Our innovation

Driven by customers and rooted in experience, trust, and efficiency

<table>
<thead>
<tr>
<th>Customer Experience</th>
<th>Trust</th>
<th>Efficiency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Make it easier for our customers to manage their finances</td>
<td>Consistently earn customer trust through sound risk management</td>
<td>Continually improve how work gets done</td>
</tr>
</tbody>
</table>

Examples

- **Mobile Wallet**
- **Authentication**
- **Paperless Store**
Since the beginning, we have innovated for the customer.
Our innovation continues to evolve our businesses

First in internet banking

1995

First to institutionalize investment planning based on life goals

2004

First Wholesale banking mobile app

2007

Biometric authentication (fingerprint, eye, voice)

2016

Introduced target date funds

1994

Launch of Commercial Electronic Office® (CEO®), a first-to-market single sign-on portal for corporations

2000

You Know Me ATM provides personalized customer experience

2006

Assisted-Service ATMs

2013
Our innovation ecosystem is vast

<table>
<thead>
<tr>
<th>Idea Generation</th>
<th>Test and Learn</th>
<th>Collaborate</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>▪ Wells Fargo Startup Accelerator</td>
<td>▪ Idea Builder</td>
<td>▪ 11 labs across the enterprise</td>
<td>▪ Improved customer experience</td>
</tr>
<tr>
<td>▪ Partnerships with fintech incubators and labs</td>
<td>▪ Innovation contests</td>
<td>▪ Hackathons and protothons</td>
<td>▪ Patent creation</td>
</tr>
<tr>
<td></td>
<td>▪ Innovation summits and iWeek</td>
<td>▪ Proofs of concept and rapid prototyping</td>
<td>▪ New product / service rollout</td>
</tr>
<tr>
<td></td>
<td></td>
<td>▪ Proofs of concept and rapid prototyping</td>
<td>▪ Business transformation</td>
</tr>
</tbody>
</table>

Culture of Innovation 4 Wells Fargo 2016 Investor Day
Innovation landscape: selected examples

**Short Term**
- Authentication
- Paperless store
- Mobile wallet

**Medium and Long Term**
- Speech recognition/mobile voice banking
- Behavioral analytics
- Location-based services
- Virtual reality
- Blockchain
- Predictive analytics
- Cognitive computing

*TODAY’S FOCUS*
Continuous iteration on our innovations to support customer needs
Innovation at Wells Fargo is:

- Part of our legacy, not a recent event
- Guided by millions of customers and thousands of team members, not theory
- Enterprise-wide, not siloed
- Ongoing, not one-time
- Built for scale and durability, as well as for end-to-end transformation

Focused on improving the customer experience, enhancing trust, and gaining efficiency
Authentication
Every financial transaction starts with authentication

We created a suite of capabilities that offer enhanced security while being easy for customers to use

<table>
<thead>
<tr>
<th>Evolving From Traditional...</th>
<th>...To Enhanced Authentication Methods</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>What You Know</strong></td>
<td><strong>What You Have</strong></td>
</tr>
<tr>
<td>▪ Usernames</td>
<td>▪ Mobile Phones</td>
</tr>
<tr>
<td>▪ Passwords</td>
<td></td>
</tr>
<tr>
<td>▪ Transactional History</td>
<td></td>
</tr>
<tr>
<td><strong>Who You Are</strong></td>
<td><strong>Who You Are</strong></td>
</tr>
<tr>
<td>▪ Voice</td>
<td>▪ Voice</td>
</tr>
<tr>
<td>▪ Fingerprint</td>
<td>▪ Fingerprint</td>
</tr>
<tr>
<td>▪ Eyeprint</td>
<td>▪ Eyeprint</td>
</tr>
</tbody>
</table>

New digital capabilities (e.g., mobile phones with Touch ID, cameras, and geolocation) enable new authentication methods
Authentication strategy: comprehensive capabilities

Multiple Options

* Enables customers to choose their preferred authentication method
  
  - Biometrics
    - Fingerprint
    - Eyeprint
    - Voice recognition
  - One-Time Passcode
    - SMS text
    - Key fob
  - Password

Multiple Channels

* Allows customers to access our services whenever and however they choose
  
  - Stores
  - ATMs
  - Digital (Online/Mobile)
  - Call Centers

Across Businesses

* Provides consistency in experience across the enterprise
  
  - Community Banking
  - Consumer Lending Group
  - Wealth and Investment Management
  - Wholesale Banking

We have evolved our offerings over the years to shift with customer preferences and to incorporate new technology.

