Maximizing the Federal Reserve’s Financial Services

Robert Williams, Product Development Director
Jorge Jimenez, Product Development Director
Retail Payments Office
Federal Reserve Financial Services
Federal Reserve – Who we are

**Monetary policy**
Goals...Maximum economic growth and employment; Stable prices

**Bank supervision and regulation**
Goals...Foster financial system stability by promoting safety and soundness of independent financial institutions; addressing issues of systemic risk

**Financial services**
Goals...Safety, accessibility, and efficiency in the payment system
“In 2014, the average daily value of transactions processed by Federal Reserve Financial Services was $4.8 trillion, which is roughly $56 million per second.”

Annual average daily volume and value for 2014

<table>
<thead>
<tr>
<th>Service</th>
<th>Avg Daily Volume</th>
<th>Avg Daily Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fedwire Funds</td>
<td>537.9 Thousand</td>
<td>$3.5 Trillion</td>
</tr>
<tr>
<td>Fedwire Securities</td>
<td>67.9 Thousand</td>
<td>$1.1 Trillion</td>
</tr>
<tr>
<td>FedACH</td>
<td>52.3 Million</td>
<td>$98.6 Billion</td>
</tr>
<tr>
<td>Check</td>
<td>23.6 Million</td>
<td>$33.2 Billion</td>
</tr>
<tr>
<td>National Settlement</td>
<td>2,630</td>
<td>$69.1 Billion</td>
</tr>
</tbody>
</table>

Source: Federal Reserve Board of Governors
FedLine Access® Solutions

FedLine Web

- Informational services for:
  - Check Services
  - FedCash® Services
  - FedACH® (information)
  - Accounting (AMI)
  - Service Charge Information
- Limited transactional services for the following:
  - FedCash Ordering
  - FedACH Returns and NOCs
  - Check 21

FedLine Advantage

- Informational and transactional services for:
  - FedACH
  - Fedwire® Funds
  - Fedwire Securities
  - National Settlement
  - All FedLine Web Services
Federal Reserve Financial Services
Key Aspects of Fedwire Funds Services

- A real-time, gross settlement system
- Typically used for large-dollar electronic payments
- Settlement through Master Account with the Federal Reserve
- Provides you with:
  - Speed, Reliability, Security, Control
- For additional information, visit our website http://www.frbservices.org/fedwire/index.html
Federal Reserve Financial Services

Key Aspects of FedACH Services

- Online transaction services and file transmission
- Immediacy of funds is not a concern
  - Typically not available the same day
- FedGlobal® services offers an efficient means for sending cross-border ACH credit payments
- Requires a FedLine Advantage® connection to originate and receive ACH files
- Access risk management tools

A Glance @ FedACH Services
Federal Reserve Financial Services

Key Aspects of FedACH Services

- FedACH Information services
- FedACH Risk® Management Suite
- FedPayments® Reporter Services
- FedACH SameDay
- The Fed links you to more:
  - Innovative, seamlessly integrated, domestic and FedGlobal℠ ACH services
  - Access via FedLine Access Solutions
  - Information services
  - Transaction services
- For additional information, visit our website
  http://www.frbservices.org/fedach/index.html

A Glance @ FedACH Services cont
Key Aspects of Check Services

- Check Services offer you a suite of electronic check processing options
- Check 21-enabled services provide a single point of contact and entry
- Online Check 21-enabled Services
- Online Check Adjustments
- For additional information, visit our website http://www.frbservices.org/check/index.html

A Glance @ Check Services
Key Aspects of FedCash Services

• FedCash Services (free) requires:
  – A settlement option
  – FedLine Web access solution
  – Arrangement with an armored carrier
• Online access for cash ordering
• Recurring order capabilities
• Near real-time reports on orders
• Detailed management information reports on historical transaction activity
• FedCash Access Manager
• For additional information, visit our website
  http://www.frbservices.org/fedcash/index.html

