The ACH: Today and Tomorrow

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Samantha Carrier, Senior Director, NACHA

Monday, February 25th 10:30 am - Noon
AGENDA

• NACHA and the ACH Network
  – NACHA’s role
  – The Network: what it is, how it works and who we serve

• Faster Payments – Speeding up the Network
  – Same Day ACH: what exists today and the future

• Innovation – New Initiatives
  – Mobile App – (Direct Deposit App)
  – APIs and NACHA’s work under Afinis

• Merchant Impact – What does it all mean for me?
THE ACH NETWORK – WHO WE ARE
NACHA and Its Interrelated Roles
Strategic Direction Statements — for the ACH Network and NACHA

• The ACH Network enables end users to easily make payments through a high-quality, ubiquitous payment system that securely and efficiently moves money and information directly from one bank account to another.

• NACHA enables financial services industry stakeholders to shape and benefit from common rules sets and standards for ACH and other transaction types through its expertise in convening diverse parties in rulemaking, standards development, governance and education.
NACHA – The Electronic Payments Association

2017 NACHA Operating Rules & Guidelines

- Provides a common set of rules and formats
- Establishes the legal foundation for the ACH Network
- Creates certainty and interoperability
- Defines roles and responsibilities

www.nacha.org

https://www.nacha.org/rules
NACHA has expertise in convening diverse parties in rulemaking and standards development for payments and other transactions

For decades, NACHA has leveraged its competencies in facilitating industry dialogue, education and certification programs benefitting a range of communities with rules, standards and related tools:

- **NACHA Operating Rules** for ACH payments
- **Quest® Operating Rules** for EBT payments
- Standards development organization for healthcare EFT via the Affordable Care Act (PPACA)
- Rules-based frameworks for opt-in programs (EBIDS, SVP, DCT, XML, BPE, IRS tax refunds)
- Banking conventions for child support and tax payment remittance information
- Governance leadership for Business Payments Directory Association
- Accredited Payments Risk Professional (APRP) professional certification program
- NCUIC interest compensation rules
- PKI interoperability rules for state governments
- Global initiatives to support cross-border payments
- Financial services API standardization via ASIG
- IFX business message specification and other global standards via IFX Forum
Core Functions of NACHA as ACH Network Administrator

- Manage the *NACHA Operating Rules* and rulemaking process
  - Receive “Business Idea Submissions” for potential creation of *Rules*
  - Manage the full rulemaking process
  - Answer ongoing *Rules* questions
  - Determine when *Rules* may be supplemented with Operating Guidelines, education or white papers

- Facilitate new ways to utilize the ACH Network
  - Work with industry participants to administer pilots or opt-in programs
  - Generate concepts and information to support “Business Idea Submissions”
  - Regularly reach out to and listen to industry participants as they use the ACH Network
Core Functions of NACHA as ACH Network Administrator

- Administer compliance and enforcement processes to foster understanding of and compliance with the *NACHA Operating Rules*
  - Administer the National System of Fines
  - Provide “new ODFI” training
  - Support the Arbitration process
  - Answer general *Rules* questions that come to NACHA

- Facilitate and manage tools and practices to manage risk on the ACH Network
  - Work with the Risk Management Advisory Group (RMAG) to identify best practices, publish white papers and develop rules
  - Identify, and when appropriate, help develop tools for the Network
  - Administer Risk Management Portal
    - Third-Party Sender Registration Database, Direct Access Registration Database, Terminated Originator Database, and Emergency Financial Institution Contact Database
  - Manage Third-Party Sender Certification program (NACHA Certified)
  - Hold regular dialogue with governmental agencies / regulators to ensure the *NACHA Operating Rules* stay “in synch” with regulations
NACHA as Industry Association

