U.S. Debit Card with Digital Pay Forum

Opening Remarks

Ronda Kent
Assistant Commissioner – Payment Management

September 25, 2019
Ronda L. Kent serves as the Assistant Commissioner for Payment Management and Chief Disbursing Officer in the U.S. Department of the Treasury’s Bureau of the Fiscal Service. The Fiscal Service provides centralized accounting, financing, collections, payment, and shared services for the Federal government.

Ms. Kent is responsible for providing executive leadership for the disbursement of more than one billion Treasury-disbursed payments totaling $3.5 trillion annually, the accounting for those payments, and the protection of the integrity of Government payments on behalf of more than 250 Federal entities. Her organization is also responsible for providing non-traditional payment-related services for Federal agencies and payment recipients with unique needs, as well as a web-based electronic invoicing and payment notification service for Federal agencies and their vendors.

Ms. Kent joined Treasury in 1996, and since then has served in various capacities and worked on a variety of programs and issues related to electronic commerce (payments and collections), privacy, debt collection, and the Do Not Pay program. Before joining Treasury, Ms. Kent served as an attorney with the Federal Deposit Insurance Corporation, the Resolution Trust Corporation, and in private practice. Ms. Kent received a B.A. from the University of Connecticut and a J.D. from the University of Connecticut, School of Law.
Did you know... In 1950 Treasury operated 27 check printing facilities, employed more than 12,000 employees that printed/mailed 718 million checks.

Today we process ~1.2 billion payments with 58 million as paper checks from two Regional Finance Centers (Kansas City & Philadelphia).

2019

Total cost to process payment via paper check: $1.78
Total cost to process payment via ACH: $0.05

Since not all non-benefit payments can be made via ACH we created the **U.S. Debit Card Program**

and piloted in 2000 to determine feasibility of agencies using debit card that replaced checks, vouchers and cash.

Total # of agency profiles: 80+
Total $ loads: $255M (projected)
Total active cards: 248K
# Funds Movement & Tracking Offerings

<table>
<thead>
<tr>
<th>Program</th>
<th>Focus</th>
<th>Contact</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Electronic Payments</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SPS</td>
<td>Secure single &amp; bulk domestic ACH payments</td>
<td><a href="https://www.fiscal.treasury.gov/sps/">https://www.fiscal.treasury.gov/sps/</a></td>
</tr>
<tr>
<td>Same Day ACH</td>
<td>Used when payments need to post same day (restrictions apply)</td>
<td><a href="https://www.fiscal.treasury.gov/pam/">https://www.fiscal.treasury.gov/pam/</a></td>
</tr>
<tr>
<td>Fedwire</td>
<td>Used when payments must be made instantaneously</td>
<td><a href="https://www.fiscal.treasury.gov/pam/">https://www.fiscal.treasury.gov/pam/</a></td>
</tr>
<tr>
<td>ITS.gov</td>
<td>Single and bulk international payments to over 200 countries</td>
<td><a href="https://www.fiscal.treasury.gov/its/">https://www.fiscal.treasury.gov/its/</a></td>
</tr>
<tr>
<td><strong>Grants</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ASAP</td>
<td>Secure portal for recipients to obtain funds (Grant disbursements)</td>
<td><a href="https://www.fiscal.treasury.gov/asap/">https://www.fiscal.treasury.gov/asap/</a></td>
</tr>
<tr>
<td><strong>Debit Cards</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Direct Express</td>
<td>Debit card for benefit payment recipients (Focus on unbanked)</td>
<td><a href="https://www.fiscal.treasury.gov/directexpress/">https://www.fiscal.treasury.gov/directexpress/</a></td>
</tr>
<tr>
<td>US Debit Card with Digital Payment</td>
<td>Payment platform for non-benefit recipients (Agency agents, agency recipients)</td>
<td><a href="https://www.fiscal.treasury.gov/us-debit-card/">https://www.fiscal.treasury.gov/us-debit-card/</a></td>
</tr>
<tr>
<td><strong>Other financial tools</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stored Value Card (SVC)</td>
<td>Platform for contained payment environment (Military base, naval ship, remote science compounds, etc.)</td>
<td><a href="https://www.fiscal.treasury.gov/stored-value-card/">https://www.fiscal.treasury.gov/stored-value-card/</a></td>
</tr>
<tr>
<td>Invoice Processing Platform (IPP)</td>
<td>Government invoicing from purchase order through payment notification</td>
<td><a href="https://www.fiscal.treasury.gov/ipp/">https://www.fiscal.treasury.gov/ipp/</a></td>
</tr>
<tr>
<td>Post Payment Modernization (PPMI)</td>
<td>Serves as system of record for payments, claims, and returns</td>
<td><a href="https://www.fiscal.treasury.gov/ppmi/">https://www.fiscal.treasury.gov/ppmi/</a></td>
</tr>
</tbody>
</table>
Thank you
U.S. Debit Card with Digital Pay Service

Forum Overview

Richard A. Haug
U.S. Debit Card Program Manager

September 25, 2019
Since 2000 federal agencies have the ability to deliver non-benefit payments more efficiently and securely via multiple digital payment options.

