

Is Your Network Ready for the Next Era of Digital Financial Services?

Refreshing your technology can help banks, investment firms, and insurance companies deliver innovative services and sustain competitive advantage while better managing risk and compliance.

The enterprise networks in financial services firms are at a turning point in their need for modernization. Many are no longer able to deliver the performance, security, and capabilities needed to maintain compliance, streamline operations, and use data for competitive advantage. Yet superior network services provide a critical foundation for success in a marketplace where customers and employees expect to conduct digital business easily, securely, and seamlessly.

As an IT leader in a commercial or retail bank, credit union, insurance company, investment firm, or other financial services organization, you likely know the enterprise network is due for an update. Before launching a refresh program, you'll want a sensible strategy for choosing new solutions in order to reduce costs and risks as well as to simplify network infrastructure and management. Today financial services organizations that are planning a technology refresh face five key challenges.



Protecting against always-advancing cybersecurity threats

Massive breaches of personal data produce news headlines, but they're not the only security risk facing financial services companies. Online theft of funds, ransomware, and malware that disrupts digital banking services or spreads to customer devices are ever-present threats. Another factor that hampers cybersecurity efforts: Many financial institutions have legacy technologies that are particularly vulnerable to attack. These security risks rise as financial institutions and their clients make more use of digital and mobile services.

The challenge in this environment is to maintain pervasive and compliant cybersecurity across the firm's network and all connected devices, as well as in the data center and the cloud. More than half of the financial services organizations surveyed for the Cisco 2017 Midyear Cybersecurity Report said they try to address this challenge by using solutions from multiple vendors, which makes for a complex, time-consuming management burden. Data, analytics, and machine learning are becoming instrumental in informing today's smart, secure networks so they can detect and mitigate emerging threats.

Cisco offers a comprehensive approach to cybersecurity that is based on a deep understanding of digital business strategies in financial services. Our products and services are complemented by a powerful security intelligence center that tracks and monitors threats around the clock worldwide and shares this data with our customers. This combination means Cisco offers a groundbreaking portfolio of integrated and automated security solutions designed to deliver several advantages:

- Build a secure foundation for digital transformation with an interconnected and integrated security approach that grows and evolves with you
- Quickly identify and contain threats, and protect financial assets, intellectual property, business processes, and customer data while achieving sustainable compliance
- Provide ubiquitous network security across all branches, departments, and sites
- Integrate and operationalize people, processes, and technology across
 the firm to strengthen security measures, simplify security operations, and
 automate activities for faster threat detection and response

Cisco DNA

Cisco Software-Defined Access

Cisco TrustSec

Cisco IOS Firewall

Cisco Identity
Services Engine

Advanced Malware
Protection for
Email Security

Cisco Stealthwatch

Cisco Umbrella

Cisco Encrypted
Traffic Analytics

Cisco Security
Technology Alliance

Cisco SD-Access Services

Cisco Security
Optimization Service

Advanced Cisco solutions address advanced threats

Cisco® security solutions offer the powerful combination of our experience in protecting large and complex networks and our knowledge of the unique security demands of financial services firms.

The Cisco Digital Network Architecture (Cisco DNA™) embeds security across the network for faster threat detection and mitigation that helps protect customer data and reduce fraud.

Cisco Software-Defined Access (SD-Access) security features help achieve regulatory compliance and add protective measures with end-to-end segmentation that keeps user, device, and application traffic separate—without requiring a network redesign.

Another solution for segmentation, Cisco TrustSec® software, dynamically organizes endpoints into logical security groups that limit the impact of data breaches and compromised devices.

The Cisco IOS® Firewall uses security zone policies to restrict specified users and network entry points from accessing applications containing sensitive information within other areas of the firm.

For mobile access to the enterprise network by employees and guests, Cisco Identity Services Engine (ISE) simplifies delivery of consistent, highly secure access control across wired, wireless, and VPN connections.

Advanced Malware Protection (AMP) for Cisco Email Security provides visibility before, during, and after stealthy email attacks, such as ransomware and cryptoworms, that evade traditional defenses.

"[Cisco's] size and abilities to deliver an integrated security architecture means the value we get is greater than the sum of its parts. It's a big win when we can benefit from shared intelligence across platforms."