• As a not-for-profit association, NACHA represents nearly 9,000 financial institutions — 31 are Direct FI Members, and others are represented via 11 Regional Payments Associations
  – NACHA strives to add differentiated value to both groups of Direct Members to benefit their own organizations and to enable them to add value to their respective clients and members
  – NACHA Direct FI Members are also Regional Payments Association members

• NACHA brings together payments system stakeholders to foster dialogue and innovation to strengthen the ACH Network through many venues
  – Payments Innovation Alliance
  – API Standardization Industry Group
  – Affiliate Program
  – Board Advisory Group
  – Risk Management Advisory Group
  – Government Relations Advisory Group
Core Functions of NACHA as Industry Association

• Engage in communications, messaging and advocacy
  – Dialogue with and education of policymakers
  – Collaboration with other industry trade associations
  – Education and messaging resources and tools to engage consumers and businesses in ACH payments

• Create and support venues for dialogue and collaboration
  – With other organizations
  – Committees, advisory groups, and task forces
  – Payments Innovation Alliance
    • API Standardization Industry Group (ASIG)
  – Affiliate Program
  – Administer Quest® Operating Rules (EBT)
Core Functions of NACHA as Industry Association

• Develop and deliver broad payments education on many topics
  – Annual PAYMENTS Conference
  – The Payments Institute
  – Webinars
  – Publications

• Administer the Accredited ACH Professional (AAP) Program
  – Rigorous exam with re-certification through continuing education credits
  – Increasingly viewed by bank examiners as an indication of a financial institution’s commitment to *Rules* compliance and sound risk management practices
  – Online community for current and aspiring AAPs

• Administer the Accredited Payments Risk Professional (APRP) Program
  – Individual certification of risk expertise across payment types
  – Launched in 2018 with first exam
  – Integrated into AAP online community
Strategic Initiatives to Support NACHA’s Interrelated Roles for ACH, and Beyond

- Administer and lead the API Standardization Industry Group (ASIG) to support the advancement and use of standardized APIs within the broad U.S. financial services industry
- Conduct targeted end-user outreach via Strategic Corporate Relations Program
- Develop partners to create ACH functionality and growth of the Network
- Promote awareness and use of innovative solutions that increase or enhance the use of secure ACH payments, information and messaging by financial institutions and end-user entities through the Preferred Partner Program
- Provide consultative services to help others utilize ACH and other payments in safe, secure and innovative ways (Elevation)
The ACH Network – What We Are
The ACH Network – What We Are

• Links to virtually every one of the more than 10,000 depository financial institutions in the country – from the largest banks to the smallest credit unions

• Payments are exchanged through the ACH Network using a batch, store-and-forward process:
  – It is neither a real-time nor an online processing system
  – Transactions are accumulated from Originating Depository Financial Institutions (ODFIs) by the ACH Operators throughout the day, sorted, and are made available to the Receiving Financial Depository Financial Institutions (RDFIs) in accordance with published schedules
  – Next-day and same-day settlement
**What is EFT – What is ACH?**

**EFT (Electronic Funds Transfer)** is a general term designating a system or process for electronically transferring funds from one bank account to another.

- EFT can refer to ACH, ATMs, payment cards, wires, SWIFT, and any other electronic means for transferring funds.
ACH (Automated Clearing House Network) refers to a specific electronic payment network.

- The ACH Network is used for business, government and consumer domestic and international payments.
- Funds are moved between bank accounts by the banks.
- Payments settle within 1-2 days for “Classic ACH;” payments settle in the same day for “Same Day ACH.”
- The Network is governed by NACHA—The Electronic Payments Association.
Unique ACH Network Attributes

- Make / Receive Payments to any Account
- Robust payments
- Check Conversion
- Zero-dollar transactions
- Consumer & Business
- Government Transactions
- Recurring/One-Time Payments
In the ACH, **What is a Credit Payment and What is a Debit Payment?**

In a CREDIT ACH payment, the customer or buyer “pushes” funds from the buyer’s bank account to a seller’s bank account. 