- Our legal authorities to provide these services may be found here:
  - 31 USC 321, 3301-3343; 12 USC 90; 31 CFR Part 208

To provide the most up to date payment industry best practices we selected:

**MetaBank** as financial agent (July 2017) [www.metabank.com]
- Established in 1954 with HQ in Sioux Falls, SD
- Recognized leader in prepaid industry with 700 million cards issued since 2004
- Processes over $1.2 billion ACH and wire services transfers p/day
  [Meta Bank’s chosen payment processor]

**Fiserve** (formerly First Data) provides payment platform processing [www.firstdata.com]
- Established in 1971 currently headquartered in Atlanta, GA
- #1 processor in the world with $2.4 trillion and 93 billion transactions processed annually
- Money Network® Card Management Service provides intuitive payment program management
Payment Issuance Options

**Traditional U.S. Debit Card**
- 70+ agency users
- Agency PM issues card to recipient
- Instant issuance available
- Bulk issuance mailed to either
  - Agency offices
  - Recipients address
  - Combination
- Agency and/or Cardholder Funds
- Fund use controls available

**Digital Pay**
- New for 2019 – 1 agency
- Agency PM sends email to recipient
- Recipient builds online profile
- Recipient selects receipt method
  - U.S. Debit virtual card
  - Direct-to-Debit
  - ACH
- Agency and/or Cardholder Funds
- Fund use controls limited
Traditional U.S. Debit Card
## Program Characteristics

### Functionality Available with All U.S. Debit Card Accounts

**Cards are:**
- Visa branded and EMV-enabled
- Single load or reloadable
- Personalized or standard issue cards
- Instant issue or standard issue
- 3 or 5 year expiration

**Includes:**
- 24/7/365 IVR cardholder support
- Dedicated web portal and mobile app
- FDIC insured accounts
- Regulation E & Regulation P compliant
- Fraud monitoring
- Card activity and reconciliation reports

### Agency Owned

- Recover unused funds from accounts
- Limit Merchant Classification Codes (MCC)
- Restrict ATM & OTC withdrawals
- Restrict fund transfers
- View all transactions details

### Cardholder Owned

- No recovery of funds after disbursement
- No limits on MCC
- No ATM or OTC restrictions
- No funds transfer restrictions
- No access to transaction detail
## Cost/Fee Responsibilities

<table>
<thead>
<tr>
<th>Types of Costs</th>
<th>Treasury</th>
<th>Agency</th>
<th>Financial Agent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Implementation Costs</td>
<td></td>
<td></td>
<td>√</td>
</tr>
<tr>
<td>Disburse Funds TGA to CFA</td>
<td>√</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Disburse Funds CFA to Account</td>
<td>√</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cardholder User Fees</td>
<td></td>
<td></td>
<td>√</td>
</tr>
</tbody>
</table>

### US Debit Card usage that incur no costs:
- Free purchases anywhere VISA is accepted
- One free withdrawal 55,000+ in-network ATMs
- Ability to write checks against the funds
- Transfer funds to other bank accounts

### US Debit Card usage that incurs costs:
- ATM use after first free withdrawal
- Out-of-network ATMS
- Lost card replacement
Digital Pay
Money Network Client Management System “CMS”

- Mobile G2C Payments Portal
- Initiate and manage digital payments
- Multiple disbursement options
- Register recurring payments
- Send payee email for following:
  - Payment initiation
  - Payment completion
  - Reminder to claim payment
  - Void / Cancellation of payment
- Tracks history of payments
- Reconciliation
- Reports
  - Payment Details
  - Disbursement Method Summary
  - Payment Status
  - Payee Record Status
U.S. Debit Card Go Live Path

1 Month
1. Agency/Treasury sign Memorandum of Understanding (MOU)
2. Kick-off Implementation (Agency / Treasury / MetaBank / First Data)
   • ACH or ASAP
   • Agency Funds or Cardholder Funds
   • Virtual Card or Physical Plastic
   • Demonstrate Money Network Portal CMS
   • Set up profiles
   • Develop customer support materials
   • Create security and support measures

1-3 Months

3. Go Live!

Begin with the end in mind.
-Stephen Covey

Agency engagement is critical to the success of the implementation.
Program Contacts

Richard Haug  
U.S. Debit Card – Program Manager  
202-874-5310  
Richard.haug@fiscal.treasury.gov

Megan Lanpher  
Senior Account Manager  
605-940-7322  
mlanpher@metabank.com

John Grubmuller  
Vice President – Federal Government  
937-474-8005  
John.grubmuller@firstdata.com

Lauren Harris  
Account Executive-Federal Government  
202-478-1122  
Lauren.harris@firstdata.com
U.S Debit Card with Digital Pay User Forum
Program Support Options