Lachlan Peters, Security Team Leader, Heritage Bank Cisco Stealthwatch® provides continuous, real-time monitoring of all network traffic and accelerates response times for suspicious incidents.

As a cloud-delivered, secure Internet gateway, Cisco Umbrella™ delivers complete visibility into Internet activity across all locations, devices, and users, and blocks threats before they reach your network or endpoints.

With Encrypted Traffic Analytics, network managers and security teams can see if encrypted traffic contains malware—without decryption. Using Cisco threat intelligence capabilities and machine learning, the solution continually improves its malware detection capabilities.

In addition to Cisco security solutions, we work with other vendors in the Cisco Security Technology Alliance. This ecosystem facilitates open, multivendor product integrations to improve security effectiveness.

Cisco professional services work with you to improve network security. SD-Access Services help you manage, scale, and secure a Cisco SD-Access solution. For assistance with end-to-end security improvements, the Security Optimization Service helps identify the best approaches to system design and implementation of new technologies.

Case study: Heritage Bank gains Advanced Malware Protection

To address the growth of encrypted traffic and advanced attacks, Heritage Bank in Australia needed increased security visibility and protections. The bank found what it was looking for in the combined capabilities of Cisco AMP for Endpoints, Cisco AMP for Networks, Cisco Threat Grid, and Cisco Firepower® Management Center.

Cisco mobility solutions
Cisco and Apple

Cisco Connected

Mobile Experiences

Cisco Network
Architecture
Migration Services

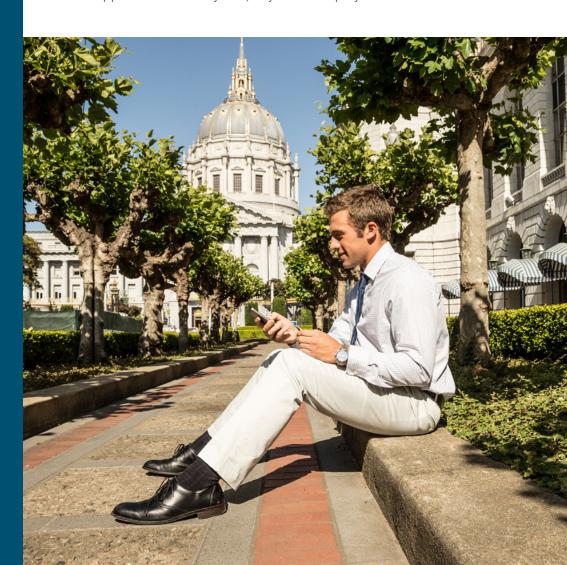
Cisco Mobility
Experience Services

Better mobility for employees and customers

Financial services delivered to customers are increasingly software driven and mobile-centric. Employees and customers alike expect to use their own, familiar mobile devices, especially Apple iPhones and iPads. Firms also want to use mobile technologies to empower their workforce for higher levels of productivity as well as to improve customer acquisition and retention. Meeting these goals requires a highly secure, wireless network that has adequate bandwidth and is optimized to support the latest mobile technologies for delivering business-critical workflows.

Better mobility support can yield several business improvements:

- Ability to understand customer behavior, personalize their experiences, and offer targeted content and products on mobile devices
- Reduced waiting times and labor costs in branches
- More opportunities for anytime, anywhere employee collaboration





"We've raised internal service levels and are seeing a 25 percent increase in productivity and employee collaboration using Cisco solutions."

Terry Phelps,
Senior Vice President,
Management Information
Systems, Local
Government Federal
Credit Union

Mobility solutions from Cisco extend service reach

Cisco solutions for mobility give staff and customers better ways to communicate and access digital services.

For employees, Cisco enterprise mobility solutions support secure bring-your-own-device (BYOD) access to the corporate network. Within a main office or branch, Cisco 802.11ac Wave 2 wireless solutions deliver speeds that are up to 11.5 times faster than the previous-generation technology.

Apple and Cisco together are creating the world's best app and voice experience for iPhone and iPad on corporate networks. Cisco is the only vendor to team up with Apple to deliver better mobile experiences built on optimized Wi-Fi and roaming.