A Glance @ FedCash Services
Federal Reserve Financial Services

Key Aspects of Accounting Services

- Variety of reports and inquiry services
- Online, real-time critical information about Fed account
- Account Management Information (AMI) Services
  - Daily statement of account
    - Balance Fed account – avoid overnight overdraft
    - Receive early in the day
  - Receive account information throughout the day
- Clear, easy-to-read formatted information

A Glance @ Accounting Services
Key Aspects of Accounting Services

• Risk management information and Daylight Overdraft Reports
• Request real-time inquiry services, drill-down capabilities
• Generate summary and detail account-related reports
• Automatic notifications and reports
  – e.g. daily statement of account
• Service Charge Information (SCI)
  – Monthly summary statement of service charges
• For additional information, visit our website
  http://www.frbservices.org/accountservices/index.html

A Glance @ Accounting Services
What is the ACH?

- The automated clearing house (ACH) is a batch processing, store and forward system. Participants leverage the ACH Network to exchange ACH files containing batches of transactions.
ACHI Participant: Originator

- An **Originator** is a person or company responsible for obtaining an authorization (e.g. written/signed, electronic signature, verbal, etc.) from the Receiver prior to initiating an ACH payment instruction.
FedPayments® Reporter Services

Delivery options include encrypted e-mail and Online Banking

on-us / on-we Transactions

Originator

ODFI

FedACH

RDFI

Receiver

AR
ACH Participant: ODFI

- An **Originating Depository Financial Institution** (ODFI) receives ACH payment instructions from Originators, creates batches of like-payments, and transmits them to the ACH Operator for further processing.
FedACH Risk® Origination Monitoring Service

How Does the Service Work?

Originating Depository Financial Institution

ACH File

FedACH

Batches

Credit Cap($): OK
Debit Cap ($): Breach

Affected Batches: Pended

Log-in to FedLine®: Release/Reject?

Generate E-Mail Notification

FedMail®

ACH Operator - Risk Edits
ACH Participant: RDFI

- **A Receiving Depository Financial Institution** (RDFI) receives ACH payment instructions from an ACH Operator and is responsible for posting (or returning) entries to its customers accounts in a timely manner.
FedACH Risk® RDFI Alert Service

How Does the Service Work?

1. **ACH Operator - Risk Edits**
   - ACH File
   - File, Batch, or Item Criteria Set: Breach

2. **FedMail®**
   - Generate E-Mail Notification

3. **Receiving Depository Financial Institution**
   - Your Customer
ACH Participant: Receiver

- A **Receiver** is a person or a company that maintains an account with the RDFI and is the recipient of the ACH payment instruction.
FedPayments® Reporter Services

FedPayments® Reporter

Originator -> ODFI -> FedACH

FedACH -> RDFI -> Receiver

Delivery options include encrypted e-mail and Online Banking

on-us / on-we Transactions

AP -> FedPayments® Reporter -> RDFI

AR
P2P- Scenario

• What do you if somebody needs to send $300 today Monday to a family member in NY by Wednesday?
• On Line Banking?
• Wire?
• Check?
• Standard ACH?
• SameDay ACH?
P2P

- There not necessarily a direct relationship between the method of payments utilized in the back-end and price
- User experience and value should be the consideration not
My FedDirectory®

FEDERAL RESERVE BANK SERVICES

BROWSE BY TOPIC
Service Offerings
Service and Access Setup
Operations Resources
Events and Education
News and Communications
Help

POPULAR CONTENT
Rules and Regulations
Forms
Business Continuity
Service Fees
Holiday Schedules
Industry Links

MY QUICK LINKS
Access Solutions - FedLine®
Account Services
Check
FedACH®
FedCash®
Fedwire®
National Settlement
Treasurer

Latest News
07/01/2010
- Fedfocus – July 2010: Bank revenues and fraud detection: A marriage made in heaven?
06/29/2010
- TDF Auction Offering Results of June 28, 2010 Auction 1D AZ (rev)
06/28/2010
- Consolidated toll-free number for Check Services Customer Support (PDF)

MORE NEWS

My FedDirectory®
Enter your institution’s ABA number and click “GO” for a customized list of Federal Reserve Financial Services support contacts.