(Analogy – sending a Direct Deposit of payroll to employee – or wire payment)
ACH Credit Payment: Entry and Funds Flow

ODFI → ACH Operator → RDFI

Originator → Debit Originator’s Account

Credit Receiver’s Account → Receiver

Authorization
In the ACH, What is a Credit Payment and What is a Debit Payment?

In a DEBIT ACH payment, the seller “pulls” funds from the customer or buyer’s bank account for transfer to the seller’s bank account. 

(Analogy – paying with a check, where the seller then needs to deposit the check and collect funds.)
ACH Debit Payment: Entry and Funds Flow
Direct Deposit via ACH

- Payroll
- Travel & Entertainment
- Government Benefits
- Tax Refunds
- Interest Payments
Direct Payment via ACH

- Car Loans
- Tuition
- Mortgage
- Utilities
- Retail Purchases
The ACH Network is Thriving
More than 1 Billion New ACH Network Transactions for Four Consecutive Years

Annual ACH Network Transaction Volume (billions)
ACH Network Volume Growth is Robust
Highest Growth Rate Since 2008

Annual Percentage Increase of ACH Network Transaction Volume
ACH Network Growth – 2018

<table>
<thead>
<tr>
<th>Payments</th>
<th>% change</th>
<th>Dollars</th>
<th>% change</th>
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<td>Business-to-Consumer</td>
<td>6.8B</td>
<td>4.4%</td>
<td>$9.7T</td>
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<td>Business-to-Business</td>
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Same Day ACH – Quarterly Transaction Volume
(Millions)
Same Day ACH Transaction Volume – 2018

**Volume**

- B2B: 49.9%
- C2B: 19.7%
- B2C (credits): 20.1%
- P2P: 10.3%

**Dollars**

- B2B: 35.3%
- C2B: 36.4%
- B2C (credits): 21.8%
- P2P: 6.5%
What does the ACH Network look like today?

Native electronic payments continue to grow (versus those that begin as checks) as consumers and businesses choose to make and receive payments electronically.

The majority of ACH payments are debit versus credit transactions.

- Source: NACHA 2018
The ACH Network has adapted to serve a broad set of use cases

- Source: NACHA 2018
Faster Payments – Speeding up the Network
The New Same Day ACH Opportunity for Businesses

**Fast – Anywhere**
Same Day ACH payments can be sent to - or collected from - any bank account in the U.S.

**Sent and Received Same Day**
Payments or collections initiated within designated times are received and settled the same day.

**Optional to Send**
Payers and debit collectors must choose to use Same Day ACH by placing today’s date in the Effective Entry Date field.

**Required to Receive**
Banks are required to receive Same Day ACH payments and debits, and to update accounts in the same day.

Existing one-day and two-day ACH processing and settlement capabilities are not impacted.
Same Day ACH Benefits – Making Payments

Payers

Uses include:

- Emergency payments, off-cycle disbursements and corrections or payouts, time critical/due-date payments, account transfers, errors/payment re-initiation, etc.

Benefits

- **Treasury**: improved working capital/cash flow management/hurdle rate
- **Operations**: reduced cost for expedited payments; improved invoice processing/payment cycle time; faster supplier cash application with inclusion of remittance; quicker acquisition of supplies/services
- **Customer Service**: predictable timing for disbursements/payouts (e.g. insurance, employee); saves costs for payment receiver

<table>
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</table>

Pay today!
Same Day ACH Benefits – Receiving/Collecting Payments

Payment Receivers

Uses include:

- Expedited credit ACH receipt, debit ACH collection and error correction

Benefits

- **Treasury**: improved working capital/cash flow management/hurdle rate for customer payments/cash concentration; move collections forward one day without changing customer behavior