Cisco solutions also transform the wireless experience in a branch. Cisco Connected Mobile Experiences delivers personalized content through mobile apps for new levels of customer engagement and insight into customer behavior.

When deploying solutions under a new architecture, Cisco Network
Architecture Migration Services help reduce time to completion and lessen
any negative effects on your production environment. Cisco Mobility
Experience Services help create personalized mobility experiences that will
delight customers and employees.

Case study: Credit union improves service with collaboration

Local Government Federal Credit Union in North Carolina wanted to extend the capabilities of its network infrastructure to meet employee expectations and help them better serve members. This goal was met with a solution that combines Cisco Jabber®, Cisco Spark™, and Cisco WebEx® with Cisco Meraki® Wi-Fi, all running on a Cisco network, data center, and security foundation.

Cisco Catalyst switches

Cisco DNA for Financial Services

Cisco DNA Center Analytics and Assurance

Cisco DNA Advisory
Service

Cisco Migration
Support Services

Cisco Network
Optimization Service

Cisco Solution Support

Cisco Smart Net Total Care Service



A network that serves the speed of business

The impacts a slow network can have on customer service and employee productivity are no longer acceptable. Firms looking to digitize their business operations will evolve to a network that operates at high digital speed. This evolution will also simplify the network and automate processes, freeing IT resources to deliver on service-level agreements more quickly to better meet business demands.

Improved network performance benefits everyone:

- A firm can offer a better experience for customers and employees, especially in the branch and on mobile platforms
- The ability to collect and manage large amounts of data over the network allows employees to use more in-depth business intelligence to make better business decisions
- Firms gain greater agility to adapt to customer trends, regulatory changes, fast-changing technology, and competitive environments

"We needed a proven IT architecture to turn the business into a digital pacesetter, so we could fasttrack customer experience improvement and make our staff and business processes more efficient."

Patrick Drew, Assistant VP of Network Infrastructure, Huntington National Bank

Cisco solutions for improving network performance

Several Cisco technologies focus on increasing network speed and performance.

To support higher-capacity networking, **Cisco Catalyst®** switches with Multigigabit Ethernet technology deliver speeds beyond 1 Gigabit Ethernet on existing Category 5e and 6 cables.

Cisco DNA for Financial Services provides a roadmap to update branch office and corporate networks faster and build an infrastructure that supports customer trends, service imperatives, and business growth.

Cisco DNA Center Analytics and Assurance features predict network performance and problems, then recommend solutions to reduce downtime.

The Cisco DNA Advisory Service helps you create a strategic plan for implementing new technologies and automated business processes in the enterprise network. Cisco Migration Support Services help reduce the risk of operating with unsupported, aging technologies while you plan and implement a network migration. The Cisco Network Optimization Service optimizes the network and devices to help your infrastructure operate with stability and peak efficiency as data volumes increase. Cisco Solution Support offers centralized issue management and resolution for Cisco and eligible solution partner products. Award-winning technical support is delivered by the Cisco Smart Net Total Care™ Service.

Case study: Huntington National Bank achieves business goals faster

The <u>Huntington National Bank</u> IT team needed to spend less time on short-term fixes and more time finding innovative solutions. A lifecycle of Cisco Services and Cisco DNA helps the bank provide nonstop access to data and applications while protecting against cybercrime and threats.

Cisco DNA Center
Cisco ONE Software

Cisco Enterprise
Network Functions
Virtualization

Cisco DNA Center
Advise and
Implement Service

Cisco Enterprise
NFV Advise and
Implement Service

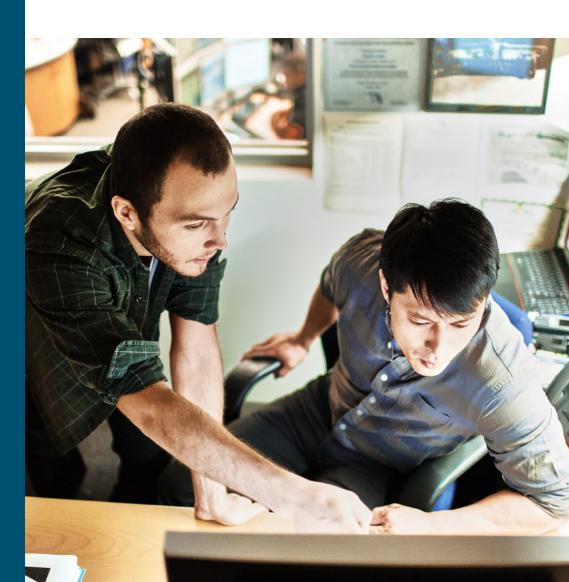
Keeping pace with business change

The network already plays a key role in improving the cost-effectiveness of your account services and branch operations. A network refresh opens the way for even more high-impact initiatives to reduce costs, deliver cross-channel services, and improve IT operations.