E-Payments Routing Directory

Search for FedACH participants by ABA:

My FedDirectory for Lake Michigan Credit Union
ABA: 272480678

The following Federal Reserve Financial Services contacts are available to you listed above in using our services.

Account Executive
Name: Tyler Smith
Phone: (516) 851-4760
Email: Tyler.Smith@chi.frb.org

Check Services
Check Support
General: (877) FRB-CHKS or (312) 372-2457
Questions: (877) 372-2457
LDR1N: (877) FRB-CHKS or (312) 372-2457

Paper Check Processing
Processing Site: For regular mail deliveries:
Addresses: Federal Reserve Bank of Cleveland
P.O. Box 6387
Cleveland, OH 44114

For deliveries that need a signature:
Federal Reserve Bank of Cleveland
Check Department:
1455 East Sixth Street
Cleveland, OH 44114

Check Adjustments
Address:
FedGlobal ACH

Federal Reserve Bank of Atlanta
Retail Payments Office
Disclaimer

• The views presented are those of the individual presenter and do not reflect the views of the Federal Reserve Bank of Atlanta, the Retail Payments Office, the Board of Governors, or any person or entity.

• The content of this presentation is intended to serve as general information and not as legal counsel or as expert advice about IT. If the issues in this presentation interest you, you should consult your own legal counsel and/or IT professional.
Functional Flow of domestic ACH

- Corporate Back-office
  - FTP, VPN, SSL
- Online Banking Server
  - Intranet, Extranet
  - Core Banking
- Originating Software Server/Host
- FED ACH
- Fedline

STAGE 0
STAGE 1
STAGE 2
Adding a twist
Expanding ACH

- Workers Remittances
- P2P

- International Business Payments

- International ACH
A new way to do consumer transfers

Sue Peterson, EVP, Chief Retail Banking Officer, MB Financial Bank.

“FedGlobal ACH allows us to provide an efficient and innovative service to our retail customers, as well allowing us to reach out to the unbanked and underserved with a solution that meets their needs. Additionally the transparency the Fed provides has made it easy for us to meet our compliance obligations”
A new way to do Business transfers

Robert E. Lajoie, VP, Product Management
Treasury Solutions, RBS Citizens

“Our customer sent 55000 payments to Holland in one day. Each Payment averaged 80 Euros. With the traditional payment channels we would have spent that much in deductions alone. FedGlobal allowed us to send payments with no intermediary deductions and negligible beneficiary deductions. It is a game changer for the industry”
FedGlobal ACH benefits

- Improves transparency for customers
- No Beneficiary Deductions
- Lower Costs
- FI can also handle own exchange
- Consistent Delivery Times
- True Innovation in Banking
- International Offering
- Accessible to all institutions regardless of size
- Best Foreign Exchanges
Process Flow Example

ODFI

ACH fee + surcharge

FedGlobal ACH
11:00 a.m.
Day 0

No deductions

Foreign Gateway Operator

No deductions

RDFI

Wholesale FX rate

D+1 Canada, Mexico, LATAM
D+2 Europe EUR, Panama
D+3 Europe GBP/CHF

Option 2: F3X Settlement

<table>
<thead>
<tr>
<th>Part III: Transaction Information/Información de la Transferencia</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Sending Country (Pais de envio)</strong></td>
</tr>
<tr>
<td><strong>Date of Transfer:</strong> 11/5/2012</td>
</tr>
<tr>
<td><strong>Total:</strong> 500.00 (USD)</td>
</tr>
<tr>
<td><strong>Transfer Taxes and Fees:</strong> 5.00 (USD)</td>
</tr>
<tr>
<td><strong>Transfer Amount:</strong> 495.00 (USD)</td>
</tr>
<tr>
<td><strong>Receiving Country (Pais que recibe)</strong></td>
</tr>
<tr>
<td><strong>Exchange Rate</strong>: 1 USD = 13.0113 (MXN)</td>
</tr>
<tr>
<td><strong>Funds Availability:</strong> 11/6/2012</td>
</tr>
<tr>
<td><strong>Transfer Amount</strong>: 6,440.59 (USD)</td>
</tr>
<tr>
<td><strong>Other Fees and Taxes:</strong> - (MXN)</td>
</tr>
<tr>
<td><strong>Total to Recipient</strong>: 6,440.59 (MXN)</td>
</tr>
</tbody>
</table>