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Authentication suite: launching in 2016

**What You Have**

*One-Time Passcode via Online and Mobile*

<table>
<thead>
<tr>
<th>ATM (1)</th>
<th>Drive-up lanes</th>
<th>Call Center</th>
</tr>
</thead>
<tbody>
<tr>
<td>(pilot)</td>
<td>(pilot)</td>
<td>(live)</td>
</tr>
</tbody>
</table>

**Who You Are**

*Biometric Authentication*

<table>
<thead>
<tr>
<th>Voice (Call Center Authentication)</th>
<th>Eyeprint (2)</th>
<th>Fingerprint</th>
</tr>
</thead>
<tbody>
<tr>
<td>(pilot)</td>
<td>(live)</td>
<td>(live)</td>
</tr>
</tbody>
</table>

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1. Cardless ATM access using one-time passcodes pilot expected to begin in June 2016 and roll out is expected to start 4Q16. NFC and wallets rollouts are expected to start in 2Q16.
2. Available to Wholesale customers through the Wells Fargo CEO Mobile® application; rollout expected to be completed in 3Q16.
Biometric authentication demonstration

Mobile Options to Authenticate

Eyeprint Demonstration

Picture of Eyeprint

Eyeprint Authenticated

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Paperless Enterprise
The Paperless Enterprise is rooted in three goals:

<table>
<thead>
<tr>
<th>Goals</th>
<th>Sample of Paperless Enterprise Initiatives</th>
</tr>
</thead>
<tbody>
<tr>
<td>Customer Experience</td>
<td>Provide seamless customer interactions</td>
</tr>
<tr>
<td></td>
<td>Remote Deposit and Online Wires</td>
</tr>
<tr>
<td></td>
<td>- Remote scanning of checks for intraday posting allowing for real-time balances</td>
</tr>
<tr>
<td></td>
<td>- Completing wires digitally without paperwork</td>
</tr>
<tr>
<td>Trust</td>
<td>Ensure customers’ financial security</td>
</tr>
<tr>
<td></td>
<td>Customer Onboarding and Servicing</td>
</tr>
<tr>
<td></td>
<td>- Capturing electronic applications, disclosures, and signatures</td>
</tr>
<tr>
<td></td>
<td>- Removing paper from the servicing processes</td>
</tr>
<tr>
<td>Efficiency</td>
<td>Deliver an improved experience using fewer resources</td>
</tr>
<tr>
<td></td>
<td>Paperless Store</td>
</tr>
<tr>
<td></td>
<td>- Removing paper from customer transactions in the store</td>
</tr>
</tbody>
</table>

TODAY’S FOCUS

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A significant opportunity existed to eliminate paper

Banks have historically relied on paper to conduct transactions

<table>
<thead>
<tr>
<th>Examples of Traditional Paper Based Banking Experiences</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Customers</strong></td>
</tr>
<tr>
<td>- Fill in time-consuming forms (e.g., deposit slips)</td>
</tr>
<tr>
<td>- Receive access to funds later depending on time of deposit</td>
</tr>
<tr>
<td><strong>Team Members</strong></td>
</tr>
<tr>
<td>- Process deposits by manual teller entry</td>
</tr>
<tr>
<td>- Require daily collection, sorting, and bagging of checks to close out</td>
</tr>
<tr>
<td><strong>Wells Fargo</strong></td>
</tr>
<tr>
<td>- Invest in costly transportation network and processing centers</td>
</tr>
<tr>
<td>- Require significant resources to support manual transactions</td>
</tr>
</tbody>
</table>

Wells Fargo initiated several Paperless Store initiatives to improve the customer experience, increase trust, and yield efficiencies
Paperless Store: a result of end-to-end transformation

People, process, and technology transformations have yielded competitive advantages that are not easily replicated.

<table>
<thead>
<tr>
<th>People</th>
<th>Process</th>
<th>Technology</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-Service ATMs</td>
<td>Full Service Teller eTransactions</td>
<td>Assisted-Service ATMs</td>
</tr>
<tr>
<td>Team Member Tablets</td>
<td>Teller Check Imaging</td>
<td></td>
</tr>
</tbody>
</table>

**Self-Service ATMs**
- Provide customers with an intuitive experience that is personalized to their past behavior

**Full Service Teller eTransactions**
- Allow customers to initiate transactions with their card and PIN instead of paper

**Assisted-Service ATMs**
- Provide an expanded range of ATM transactions along with on-demand access to bankers

**Team Member Tablets**
- Access customer information to facilitate transactions anywhere in the store

**Teller Check Imaging**
- Facilitate same-day processing of checks in-store for faster access to funds
Leveraging the success of Self-Service ATMs

ATMs are the foundation of our industry-leading customer experience, on which the Full Service Teller eTransactions experience is built.