Megan Lanpher and Lauren Harris
September 25, 2019
# U.S. Debit Card Agency Support

<table>
<thead>
<tr>
<th>Role</th>
<th>Definition</th>
<th>Name</th>
<th>Contact Information</th>
</tr>
</thead>
</table>
| **Client Services Help Desk for Agencies** | • Day-to-day support  
• Product questions  
• Issues & resolution  
• Password resets  
• General information  
• Gateway/Messageway support | First Data Client Services | 855-335-1071  
See additional detail on following page |
| **Program Management Oversight and Escalation** | • Escalation point for resolving issues  
• Manage relationship  
• Track and report performance measures  
• Conduct monthly and quarterly reviews | Lauren Harris | Office: 202-478-1122  
Mobile: 202-740-3883  
Lauren.Harris@firstdata.com |
| **Oversight of Day-to-Day Operations** | • Monitor day-to-day operations  
• Ensure timely resolution of issues  
• Provide support to agencies | Megan Lanpher | Office: 605-782-0971  
Mobile: 605-809-7318  
mlanpher@metabank.com |
# U.S. Debit Card Agency Support

<table>
<thead>
<tr>
<th>Role</th>
<th>Definition</th>
<th>Name</th>
<th>Contact Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Client Services Help Desk for Agencies</td>
<td>855-355-1071 <a href="mailto:mnclientservices@firstdata.com">mnclientservices@firstdata.com</a></td>
<td>7am – 9pm EST, Monday - Friday, Business Days</td>
<td>Day-to-Day Support, Product Questions, Issues &amp; Resolution, Instant Funding Reversals, Help for escalations</td>
</tr>
<tr>
<td></td>
<td>Email Response SLA: 2 Hours</td>
<td>Instructions provided if contacted outside these hours</td>
<td></td>
</tr>
<tr>
<td>Account Analyst</td>
<td>Lurene Long Sr. Account Manager, Prepaid Client Services Office: 404.890.3645 <a href="mailto:ustreasury@firstdata.com">ustreasury@firstdata.com</a></td>
<td>7am – 9pm EST, Monday - Friday, Business Days</td>
<td>Issues requiring additional research or expertise, Will engage Client Services team as needed, Understanding outages or system changes</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Group</th>
<th>Area</th>
<th>Contact</th>
<th>Requires Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fiserv Support Center</td>
<td>File Gateway / Messageway Support</td>
<td>800.555.9966</td>
<td>File Gateway or Messageway User ID, File Name</td>
</tr>
<tr>
<td>Fiserv Command Center</td>
<td>After Hours Client Support</td>
<td>888.377.8726 option 2</td>
<td></td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>IT Support</th>
<th>PC LAN Help Desk</th>
<th>Instructions</th>
<th>Required Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Password Resets</td>
<td>877.332.4526</td>
<td>Press: Options 3 / 3 / 6</td>
<td>Username &amp; Email Address</td>
</tr>
</tbody>
</table>
U.S Debit Card with Digital Pay User Forum
Cybersecurity, Fraud, and Threat Intelligence Panel

Fiserv Panelists
September 25, 2019
Mike Zappel- Director of Technical Fraud Investigations

Mike currently serves within the Fiserv Cybersecurity, Fraud, and Risk Division as a Director of Technical Fraud Investigations and provides fraud prevention, detection and remediation expertise. In addition he manages international fraud investigations and law enforcement liaison efforts for multiple business units in the global enterprise.

Mike spent 11 years as a Special Agent with the United States Secret Service working in the New York Field Office focusing on financial investigations related to check scams, bank fraud, embezzlement, mortgage fraud and access device fraud. He served as the Secret Service liaison to the New York Organized Crime Drug Enforcement Task Force, a member of the New York/New Jersey Electronic Crimes Task Force.

While stationed in Washington, DC, he was assigned to the Vice Presidential Protective Division and provided physical protection, domestically and internationally, to the Vice President of the United States and Secretary of Homeland Security.
Catherine Marinzel - Head of Technical Fraud Investigations

Catherine has nearly a decade of experience in the field of financial fraud and white collar criminal investigations. She joined Fiserv in 2015 and is currently Head of Technical Fraud Investigations within the Cybersecurity, Fraud, and Risk Division.

Previously, Catherine worked as a consultant and Special Investigator for the New York County District Attorney’s Office within the Rackets Bureau on a $400M white collar fraud scheme that resulted in 130+ indictments. Prior to that she worked as a contractor for the Defense Cyber Crime Center, Defense Cyber Investigations Training Academy.

Catherine represents Fiserv as a Steering Committee Member for the International Center for Missing and Exploited Children, Financial Coalition Against Child Sexual Exploitation (FCACSE). Catherine holds a bachelor’s degree from Miami University of Ohio.
Dr. Christopher Mascaro, General Manager, Research & Development, has over 17 years of experience in cyber security and analytics across government intelligence, consulting and academia. Dr. Mascaro has specialized in helping Fortune 250 companies build and mature their cyber security and analytics programs.