Deliver to Account or Cash-out
2014 FedGlobal ACH Survey

- Concerns about foreign payment rules: 86%
- Compliance Concerns: 79%
- Need to provide Dodd-Frank 1073 disclosures: 74%
- Cost of offering > than revenue: 66%
- Need for internal training & marketing: 59%
- No IAT origination capability: 51%
- Hard to identify potential customers: 40%
- Need more than one provider to reach all countries: 40%
- Competition with other internal bank offerings: 18%
Why Lack of ACH Origination

- No customer demand: 36%
- Lack of origination training/knowledge: 35%
- High upfront cost: 29%
- Lack of technical expertise: 27%
- High ongoing cost: 22%
- Other: 11%
# FedGlobal® Features

<table>
<thead>
<tr>
<th>Reg. E Requirements*</th>
<th>Mexico</th>
<th>Canada</th>
<th>Panama</th>
<th>Lat. Am.</th>
<th>Europe</th>
</tr>
</thead>
<tbody>
<tr>
<td>FX</td>
<td>Estimate</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Fees</td>
<td>Estimate</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Taxes</td>
<td>Estimate</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Availability</td>
<td>Exact</td>
<td>✔</td>
<td>✔⁺</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Error Resolution</td>
<td>Investigation**</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
</tbody>
</table>

*Reg. E Requirements:
- FX: Foreign Exchange
- Fees
- Taxes
- Availability
- Error Resolution

† Indicates partial availability.
## Transaction Information

### Part III: Transaction Information/Informacion de la Transferencia

<table>
<thead>
<tr>
<th>Sending Country (Pais de envio)</th>
<th>Receiving Country (Pais que recibe)</th>
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<td><em><em>Exchange Rate</em>: 1 USD = 13.0113 (MXN)</em>*</td>
</tr>
<tr>
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<td><strong>Funds Availability:</strong> 11/6/2012</td>
</tr>
<tr>
<td><strong>Transfer Taxes and Fees:</strong> 5.00 (USD)</td>
<td><em><em>Transfer Amount</em>: 6,440.59 (MXN)</em>*</td>
</tr>
<tr>
<td><strong>Transfer Amount:</strong> 495.00 (USD)</td>
<td><strong>Other Fees and Taxes:</strong> - (MXN)</td>
</tr>
<tr>
<td><strong>Estimate of Amount to be Received:</strong></td>
<td><em><em>Total to Recipient</em>: 6,440.59 (MXN)</em>*</td>
</tr>
</tbody>
</table>

* *Date applied for estimate/Estima hecha con datos del: 11/01/2012*
So how do you route the Payments?
Domestic vs International ACH

In domestic transactions you can use US ABA# and Account number, but what about International transactions?

Image Source Page: http://howtogeekon.com/2010/05/18/fit/square-peg-in-a-round-hole_0565/
International

A2A

Gateway RT and

Canada: CPA # and Account number
Panama: RT# and Account number
Mexico: ABM# and CLABE (18 digits)
Europe: BIC# and IBAN
International

A2R

Gateway RT and Mexico: 647R (ABM)
Password (acc#)

Latin America: CO00212336750000023642
(table from fedglobala2r.com)
525565656511
(phone number)
### IAT - International ACH Transactions