Our Self-Service ATMs were our first major foray into digitizing our stores; we continue to lead in capabilities.

Key Features
Personalized options based on customer behavior and preferences, targeted customer messaging, rewards redemptions, acceptance of chip cards, roll-out of cardless access expected to start in Q2 2016

Impact
- 884 million transactions in 2015, representing 60% of physical channel (teller and ATM) volume
- 40% of transactions completed with 1-click options

Teller eTransactions leverage the ATM interface, providing a consistent experience for transactions.

Key Features
Transactions without deposit slips, authentication with card and PIN (cardless access expected to start in 2017), mirroring of transactions so tellers can view what the customer sees on the pad

Impact
- In all stores, conducting 50% of total teller transactions (December 2015)
Continuing efforts to automate teller interactions

Assisted-Service ATMs and team member tablets support teller automation and a transformation of the store experience

Customers can request assistance from bankers while conducting a transaction

Team members receive requests via their tablets, allowing them to engage the customer and address their needs

Key Features
Ability to withdraw multiple denominations and access accounts not linked to ATM cards, increased withdrawal limits

Impact
- Expected to expand to 300 stores in 2016
- Decreased same-store teller transactions by 15%

Key Features
View real-time Assisted-Service ATM transactions, receive and process requests for assistance from customers, and other customer service activities

Impact
- Assisted Service ATMs with tablets are expected to be available in 300 stores; tablets are used for additional services in another 100 stores
- Will invest in additional Assisted-Service ATMs and tablets based on results
Overhauling back-end transaction infrastructure

Implementing teller check imaging improved the customer experience and continues to yield efficiencies for the organization, with 1.6 billion checks processed in 2015 alone.

Tellers scan checks for same-day processing instead of manually entering, sorting, and bagging checks for transporting and processing off-site.

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**Depositing a Check**

**Immediate Imaging and Processing**

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**Stakeholder** | **Benefits**
---|---
**Customer** | Customers are able to deposit checks without daily cutoff times (benefiting 35 million transactions annually)
**Team Member** | Reduced manual entry and processing errors by 90%
**Shareholder** | - Improves teller efficiency
  - Forecasted $70 million in annual transportation and operational costs (eliminated 21 operational centers, trimmed check pickups from 5 to 3 days per week)
Future innovations build on the foundation

The Paperless Store is a model of continuous improvement, with new enhancements arriving in the next year.

<table>
<thead>
<tr>
<th>New Capabilities</th>
<th>Team Member Mobility</th>
<th>Teller Automation</th>
<th>Cardless Transactions</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Enhance tablets to service pre-staged transactions, lookup customer appointments, and aid team member coaching</td>
<td>Expand pilots to identify optimal mix of automated and team member services</td>
<td>Roll out cardless transactions using one-time passcode or near field communication (NFC)</td>
</tr>
</tbody>
</table>

- **Team Member Tablet or Smartphone**
- **Assisted-Service ATMs**
- **Drive-up Banking**
Payments Overview
Innovation in payments is paramount
We have a diverse portfolio of payments businesses

<table>
<thead>
<tr>
<th>WFC Payments Businesses</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consumer Checking</td>
<td>• Provides consumer checking accounts and related payments services such as debit card, check, bill pay, and person-to-person transfer</td>
</tr>
<tr>
<td>Consumer Credit Card</td>
<td>• Issues credit card products and provides services to consumers (primarily to existing customers)</td>
</tr>
<tr>
<td>Business Checking</td>
<td>• Provides checking accounts and related payments services such as debit card, check, and bill pay to small businesses</td>
</tr>
<tr>
<td>Small Business Credit Card</td>
<td>• Issues credit card products and provides services to Wells Fargo small business checking customers</td>
</tr>
<tr>
<td>Merchant Services</td>
<td>• Enables merchants (Wells Fargo Business Checking and Wholesale customers) to accept credit/debit cards via a joint venture with First Data</td>
</tr>
<tr>
<td>Treasury Management</td>
<td>• Provides technology-based solutions to help businesses manage treasury operations: processing incoming funds, balancing accounts, and making payments</td>
</tr>
<tr>
<td>Commercial Card (Part of Treasury Management)</td>
<td>• Provides Treasury Management customers consolidated travel and entertainment, fleet, general procurement, and invoice-based payment programs</td>
</tr>
</tbody>
</table>
Our position and strategy

We have a leadership position in many of our payments businesses and a growth strategy to further increase our presence in the payments space.