In addition to his industry work, Dr. Mascaro has over 30 academic publications in the field of information science, security and data analytics published in ACM and IEEE venues. He is a frequent lecturer and speaker at numerous academic and industry conferences.
Rick Van Luvender - Vice President of Global Cybersecurity and Fraud

Rick served on the Board for the Financial Services Information Sharing and Analysis Center from ‘13 through ‘18, the global financial industry's go to resource for cyber and physical threat intelligence analysis and sharing. From ‘10 to ‘13 elected Chairman of the Payment Processor Information Sharing Council. The PPISC was formed under the umbrella of the Financial Service Information Sharing and Analysis Center, to provide a forum for sharing information about fraud, threats, vulnerabilities and risk mitigation in the payments industry.

Over the last 20 years, Rick has been recognized as a leading Information Security Professional, with expertise in network and computer security, information and intellectual property protection, and industry specific regulatory requirements. His work spans several industries, including financial services, education and consumer products.

Rick served in the United States Marine Corps from March of 1989 to March of 1993 as a Nuclear Biological and Chemical Defense Specialist.
MetaBank Government Relations Team

John Hagy
Senior Vice President
Head of Government and Industry Relations
jhagy@metabank.com

Elizabeth Gorz
Director of Government Relations
egorz@metabank.com
Agenda

- Federal regulatory and legislative landscape
- Prepaid policy issues
  - CFPB Prepaid Account Rule
  - Privacy and data security
- Fintech deep dive
Federal and State Regulatory Landscape - Prepaid Accounts

- OCC (including some, but not all, former OTS guidance and interpretations).
- FDIC (supervisory and deposit insurance)
- Federal Reserve (supervisory and Durbin)
- CFPB (Regulation E, including CARD Act and Prepaid Accounts Rule, UDAAP)
- FTC (UDAP)
- OFAC (terrorist financing)
- FinCEN (Prepaid Access Rule)
- IRS (health care payments products)
- FFIEC (information systems, BSA/AML, social media risk management)
- State Departments of Financial Institutions
- State Attorneys General
CFPB Prepaid Account Rule

• Effective April 1, 2019

• Generally adds consumer protections applicable to debit under Regulation E to prepaid accounts
  • Includes digital wallets and peer to peer transfer apps (PayPal, Venmo, and Square Cash)

• 5 major sections: new disclosures (long form, short form); access to transaction history; access to terms & conditions; error resolution/limited liability; overdraft/credit

• Remaining issues with the Rule
  • Prepaid Rule disclosures
    • Short Form, Long Form, Terms and Conditions prior to acquisition of account
      • Long Form redundant
    • Credit Offered in connection with prepaid account
Privacy and Data Security

• Background
  • GDPR- General Data Protection Regulation
    • Prescriptive regulation for EU related to how organizations must use and protect personal data
      • Use of data- fair, lawful, and transparent
      • Limitation of purpose, data and storage- collect only data necessary and delete
      • Data subject rights- right to ask what data has been collected
      • Consent to use for any other purpose
      • Right to delete
      • Data breach notification

• State Initiatives- States leading the way
  • California CCPA
  • Other states NY, NJ, VT, CO, WA and others
Privacy and Data Security

• Multiple Federal Initiatives Underway

  • Senate Commerce Committee:
    • Six members of the Committee (Chairman Wicker and Senators Thune, Moran, Cantwell, Blumenthal and Schatz) continue to work on draft privacy legislation
    • Indications are that there is considerable debate over both the scope of preemption of state laws and whether to authorize private rights of action for violations (e.g., class action lawsuits)
    • Indications are that the Committee will stay within its jurisdiction on proposed legislation – essentially entities overseen by the FTC – which does not include banks.
    • May also include data security mandates.

  • Senate Banking Committee:
    • The Committee held a few hearings to educate Members on privacy issues impacting financial institutions and consumers
    • The focus seems to be on data brokers especially those not regulated by the FCRA.
    • Likely to be additional hearings, but the timing and scope of these hearings is not clear

  • House Energy & Commerce Committee:
    • A “package” of bills is being drafted on privacy under the direction of Consumer Protection and Commerce Chairwoman Schakowsky
    • Timing for next steps and what exactly will be in the package of individual bills is unclear
Analysts have identified key trends for the future development of fintech

**Disruption and collaboration**
- Fintech startups provide services in different ways from established companies, changing what customers can expect and introducing new competition into the market
- Contrary to some predictions, fintech has not yet proven to revolutionize the financial services industry’s landscape, but businesses have partnered with new ones to provide services in innovative ways