- **Operations**: Low receipt and collection cost/payment compared to other expedited options; improvement to days sales outstanding (DSO) reduction, average days delinquent (ADD), collection effectiveness index (CEI); better cash application cycle time when remittance included; reduced risk for collections – quicker cycle for account verification/returns; positive impact to logistics cycle/disbursements of goods/services, improved product throughput with faster availability of good funds

- **Customer Service**: accommodate low cost critical/late payments from customers; quicker release of goods/services including for credit hold customers; meets consumer expectations for bank account management/transparency
“Classic” and Same Day ACH:
Payment Comparison – Payment Due Dec. 1

Classic ACH
- Send payment and remittance on Nov. 30 – or originate debit on Nov. 30
- Biller/supplier will receive payment and remittance on Dec. 1

Same Day ACH
- Send credit or debit payment and remittance in time for window #1 on Dec. 1, or
- Send credit or debit payment and remittance in time for window #2 on Dec. 1
- Biller/supplier will receive payment and remittance on Dec. 1

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Phased Approach to Same Day Implementation

PHASE 1
September 2016
• Credits only
• RDFI sets receiver funds availability for that day

PHASE 2
September 2017
• Credits and debits
• RDFI sets receiver funds availability for that day

PHASE 3
March 2018
• Credits and debits
• Receiver funds available at 5 PM RDFI local time

Note: 5 PM RDFI (Receiving Depository Financial Institution or payee’s bank) local time funds availability in Phase 3 is a minimum requirement for receiver funds availability. Your financial institution may exceed this requirement, and provide funds availability earlier, and/or may adjust depository balance throughout the day in any of the Phases.
Almost all credit and debit ACH payments
Example credit and debit payments: payroll, travel/expense, supplier payments, state taxes, bill pay, urgent claims/refunds, person-to-person, account-to-account, check conversions, collections, e-commerce/web/portal payments, returns, etc.

Non-monetary transactions
Examples: pre-notifications, notifications of changes, zero-dollar remittance information transactions, etc.

International transactions (IATs), single payment transactions over $25,000 will not be eligible for same-day processing

Federal government payments
The federal government will not be participating in Phase 1 of Same Day ACH implementation, and will not send or receive Same Day ACH payments at this time.
Innovation – New Initiatives for ACH
Direct Deposit Mobile App
“Your Account Number When You Need It”
NACHA Direct Deposit Mobile App

• Purpose of today's presentation
  – Provide background on the industry need and drivers for the Direct Deposit Mobile APP
  – Perform a basic walkthrough of the Direct Deposit Mobile App V1.0
  – Overview of features coming in V2.0
  – Discuss the deployment strategy and potential roles for Direct Deposit Mobile App partners
Industry Demand for ACH Tools and Services

- Users and Businesses desire to remove any friction in the ACH enrollment and payment processes
- Millennials site friction during enrollment as a pain point when using ACH as a payment method
- Fintech Innovators continue to leverage ACH for payment functionality creating growing demand for frictionless experiences
- Financial Institutions identify providing account number information to customers/members as costly and repetitive
- Reducing risk and fraud will continue to be leading driver of payments innovation
Direct Deposit Mobile App – Securely Storing Validated DDA Accounts
Direct Deposit Mobile App – Securely Storing Validated DDA Account
Know Your Account Number Option

Users can also enter DDA information or scan a check to enroll

Account information is validated before loading
Direct Deposit Mobile App – Safely Sharing Account Information

You have not shared this account information with anyone yet.

Enter iPhone passcode for “Direct Deposit”
To access your bank information, please use your phone’s passcode

Press the passcode keys to enter your passcode.

Cancel
Direct Deposit Mobile App – Safely Sharing Account Information

Now Wasn’t that Easy!!
Direct Deposit In/APP messaging

- NACHA Direct Deposit Partners deliver custom messages to all or specific DD users
Direct Deposit Mobile App - Takeways

- Account number is safely stored on the consumers phone, no account information is stored by Direct Deposit Mobile App server
- Direct Deposit version V1.0
  - Available on IOS and Android App Stores
  - >2K users and growing
- User feedback and analysis resulted in V2.0 to be released March 2019
The soft launch of the Direct Deposit Mobile App V2.0 provided valuable insight into the viability for greater adoption and usability.

