shall be governed by and construed in accordance with the laws of the State of New York, USA (without reference to the conflict of laws rules thereof).

6.3. All disputes relating to or in connection with these Service Terms solely arising outside the United States shall be finally settled under the Rules of Arbitration of the International Chamber of Commerce by one or more arbitrators appointed in accordance with the said Rules. The place of arbitration shall be (i) Singapore where the dispute arises solely in Asia and (ii) London where the dispute arises elsewhere (other than the United States) and the arbitration shall be conducted in English, except that (a) disputes solely between a Customer domiciled in the People's Republic of China and JPMorgan Chase Bank (China) Company Limited shall be submitted to the China International Economic and Trade Arbitration Commission ("CIETAC") for arbitration in accordance with its rules in effect at the time an application is made, with the place of arbitration being Beijing and the arbitration being conducted in English; and (b) disputes involving a Customer domiciled in Taiwan shall be irrevocably submitted to the exclusive jurisdiction of the courts of the State of New York and the United States District Court located in the borough of Manhattan in New York City. With respect to any dispute, suit, action or proceedings arising in the United States relating to these Service Terms, the Customer irrevocably submits to the exclusive jurisdiction of the courts of the State of New York and the United States District Court located in the borough of Manhattan in New York City.

7. Mobile

7.1. Accepting use of the Bank's SMS text notification service and/or Access Mobile channel constitutes the Customer's authorization for the Bank to send Data, message notifications and alerts through any communication service providers, including both Internet and telecommunications providers, which shall each be deemed to be acting as the Customer's agent. Such providers may not encrypt communications.

7.2. Authorized Users may be required to accept an application agreement or license in order to download Access Mobile. The Customer acknowledges that the Account Documentation shall in all cases govern the provision of these services.

7.3. The Customer acknowledges that the Bank shall not be liable for any delays in any Data, message notification or alert delivered via any mobile device.

Exhibit A - Jurisdiction Specific Provisions

A. Australia & New Zealand

To the extent that any supply made by the Bank under these Service Terms is a taxable supply for the purposes of the Australian Goods and Services Tax, or that goods and services tax under the New Zealand Goods and Services Tax Act 1985 is payable in respect of any supply under this License Agreement, ("GST"), the fees payable in respect of that taxable supply ("original amount") will be increased by the amount of GST payable in respect of that taxable supply. Customer must pay the increased amount at the same time and in the same manner as the original amount.

B. Indonesia

The Bank and the Customer agree that, for the effectiveness of any termination of these Service Terms or the Services provided hereunder, they hereby waive any provisions, procedures and operation of any applicable law to the extent a court order is required for the termination of these Service Terms and the Account Documentation as applicable to the services provided under these Service Terms.

Section 4.2 shall be replaced by "Except for losses directly resulting from errors or delay caused by the Bank's gross negligence or willful misconduct, the Customer acknowledges that the Bank shall not be liable for any delays in any Data, message notification or alert delivered via any mobile device."

C. Malaysia/Labuan

In relation to accounts held in Malaysia (excluding Labuan) and/or where the Service is provided in Malaysia (excluding Labuan) references in the Service Terms to "Bank," shall mean J.P. Morgan Chase Bank Berhad. In relation to accounts held in Labuan and/or where the Service is provided in Labuan, references in the Service Terms to "Bank," shall mean J.P. Morgan Chase Bank, N.A., Labuan Branch. The Service provided by J.P. Morgan Chase Bank Berhad shall be accessed through http://www.jpmorganaccess.com.my and the Customer undertakes not to access or utilize or attempt to access or utilize the Service through any other JPMorgan website.

D. Republic of China (Taiwan)

Section 4.2 shall be replaced by "Except for losses directly resulting from errors or delay caused by the Bank's gross negligence or willful misconduct, the Customer acknowledges that the Bank shall not be liable for any delays in any Data, message notification or alert delivered via any mobile device."

The Customer acknowledges that it will take steps to ensure it enters into the correct website before attempting to access the Service.

E. European Union.

The Customer acknowledges that it is not a "consumer" for the purpose of the European Union's Electronic Commerce Directive ("ECD") (i.e., that it is not an individual) and agrees that the Bank shall not be required to make any disclosures or do any other thing which a non-consumer may agree not to require under the UK rules and legislation implementing the ECD. For further information on the Bank, please see "Notice regarding EU e-commerce information" in the Terms & Conditions on http://www.jpmorgan.com.

(i) Details of the Bank's processing activities of personal data can be found in its EMEA Privacy Policy, which is available on the Bank's website at www.jpmorgan.com/privacy/EMEA. The Bank's EMEA Privacy Policy may be updated or revised from time to time without prior notice. The EMEA Privacy Policy may be used to assist the Customer with providing a fair processing notice to the Customer's underlying data subjects.

(ii) The Customer agrees that it has established rights necessary to provide personal data to the Bank and that the Customer will provide any requisite notice to individuals and ensure that there is a proper legal basis for the Bank to process the personal data as described in and for the purposes detailed in the Bank's EMEA Privacy Policy. Both the Customer and the Bank will comply with its respective obligations under applicable privacy laws.

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