<table>
<thead>
<tr>
<th>Company:</th>
<th>&lt;Enter Financial Institution Name&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Batch Header Description:</td>
<td>Remittance</td>
</tr>
<tr>
<td>Current Date:</td>
<td>4/17/2012</td>
</tr>
<tr>
<td>ISO Destination Country:</td>
<td>MX-Mexico</td>
</tr>
<tr>
<td>Origination Currency:</td>
<td>USD-US Dollar</td>
</tr>
<tr>
<td>Company ID:</td>
<td>&lt;Enter Routing Transit Number&gt;</td>
</tr>
<tr>
<td>FXC Indicator:</td>
<td>Fixed-to-Variable</td>
</tr>
<tr>
<td>FXC Reference Indicator:</td>
<td>Space Filled</td>
</tr>
<tr>
<td>FXC Reference:</td>
<td></td>
</tr>
<tr>
<td>Destination Currency:</td>
<td>MXN-Mexican pesos</td>
</tr>
</tbody>
</table>

### Payment Information

| Transaction Amount: | $ 331.00 |
| Tran Code: | 22 - Checking Credit |
| Tran Type: | Deposit |

**Gateway FI:** 091050700

**Foreign Account:** 111111111

### Originator Information

| ODFI Name: | <Enter Financial Institution Name> |
| ODFI ID: | <Enter Routing Transit Number> |
| Originator Name: | Hector Gonzalez |
| Originator Address: | 3001 Davenport Rd |
| City: | Duluth |
| Postal Code: | 30096 |

| ODFI Country: | US-USA |
| ODFI Qualifier: | 01 |
| State: | Select One |
| Country: | US |

### Receiver Information

| RDFI Name: | Abc Capital (Banco Amigo) |
| RDFI ID: | 138 |
| Receiver Name: | Hubertus Schubert |
| Receiver Address: | 21 Calle Choluteca |
| City: | Chapala |
| Postal Code: | 30096 |

| RDFI Country: | MX-Mexico |
| RDFI Qualifier: | 01 |
| State: | Jalisco |
| Country: | MX |

### Remittance Information

| Payment Information: | DOB 082574\PHN 55555555555 |

---
How does the IAT Work?

Account number abroad
FedGlobal Formatting Aid & Other tools
### Part I: Sender Information/Informacion de Quien Envia

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>First/Middle Name</td>
<td>ex. Maria Luisa or Corporation X</td>
</tr>
<tr>
<td>Last Name</td>
<td>(2 last names if available/2 apellidos si disponibles)</td>
</tr>
<tr>
<td>Street Address</td>
<td>ex. 100 Pasadena Rd</td>
</tr>
<tr>
<td>City</td>
<td>ex. San Diego</td>
</tr>
<tr>
<td>Country</td>
<td>US</td>
</tr>
<tr>
<td>Account Number</td>
<td>ex. 254562145</td>
</tr>
<tr>
<td>ID Verification</td>
<td>Select One</td>
</tr>
</tbody>
</table>

### Part II: Recipient Information/Informacion de Quien Recibe

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>First/Middle Name</td>
<td>ex. Maria Luisa or Corporation X</td>
</tr>
<tr>
<td>Last Name</td>
<td>(2 last names if on ID/2 apellidos si sobre cedula)</td>
</tr>
<tr>
<td>Street Address</td>
<td>ex. Calle Mayor 21</td>
</tr>
<tr>
<td>City</td>
<td>ex. Chapala</td>
</tr>
<tr>
<td>Country</td>
<td>Mexico</td>
</tr>
<tr>
<td>Bank Name</td>
<td>Banamex</td>
</tr>
<tr>
<td>Account Number</td>
<td>Banco Ahorro Famsa</td>
</tr>
<tr>
<td>Postal Code</td>
<td>ex. 90025</td>
</tr>
</tbody>
</table>