Users and Stakeholder feedback resulted in the following features:

- Enhanced security
  - Eliminating bad actors
  - Preventing use of altered phone software
- Support of multiple accounts
  - Users can now store up to 5 DDA accounts
- Branding
  - Direct Deposit Brand Partners able to display company logo/brand for direct deposit customer users
Direct Deposit Mobile App Version 2.0
User Adoption

- Direct Deposit like all financial application depends on adoption for success
- NACHA Direct Deposit Partners
  - Promote DD App to customers
  - Custom IN/APP messaging available
  - Account validation included
  - Branding opportunities available
Afinis Overview for Merchant Advisory Group

George Throckmorton – Executive Director Afinis
– Managing Director NACHA
Purpose

- Level set of what is API standardization
- Provide high level overview of Afinis – Interoperability Standards Organization
What is an API?

An **application program interface (API)** is code that allows software programs to communicate with each other.

It defines the correct way to write a program that requests services from an operating system or other application.
What is an API?

Set of **programming instructions**
Lets one software application ask another to perform a task or a series of tasks

Enables **direct & real-time communication** between back-office systems
e.g., merchant-to-bank or merchant-to-cloud ERP

Always on and communicating **real-time**
Different Types of APIs Leveraged Today

Private APIs are closed to a single organization that is leveraging software to enable internal systems to “talk” more efficiently.

Partner APIs are opened to selected partners based on bilateral agreements.

Source: IBM
API Initiatives Around the Globe
• Afinis is a member-led organization established on behalf of the financial services industry by NACHA. NACHA unites diverse stakeholders to develop rules and standards that foster compatibility and integration across the financial services ecosystem. Afinis members share a single vision: to improve and support efficiency, safety, and interoperability for all financial services participants by developing and promoting adoption of implementable financial services messaging and financial services messaging an open API standards
Value

• Afinis members have direct and equal influence on the development, prioritization and governance of open API products and messaging standards
• Afinis members actively shape and drive outcomes that can benefit their individual organizations and the financial services ecosystem
• Afinis members gain access to a global network of peers representing organizations at the forefront of API innovation
• Afinis members learn from, share insights, and collaborate with global standards organizations and initiatives
• Afinis members enjoy advanced access to open API products and messaging standards for testing and implementation purposes before they become public
• Afinis members enjoy access to exclusive, members-only news, information and resources on the latest technologies and industry initiatives
• Afinis members demonstrate leadership and innovation for market driven adoption of open API standards
Membership

- Following a recent acquisition of the IFX Forum the Afinis membership includes more than 130 companies representing financial institutions, technologist, service providers, and other participants financial services industry.

- The current interim board members:
  - ACI Worldwide
  - Bank of America
  - D3 Banking
  - Microsoft
  - Oracle
  - Payrailz
  - TCS
  - Wells Fargo
  - Barclays
Afinis partnered with Google/Apigee to create its developer portal and sandbox  
www.afinis.org

- The portal is where developers
  - Register to access Afinis APIs (free)
  - Discover and explore documentation
  - Upload Apps for Afinis sandbox testing
  - Learn and collaborate with other developers

- Current enhancements include
  - API product governance
  - Developer certification
Afinis API Open Standards

Afinis develops implementable API products for adoption by the financial services industry

YAML, JSON code, and SDK's

Open API's are developed using open source tools

- Jira/Conflunce
- Github
- Swagger 2.0

Open API's are developed using ISO20022 message definitions combined with Afinis data models
Published Open API Standards

- **Get Bank Contact Information**
  - This API allows originating financial institutions to quickly alert receiving financial institutions of potential fraud to help ensure funds are not distributed.