**Inclusion**
- Policymakers, including Senate Banking Ranking Member Sherrod Brown (D-OH) have stated that fintech could allow underserved or unbanked individuals to access the financial system
- Tech-enabled business models have allowed financial services providers to more effectively and less expensively work with underbanked individuals
- On the other hand, fintech has been responsible for only part of the rise in financial inclusion, and some lending to underbanked individuals has been criticized as predatory

**Data protection**
- Many fintechs rely on significant amounts of data about the individuals they work with, raising the issue of how that data can be protected and how consumers’ privacy can be best protected
- The 2017 data breach of Equifax, a credit reporting agency, brought attention to the issue of data protection in the financial services industry
- As Congress works to regulate tech companies’ use of consumer data, this legislation will likely impact fintech

Sources: “Fintech by the numbers,” Deloitte; “Financial inclusion in the rich world,” The Economist, May 3, 2018; Claudia Ng, “Regulating Fintech: Addressing Challenges in Cybersecurity and Data Privacy,” Harvard Government Innovators Network, February 22, 2018; Sherrod Brown, opening statement at committee hearing, October 11, 2018
How Regulators are Treating FinTECH

Challenges in FinTech regulation

Cryptocurrency: regulators have struggled to define how digital currencies fit into existing frameworks (e.g. whether they are a security, a commodity, or a currency) and have also struggled to fight money laundering with these technologies.

Jurisdiction: regulatory authority over FinTECH can be unclear, because online businesses can easily service customers in other states or countries.

Interpreting old laws: some laws, such as the Community Reinvestment Act, require banks to work with communities, but this may not be applicable to FinTECHs that do not have a large physical presence.

How have regulators worked with FinTech businesses?

Engagement: one of the most common regulatory approaches is to make regulators available for advice or in-person meetings to clear up legal questions before businesses launch a product or service.

Education and information: regulators have worked to provide information to businesses, helping them know what is legal and how to operate in accordance with the law.

Sandboxing: banking regulators internationally, as well as state regulators in Arizona, have introduced sandboxes which allow FinTECHs some regulatory relief in exchange for limits on their risk.

Questions?
Innovation in Payments

Graham Mackenzie
Senior Director, Visa Public Sector Payment Solutions

Washington D.C.
June 11, 2019
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Agenda

• Introductions

• Innovations in Payments
  • Prepaid Debit
  • Digital Payments
  • “Push-Payments”

• Q&A

• Adjourn
**Visa**—one of the world’s largest retail electronic payment networks and most respected global brands

- **$8.2T** payments volume¹
- **2.6M ATMs** Globally²
- **$11.2T** total volume¹
- **3.3B** cards¹
- **124.3B** processed transactions¹
- **160 currencies¹**
- **53.9M** merchant locations¹
- **15,900** financial institution clients¹

¹ Visa Annual Report, 2018; 4Q18 operational performance data, branded volume and transactions, includes payment and cash transactions; VisaNet Fact Sheet 2018
² Visa ATM Product Office Estimates
Payments are a critical component of the challenging, rapidly changing, and complex world governments agencies operate in.....

"We can't be overdrawn. We still have more checks!"
Prepaid Debit
Prepaid Debit cards help governments lower costs (by eliminating paper checks), perform mission critical operations, and reach unbanked/underbanked constituents.

**Federal Disbursement Programs**

- U.S. Debit Card Program
- Stored Value Card Program (SVC)
- Direct Express
  - Social Security (SSA)
  - Supplemental Security Income (SSI)
- Veteran’s Administration
- Pensions (OPM)
- Black-Lung Disease
- Railroad Retirement

**State Disbursement Programs**

- Unemployment Insurance (UI)
- Child Support (CS)
- Adoption & Foster Care
- Housing Authority
- Temporary Assistance for Needy Families (TANF)
- Disaster Relief
- State Tax Refunds
- Workers Compensation
- Payroll

Visa has been partnering with U.S. Federal and State Government Agencies for more than 20 years to provide innovative payment solutions.
Prepaid Benefits to Government

- Allows government agencies to perform mission critical functions (i.e. access cash, make purchases, make payments)
- More secure and accountable than cash
- Eliminates the cost of printing and mailing paper checks
- Makes payment administration and compliance more efficient
- Increases convenience for pay-or and payee
- Lowers the risk of fraud
- Enables compliance with government “all electronic” mandates as well as legal requirements for timely distribution of payments
- Controls through merchant acceptance restrictions (if needed)
- Deliver funds during disasters, emergencies and when mail is disrupted or mail delivery not viable
Prepaid Benefits to Recipients

• Gives cardholders a safer, more convenient way to access and hold funds
  – Eliminates check-cashing fees and the risk of carrying large amounts of cash
  – Provides cash access at banks and ATMs, and cash back with purchase at many grocery and convenience stores
• Provides a faster, easier method to make purchases / payments
  – Enables flexibility to make purchases in-store, on-line, and by phone anywhere debit cards are accepted
• Promotes greater peace of mind with more reliable, predictable payments due to reduced risk of lost or delayed payments in the mail
  – Ensures uninterrupted payments during a disaster
• Facilitates financial inclusion and builds financial literacy skills
  – Improves money management and budgeting
Digital Payments
“Digital” technology enables a more effective and efficient payments infrastructure