### Leadership in payments

<table>
<thead>
<tr>
<th>#1</th>
<th>Electronic payments in 2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>&gt;$140 trillion</td>
<td></td>
</tr>
</tbody>
</table>

- Retail deposit market share (1)
- Debit card transaction volume (2)
- ACH payments (3)
- Online Money Movement Experience (4)
- Customer satisfaction ranking for Treasury Management products (5)

### Growth strategy

- Increase our scale in **core payments** services
- **Follow where our customers go**, and meet their evolving needs
- Invest in **next-generation** enabling capabilities

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(1) FDIC data, SNL Financial, as of June 2015. Retail deposit data is pro forma for acquisitions and caps deposits at $1 billion in a single banking store and excludes credit union deposits. (2) Nilson report, April 2016; total 2015 debit and prepaid transaction volume for consumer and small business. (3) #1 ACH bank in the sum of origination and received volumes (23% of total payment volume), National Automated Clearing House Association, 2015. (4) Forrester 2015, 2015 US Online Banking Functionality Benchmark. (5) Wells Fargo received 16 A+ product quality grades in a survey of middle-market customers, and 18 A+ grades in a survey of large corporate customers, more than any other U.S. Bank.
Innovation examples

Our innovation efforts will expand our leadership position in payments

### Key examples

**Customer Experience**

*Make it easier for our customers to make and manage payments*

- Distribute payment services to customers on external digital properties via payments application programming interfaces (APIs)
- Launch our mobile wallet and be our customers’ default card in existing digital wallets

**Efficiency**

*Improve speed and leverage scale to reduce costs*

- Lead efforts to develop real-time person-to-person payments solutions
- Apply real-time payments capabilities to other use cases, such as faster disbursements
- Allow companies to validate a customer account in real time to speed up the payments process

**Trust**

*Drive trust through security, transparency, and customer control*

- Roll out tokenization to make payments more secure
- Use 2-way fraud SMS so customers can quickly verify suspicious transactions
- Continue to enable Wholesale customers to make card payments without plastic (using a secure virtual number)

**TODAY’S FOCUS**

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Our mobile wallet strategy is two-pronged: increasing our presence in existing digital wallets and launching our own mobile wallet offering.

**Be the ‘default card’ in digital wallets**

*Partner with existing digital wallet providers and actively promote our customers’ usage of Wells Fargo cards in digital wallets*

- **88%**  
  Growth in wallet purchases per active card since Apple Pay launch

- **203%**  
  Year-on-year growth in number of active cards loaded in wallets (1)

- **25%**  
  Linked-quarter growth in total purchase volume (2)

**Launch a Wells Fargo mobile wallet**

*Roll out our own mobile wallet to further enable our customers’ day-to-day payments activities*

- Embedded in the Wells Fargo mobile banking application (the first of its kind), which millions of customers use, know, and trust

- Differentiated with bank-specific features to increase efficiency for our customers

- Live with team members; broad launch is targeted for mid-to-late 2016

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(1) Includes consumer and small business debit and credit cards, as of March 2016.
(2) From 4Q15-1Q16.
Wells Fargo Wallet

Our mobile wallet will enable an easy and secure payments experience, as well as differentiated capabilities.

<table>
<thead>
<tr>
<th>User experience: Unlock and tap to pay</th>
</tr>
</thead>
<tbody>
<tr>
<td>Available to millions of Android mobile banking users</td>
</tr>
</tbody>
</table>

- Wells Fargo cards are automatically presented to the user, and can be added to the wallet with a single click.
- Balance/credit is made available to help the user make purchase decisions.

<table>
<thead>
<tr>
<th>Cardless ATM transactions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Starting in June, our customers can access selected ATMs with the Wells Fargo Wallet and other supported wallets; we expect to add this feature to 5,000 ATMs by the end of 2016</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Key differentiating features under consideration for 2017</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Store authentication</strong>: Broaden the use of the Wells Fargo Wallet as a method of verifying identity at stores.</td>
</tr>
<tr>
<td><strong>Card control</strong>: Enable new card control features to put customers in the driver’s seat.</td>
</tr>
<tr>
<td><strong>Rewards</strong>: Deepen integration with Wells Fargo rewards and loyalty programs to solidify bonds between consumers, their cards, and merchants.</td>
</tr>
</tbody>
</table>
Innovation at Wells Fargo is:

- Company-wide and guided by millions of customers and thousands of team members
- Actively engaged with emerging trends and technology, but thoughtful in deploying capital
- Built for scalability and durability
- Ongoing and evolutionary, supporting long-term growth

Focused on improving the customer experience, enhancing trust, and gaining efficiency
Biographies
Steve Ellis
Executive Vice President, Head of Innovation

- Steve Ellis is an executive vice president and head of the Wells Fargo Innovation Group, an enterprise-wide organization devoted to accelerating the company’s delivery of next-generation, customer-inspired technologies, products, and services. Prior to this assignment, Steve was head of the Wholesale Services Group, which included Treasury Management, Wholesale Banking Technology and Operations, Wholesale Social Strategies, Innovation and Research and Development, Wholesale Marketing, and the Enterprise Payment Strategies Group.

- A 28-year company veteran, Steve’s previous responsibilities included starting up and running the Wholesale Internet Solutions group, which launched Wells Fargo’s award-winning Commercial Electronic Office® (CEO®) portal in 2000 and CEO Mobile® in 2007. The fast pace of Wells Fargo’s early move into online and mobile financial services was due in large part to his commitment to fostering workplace creativity. Prior to starting up Wholesale Internet Solutions, Steve held senior finance and operations roles in Wells Fargo Commercial Banking, Real Estate Group, and Wholesale Banking.

- He has a B.S. in economics from Pennsylvania State University and an M.B.A. from the University of Oregon. Steve served as chairman of the board for NACHA, The Electronic Payments Association, from 2005 to 2008 and was vice chairman from 2009 to 2010. He is currently a board member of First Graduate, a nonprofit focused on helping young adults become the first members of their families to graduate from college.
Jim Smith
Executive Vice President, Wells Fargo Virtual Channels

- Jim Smith is an Executive Vice President of Wells Fargo and serves as head of Wells Fargo Virtual Channels (WFVC), with responsibility for Wells Fargo’s digital, phone, and other remote channels’ strategies and capabilities. He is also a member of the Wells Fargo Management Committee.

- A 22-year veteran with Wells Fargo, Jim has helped bring internet banking and financial services to customers since Wells Fargo became the first bank online. He began his career as part of the Consumer Services Management Training program and has held numerous executive positions, including a variety of roles in digital, technology, data & analytics, and intellectual property. Jim formed the Enterprise Data & Analytics team, served as Chief Data Officer and created Wells Fargo’s Enterprise Patent Office.

- During his tenure, Jim has developed many industry-leading products, including Wells Fargo Mobile, bill pay, several personal financial management tools and payment products. Under his leadership, Wells Fargo has won multiple awards from Keynote, Global Finance, CompuServe and others for digital products and experience, consistently earning top industry and consumer rankings in a wide variety of categories.

- Jim was a founder and former member of the Board of Directors for ClearXchange, a payments company and was a former member of the Board of Directors for the Financial Services Technology Consortium (FSTC) and the Enterprise Data Management Council (EDM).

- He holds an MBA in Strategy & Marketing from the University of Texas at Austin and a bachelor degree in history from the College of William & Mary.
Jonathan Velline
Executive Vice President, ATM Banking & Store Strategy

- Jonathan Velline manages the Wells Fargo ATM business of 13,000 ATMs – the third largest bank ATM network in the United States. Velline is also responsible for developing and implementing store technology, process, staffing, and risk management strategies for the Wells Fargo network of more than 6,000 banking stores.

- Wells Fargo is a leader in finding new ways for ATMs to better serve its customers. Under Velline’s leadership, the company was the first to deploy a modern, web-based ATM technology platform; introduced Envelope Free, bulk-check deposit technology to the U.S.; developed ATM e-receipts; offered credit card rewards redemption at the ATM; and created ATM cash-tracker, an innovative budgeting tool.

- Velline has also modernized the Wells Fargo store experience through new technology and workflow, eliminating paper processes, developing new technology for team members and customers, combining the benefits of self-service and full-service with Assisted-Service ATMs, and deploying the new neighborhood bank format.

- Velline began his career with Wells Fargo in 1991 as a financial analyst, and has held a variety of positions responsible for charting Wells Fargo’s retail banking, technology, and distribution strategy. He also led the regional markets conversions of Wachovia banking stores, in the largest merger in U.S. banking history.

- He holds a bachelor’s degree in economics from the University of California, Berkeley. He serves on the board of directors of the American Red Cross Bay Area Chapter, and Lighthouse Community Charter School in Oakland.