- **Account Validation**
  - This API ensures target accounts are valid and payments are posted as desired.
Afinis members leverage the Agile development method following 12 week sprint cycles

Afinis work teams include business analyst and design or technical teams with ad hoc groups formed as needed

Outsourced resources or consultants are also retained if required
Current Work Streams

- **API Standard Development**
  - Payment initiation
  - Transaction status
  - B2B interoperability

- **Implementation Projects**
  - Discover Financial Services
  - Payments Canada, BofA, and TD Bank
  - Payrailz

- **Adhoc**
  - Afinis BMS data model and ISO20022 gap analysis
  - API product governance prioritization
  - API portal redesign
Why Get Involved?
ACH Today and Tomorrow – What Does it All Mean to Me?
Appendix – Glossary of Acronyms

• AAP  Accredited ACH Professional
• ACH  Automated Clearing House
• ACK  Acknowledgment for a CCD Entry
• ADV  Automated Accounting Advice
• AML  Anti Money Laundering
• ANSI  American National Standards Institute
• ARC  Accounts Receivable Entry
• ATM  Automatic Teller Machine
• ATX  Acknowledgment for a CTX Entry
• BOC  Back Office Conversion Entry
• BSA  Bank Secrecy Act
<table>
<thead>
<tr>
<th>Acronym</th>
<th>Definition</th>
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<tr>
<td>CCD</td>
<td>Corporate Credit or Debit</td>
</tr>
<tr>
<td>CCD+</td>
<td>CCD Entry with one addenda record</td>
</tr>
<tr>
<td>CHIPS</td>
<td>Clearing House Interbank Payments System</td>
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<tr>
<td>CIE</td>
<td>Customer Initiated Entry</td>
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<tr>
<td>CIF</td>
<td>Central Information File</td>
</tr>
<tr>
<td>COR</td>
<td>SEC Code for Automated Notification of Change (also referred to as NOC)</td>
</tr>
<tr>
<td>CTX</td>
<td>Corporate Trade Exchange</td>
</tr>
<tr>
<td>DFI</td>
<td>Depository Financial Institution</td>
</tr>
<tr>
<td>DNE</td>
<td>Death Notification Entry</td>
</tr>
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</table>
Glossary of Acronyms

- EBT: Electronic Benefits Transfer
- EDI: Electronic Data Interchange
- EFT: Electronic Funds Transfer
- EFTA: Electronic Funds Transfer Association
- EFTPS: Electronic Federal Tax Payment System
- ENR: Automated Enrollment Entry
- FMS: Financial Management Service
- FRB: Federal Reserve Bank
- FRS: Federal Reserve System
- IAT: International ACH Transaction
- ISO: International Organization for Standardization
- KYC: Know Your Customer
Glossary of Acronyms

- MICR: Magnetic Ink Character Recognition
- MTE: Machine Transfer Entry
- NACHA: National Automated Clearing House Association
- NACS: National Association of Check Safekeeping
- NOC: Notification of Change
- ODFI: Originating Depository Financial Institution
- OFAC: Office of Foreign Assets Control
- P2P: Person-to-Person
- PBR: Consumer Cross Border Entry
- PIN: Personal Identification Number
- POP: Point of Purchase Entry
- POS: Point of Sale Entry
Glossary of Acronyms

- **PPD**: Prearranged Payment or Deposit
- **RCK**: Re-Presented Check Entry
- **RDFI**: Receiving Depository Financial Institution
- **SEC**: Standard Entry Class
- **SHR**: Shared Network Transaction
- **TEL**: Telephone-Initiated Entry
- **TPS**: Third-Party Sender
- **TPSP**: Third-Party Service Provider
- **TRC**: Truncated Entry
- **TRX**: Truncated Entries
- **UCC4A**: Uniform Commercial Code Article 4A
- **WEB**: Internet-Initiated Entry
- **XCK**: Destroyed Check Entry