Digital commerce is growing... but challenges exist

<table>
<thead>
<tr>
<th></th>
<th>2018</th>
<th>2023 (1)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Card Present</td>
<td>$4.9</td>
<td>$6.3</td>
</tr>
<tr>
<td>eCommerce</td>
<td>$2.1</td>
<td>$4.3</td>
</tr>
</tbody>
</table>

$7T+ to $10T+

CAGR (’18-23)

- High cart abandonment
  - Mobile: 81%
  - Desktop: 68% (2)

- Lower approval rates online
  - 86% eComm
  - 99% in-store (3)

- eCommerce fraud growing faster than sales
  - 30% vs. 16% (4)

Friction for customers with PAN entry

1) 2018 Actuals based only on Settled Payment Volume processed directly over Visa or certain Visa-Affiliated Networks. CNP defined as ECI codes 2, 5-9; CP defined as all other codes, which is a proxy for ecommerce and may not completely categorize ecommerce volume correctly due to regional differences in reporting. 2023 forecast growth for ecommerce is based off Visa’s 2012-2017 CAGR, averaged with eMarketer’s Worldwide Retail & Ecommerce Sales 2016-2021 forecast of growth. CP 2023 forecast based solely off Visa’s 2012-2017 historical growth. Forward-looking estimates are not guarantees of future performance and should be used for educational purposes only. 2) eMarketer, 2017, Barilliance December 2017, 3) Visa authorizations, 2017 Q4, Visa branded cards on Visa Networks, including Interlink, 4) https://www.experian.com/blogs/ask-experian/the-state-of-online-shopping-fraud/
Payment “tokens” enhance the security of digital payments across a variety of form factors.

**Removes Primary Account Numbers (i.e. PAN’s)**
Replaces a traditional card account number with a unique payment token/digital account number.

**Dynamic Data**
Augmented Data for Better Decisioning.

**Domain Controls**
Restricts the use of a payment token by device, merchant, transaction type, or channel.
“Tokens” Offer Rich Benefits

Card art at check-out builds confidence in consumers, reduces cart abandonment.

Richer data can improve risk decisioning for improved authorization rates.

Lifecycle management ensures payment credentials always up-to-date.

Visa Trusted Device supports global security regulations and simplifies purchase.

Network Hub Push Provisioning allows for new marketing channels and simple card loading.

IN ADDITION TO PROTECTING CREDENTIALS, TOKENS ADD VALUE TO THE PAYMENTS SYSTEM
“Push-Payments” (aka Visa Direct)
What are Push-Payments?

Push-Payments reverse the transaction flow of funds allowing businesses and governments to push payments to bank accounts using debit card numbers.
How “Push-Payments” / Visa Direct works......
“Push-Payments” leverage existing card network infrastructure

Billions of cards enabled for real-time\(^1\) payments

2B+ cards globally

Millions of connections already established

13,000+ issuers

3,000+ acquirers

44M merchants

Immediately capture the shift to digital

P2P

Disbursements

G2C


Note: All brand names and logos are the property of their respective owners, are used for identification purposes only, and do not imply product endorsement or affiliation with Visa. All brand names and logos are used only as a reference example.

\(^1\) Actual fund availability depends on receiving financial institution and region. Visa requires fast-funds enabled issuers to make funds available to their recipient cardholders within a maximum of 30 minutes of approving the transaction. Please refer to your Visa representative and the Visa Direct Original Credit Transaction Global Implementation Guide for more information.
One solution, multiple applications

Faster Settlement
- On Demand
- Marketplaces
- Merchant Settlement
- SMB Invoicing
- Contract Staffing
- Alternative Lending
- Affiliate Marketing
- Digital Content

Check Replacement
- Insurance
- Healthcare
- Government
- Lotteries & Gaming
- Loyalty, Rebates, Trials
- Travel & Entertainment
- Education
- Expense Reimbursement

Source: Visa & Aite Group, Funds Disbursements Research, Estimates 2017
Research indicates “Push Payments” are the preferred disbursement option for consumers

**Consumer Disbursement Preferences**

Push to Card vs. Check

- Deposit to Card: 86%
- Request a Check: 14%

Push to Card vs. ACH vs. Check

- Deposit to Card: 61%
- Bank ACH: 33%
- Request a Check: 6%

Source: Visa Digital Disbursements: Consumer Preferences Survey, 2017
Controls and risk management apply to all parties in the ecosystem