### Part III: Transaction Information

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Request Time</td>
<td>16:58:08</td>
</tr>
<tr>
<td>Routing Transit Number</td>
<td>123456789</td>
</tr>
<tr>
<td>Company ID</td>
<td>N/A for consumers</td>
</tr>
<tr>
<td>Date of Birth</td>
<td>MM/DD/YYYY</td>
</tr>
<tr>
<td>Telephone Number</td>
<td>ex. 19876543219</td>
</tr>
<tr>
<td>Email</td>
<td><a href="mailto:jose12@gmail.com">jose12@gmail.com</a></td>
</tr>
<tr>
<td>State/Province</td>
<td>ex. Jalisco</td>
</tr>
<tr>
<td>Routing Transit Number</td>
<td>002</td>
</tr>
<tr>
<td>Card Number</td>
<td>9515015015015011</td>
</tr>
<tr>
<td>Sending Country (Pais de envio)</td>
<td>Receiving Country (Pais que recibe)</td>
</tr>
<tr>
<td>-------------------------------</td>
<td>-------------------------------------</td>
</tr>
<tr>
<td><strong>Country:</strong> Guatemala</td>
<td><strong>Postal Code:</strong> ex. 235645</td>
</tr>
<tr>
<td><strong>Bank Name:</strong> Banco Industrial</td>
<td><strong>Routing Transit Number:</strong> GT008400085008400931</td>
</tr>
<tr>
<td><strong>Payout Location/Oficina de Pago (from fedglobala2r.com)</strong></td>
<td><strong>Office (Oficina):</strong> Agente Distribuidora El Porvenir</td>
</tr>
<tr>
<td>State (Estado): El Progreso</td>
<td>City (Ciudad): Morazan</td>
</tr>
<tr>
<td><strong>Street Address:</strong> Calle Principal Aldea Marajuma</td>
<td></td>
</tr>
<tr>
<td><strong>Part III: Transaction Information/Informacion de la Transferencia</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Date of Transfer:</strong> 3/16/2015</td>
<td><strong>Date Available:</strong> 3/17/2015</td>
</tr>
<tr>
<td><strong>Transfer Amount:</strong> 500.00 (USD)</td>
<td><strong>Transfer Amount:</strong> 3,697.65 (GTQ)</td>
</tr>
<tr>
<td><strong>Transfer Taxes:</strong> - (USD)</td>
<td><strong>Estimated Other Fees:</strong> - (GTQ)</td>
</tr>
<tr>
<td><strong>Transfer Fees:</strong> 9.00 (USD)</td>
<td><strong>Total to Recipient:</strong> 3,697.65 (GTQ)</td>
</tr>
<tr>
<td><strong>Total:</strong> 509.00 (USD)</td>
<td></td>
</tr>
</tbody>
</table>

* Date used for estimating exchange rate/Estimacion hecha con datos del: 03/16/2015

Recipient may receive less due to fees charged by the recipient’s bank and foreign taxes
SENDER:
Matt Kerseneth
29 Delta General Pk
Charlotte, NC, 28203, USA
555-555-5555

RECIPIENT:
Jimmy Johnson
48 Locoe Lane
Charlotte, North Carolina, 28203
444-444-4444

PICK-UP LOCATION
Any branch of SOCIETE GENERALE (CANADA)

Date Available: 09/17/2013

Transfer Amount: $500
Transfer Fees: $0
Transfer Tax: $0
Total: $500

Estimated Exchange: US$1.00 = 1.0274 CAD

Other Fees: 0 CAD
Total to Recipient: 513.70 CAD

Recipient may receive less due to fees charged by recipient's
bank and foreign taxes.

You have a right to dispute errors in your transaction. If you
think there is an error, contact us within 100 days at 555-555-5555 or
bfinancial.com. You can also contact us for a
written explanation of your rights.

You can cancel for a full refund within 30 minutes of payment,
unless the funds have been picked up or deposited. For
questions or complaints about our institution contact:

For questions or complaints about BB FINANCIAL, contact:
Alabama Banking Department
404-438-100
www.banking.alabama.gov

Consumer Financial Protection Bureau
855-411-2372
855-723-2372 (TTY/TDD)
www.consumerfinance.gov

FedGlobal ACH
Formatting Aid and
Model Receipt A32
New Developments

• Directo a Mexico brand and consular support
• New Remote account opening in Mexico
• Linked Accounts and Phone # in Mexico
• FFA enhancements
• On-line banking integration
• IC Wallet ON Platform
Thank you!

Robert Williams
Robert.Williams@atl.frb.org

Jorge Jimenez
Jorge.jimenez@atl.frb.org