Visa provides controls, guidelines, and best practices for all parties

1. Merchants
   - Leverage existing Chargeback and fraud monitoring programs
   - KYC/AML
   - PCI compliance

2. Service Providers and Processors
   - 3rd Party Agent registration and due diligence
   - PCI compliance

3. Acquirers
   - AML
   - Global Acquirer Risk Program Standards
   - PCI compliance

4. Visa
   - Trxn and Velocity limits:
     - 1. $50,000/trxn domestic FD
     - 2. Velocity Controls
       - 1 day: $100K; 150 Trxns
       - 7 day: $250K; 250 Trxns
       - 30 day: $500K; 750 Trxns
   - AML Compliance monitoring
   - Risk and Fraud management
   - Additional tools available to merchants/issuers

5. Issuers
   - Issuers can set their own trxn and velocity limits
   - Issuers to implement their own risk and fraud management programs/systems specific to OCTs

\[1\text{Limits may differ in some countries. See OCT GIG for country level limits where they exist.}\]
Visa Direct / “Push-Payments” product attributes

Card Types
- Debit
- GPR Prepaid
- Credit

Coverage
- 99% of US Visa Cards enabled
- 95% of Fast Funds (<30mins)
- Some regional banks and credit unions (next day)

Processing
- Issuers return instant approve/decline decision
- Full funds sent on approval
- Settlement occurs each business day

Limits
- $50K per TRXN (Visa)*
- Recommended TRXN size <$10K
- Velocity controls (Visa):
  - 1 day: $100K
  - 7 days: $250K
  - 30 days: $500K

Disputes
- Limited to: Non receipt of funds, duplicates or processing errors, wrong amount or account.
- Submit proof of posting request, good faith adjustment process

Rules
- An Issuer must accept incoming OCT TRXN unless prohibited by applicable laws or regulations.
- OCT’s require “Funds Disbursement” BAI codes to provide information on the transaction.

Risk Controls
- Know-Your-Customer (KYC) and Anti-Money Laundering Control procedures (AML) on all senders and must screen both senders and recipients against relevant watch lists (OFAC)

Reporting
- Acquirers submit Visa and MC Network registration forms to get Client program approved
- Acquirer provides backend settlement and reconciliation services

*Note: Some recipient Issuers may set their own system limits on cards or DDA accounts below card network limits
User-interface options are configurable based on your needs

How will you engage the customer to collect their card information?

Customer Portal

- Client hosted page
- Alert sent to recipient to direct them to the web form to select payout method
- Recipient has flexibility to add a card, add a bank or request check

Agent Portal

- CS Agent or Claims Assessor uses widget on website or mobile app to capture Card
- Widget generates token, removing PCI
- Client uses back-end API to submit the OCT transaction

Mobile App

- Most flexible option to design web/mobile experience
- APIs capture PAN and submit OCT to VisaNet
- PCI compliant -> Utilizes Token
- More development work required to launch and maintain

¹Actual fund availability varies by financial institution. Visa requires U.S. issuers to make funds available to its cardholders within a maximum of 30 minutes of approving the transaction.
Thank You!
Money Network Mobile Application - Demo

- **Quick Balance View**
  Check balance and transaction history without login

- **Touch ID**
  Login using touch ID on your phone

- **Multi-Factor Authentication**
  Enhanced security with one-time passcode

- **Alerts**
  Notifications for balance, deposits, withdrawals and more

- **Send Money P2P**
  Send money quickly to others

- **Transfer Money via ACH**
  Transfer to a bank account

- **ATM Locator**
  Find nearby surcharge free ATMs

- **Check Cashing Locator**
  Find nearby free check cashing locations

- **Card Lock/Unlock**
  Immediately put card on hold and turn on again
Money Network Website - Demo

Welcome

History
- Account Activity

Money In
- Direct Deposit
- Cash Loads

Money Out
- Send Money to a Friend
- Transfers in U.S.
- Transfers Outside U.S.
- Checks
- Secondary Cards

My Account
- My Profile
- Card Controls
- Account Alerts
- My Preferences
- Fee Schedule
- Terms and Conditions

Offers
- Upgrade

Recent Activity
08/15/2019 01:29:03
Automatic Transfer to Books
Amount: ($1.00)

05/31/2019 04:14:30
P2P fund Transfer to Tamiko
Amount: ($5.00)

05/23/2019 08:40:41
P2P fund Transfer to Pam Stanford
Amount: ($25.00)
<table>
<thead>
<tr>
<th>Report Name</th>
<th>Description</th>
<th>Agency Programs</th>
<th>Cardholder Programs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Account Balance By Program</td>
<td>List of the current account balances for the selected program</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Account Funding Log By Program</td>
<td>List of the funding transactions to accounts for selected program(s) for up to 3 months of data within the prior 2 years</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Account Status Report</td>
<td>List of accounts for a program and the status of those accounts as of the preceding day. Excludes account balance details.</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Authorization Data</td>
<td>Subset of authorization fields in the Authorization data set for a program for up to 3 months of data within the 2 prior years</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Bulk and Batch Order</td>
<td>List of line item details for Bulk and Batchloader orders for the given program(s) and date range. Data contained in this report is the same info as each Bulk and Batchloader file submitted.</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Card Activation Summary</td>
<td>List of cards that were activated within the selected date range</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Card Data</td>
<td>Subset of card fields from records in the card data set in a program with issue dates within the given date range, as of the previous day</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Card Production Details</td>
<td>Lists card embossing records for new cards created for the selected program and Action Type in the date range. Identifies the cards sent to the embossing process for production and shipping.</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Card Status Activity</td>
<td>Card status updates for selected date range and program(s). Includes only cards that had an activation change during the selected date range.</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Corporate Account Funding</td>
<td>Details of transactions that were performed using the Corporate Funding Account for selected program(s) and date range.</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Corporate Funding Summary</td>
<td>Provides summary information on the corporate funding account</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Inactivity Report With Account Balance Field</td>
<td>List of all inactive cardholder accounts based on the selected number of days of inactivity. The results are as of the previous day.</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Inactivity Report Without Account Balance Field</td>
<td>List of all inactive cardholder accounts based on the selected number of days of inactivity. The results are as of the previous day.</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Posted Transaction Data</td>
<td>A subset of transaction data fields in the Posted Transaction data set of the selected program(s) for up to 3 months of data within the 2 prior years</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Registration By Program</td>
<td>List of enrollment details for selected program(s) within a specified account registration period within the life of the program</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Transaction Summary By Trans Type</td>
<td>Posted transaction activity for the selected program(s) for a given time period, rolled up by transaction category and transaction type.</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>
## Money Network Application Enhancement Roadmap

### Platform Stability
- **2018**: Migrated to Linux from Solaris
- **1Q2019**: Add Application Server Capacity Upgrade to Wildfly 10
- **2Q2019**: DB Optimization - Partition Large Tables
- **3Q2019**: Upgrade Oracle and remove backward compatibility
- **4Q2019**: Replace Jreports

### Platform Modernization
- **Voltage Encryption**: Centrify for Sidekick Retired DMART
- **Built Restful APIs**: Adopted In-house Cloud Web Apps using AngularJS
- **2018**: Migrated to Linux from Solaris
- **1Q2019**: Add Application Server Capacity Upgrade to Wildfly 10
- **2Q2019**: DB Optimization - Partition Large Tables
- **3Q2019**: Upgrade Oracle and remove backward compatibility
- **4Q2019**: Replace Jreports

### Operations Modernization
- **Sidekick basic call center functions**: Pending deposit and transaction announcement on IVR
- **Integrated disputes with EASE**: Sidekick Phase 1.5
- **2018**: Migrated to Linux from Solaris
- **1Q2019**: Add Application Server Capacity Upgrade to Wildfly 10
- **2Q2019**: DB Optimization - Partition Large Tables
- **3Q2019**: Upgrade Oracle and remove backward compatibility
- **4Q2019**: Replace Jreports

### Cardholder and Client Experience
- **Payment portal – UST phase 1**: B2C Digital Disbursements - Portal
- **Pending deposit and transaction announcement on IVR**: B2C Digital Disbursements – APIs & Batch
- **Integrated disputes with EASE**: Digital Wallet enablement Push Provisioning
- **Sidekick basic call center functions**: Personal Financial Mgmt.
- **Sidekick Phase 1.5**: Card-less ATM Consumer Website refresh
- **2018**: Migrated to Linux from Solaris
- **1Q2019**: Add Application Server Capacity Upgrade to Wildfly 10
- **2Q2019**: DB Optimization - Partition Large Tables
- **3Q2019**: Upgrade Oracle and remove backward compatibility
- **4Q2019**: Replace Jreports

### Fraud Prevention
- **Fraud Score rolled out in parallel mode**: Functions e.g. PIN reset Verification Notifications to cardholders
- **Self-Service rollout continuation 2-way fraud messaging to cardholders**: Integration of Disputes data Integrations with Deposit Data
- **Sidekick basic call center functions**: Self-Service of Advanced functions Threatmetrix integration
- **Sidekick Phase 1.5**: Rollout of dashboards to Clients
- **2018**: Migrated to Linux from Solaris
- **1Q2019**: Add Application Server Capacity Upgrade to Wildfly 10
- **2Q2019**: DB Optimization - Partition Large Tables
- **3Q2019**: Upgrade Oracle and remove backward compatibility
- **4Q2019**: Replace Jreports

### Big-Data
- **Automation of Finance Reports Big Data dashboards**: Finish Automating dashboards for Product Functions OLRPT Data sourcing to Hadoop
- **Start pilot rollout to clients**: Rollout of dashboards to Clients
- **Fraud Score rolled out in parallel mode**: Functions e.g. PIN reset Verification Notifications to cardholders
- **Sidekick basic call center functions**: Integration of Disputes data Integrations with Deposit Data
- **Sidekick Phase 1.5**: Rollout of dashboards to Clients
- **2018**: Migrated to Linux from Solaris
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