A modern network that integrates automation, virtualization, analytics, and cloud functionality into one architecture supports:

- Automation and services to manage routine IT tasks
- Connecting legacy software systems with new apps and digital banking tools inside a hybrid cloud and DevOps environment
- Configurations that dynamically manage network resource capacity in response to business needs

Greater network flexibility also makes it easier for IT to keep up with dynamic business activity while continuing to address risk and compliance concerns.



"Introducing a centrally managed network like Cisco ACI is a massive game changer."

Beat Eichenberger, Head of IT Infrastructure, Audatex

Cisco solutions that ease a network refresh

A smart refresh strategy takes a comprehensive look at all areas for improvement in network infrastructure and management.

Cisco DNA Center is a centralized application that simplifies network management, using automation to reduce costs, assurance and analytics to improve network performance, and security to reduce risk.

The Cisco ONE™ Software offering presents a flexible way to buy software for the Cisco products in your data center, WAN, and access domains. The ability to port Cisco ONE licenses to the next generation of applicable devices locks in future value.

For fast site delivery and lower costs, Cisco Enterprise Network Functions Virtualization (NFV) allows software deployment of infrastructure functions such as routing, firewall, intrusion detection and prevention, wireless LAN control, and WAN acceleration services.

The Cisco DNA Center Advise and Implement Service helps with a rapid and successful deployment of the Cisco DNA Center solution. The Cisco Enterprise NFV Advise and Implement Service provides an adoption and migration plan for moving to a virtual branch solution.

Case study: Audatex centralizes data operations in a private cloud

Insurance firm Audatex in Switzerland wanted to create an easily scalable private cloud and centralize data operations without making a huge upfront investment. These requirements were met with a Cisco Application Centric Infrastructure (Cisco $ACI^{\mathbb{M}}$) solution, Cisco $UCS^{\textcircled{0}}$ servers, and the Cisco ONE Enterprise Cloud Suite.

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Cisco Solutions

Cisco DNA
Cisco UCS

Cisco Meraki Location Analytics

Cisco DNA Advisory Service

Accessing data for fresh insights

Firms looking to digitize more of their business activity will need to evolve to a network with the capacity and design for big data and real-time analytics.

Lines of business want to move from vertically siloed, product-focused planning to customer-centric, digital, service-oriented operating models. This move requires better capture and sharing of data about customer transactions and mobile access across the organization. When business teams use data to better understand customer needs, they can improve customer retention rates and differentiate digital services.

Key business benefits of a network migration to support more data include:

- Increased customer loyalty and reduced account attrition through smarter personalization and differentiated services
- Ability to build new, customer-centric business models with data sharing across the organization
- Real-time insight and a historical basis for more intelligent decisions about business operations

Greater network flexibility also makes it easier for IT to keep up with dynamic business activity while continuing to address risk and compliance concerns.





"We view Cisco as a key partner, and Cisco UCS is a wonderful platform for innovation."

Nicola Carotti, Intesa Sanpaolo Group Services

Cisco solutions for data intelligence and management

Virtualized servers in the data center and analytics for customer activity in the branches are two solutions that help firms obtain value from growing amounts of data.

Cisco DNA generates networkwide analytics to help you personalize customer engagement and improve front-office and back-office productivity.

Cisco Unified Computing System™ (Cisco UCS) servers process data streams and connect them to analytics applications hosted in the cloud or the data center.

Cisco Meraki Location Analytics provide useful insight into branch trends such as foot traffic by time of day, new and repeat visitors, and visitor dwell time based on beaconing from Wi-Fi devices.

Cisco DNA Advisory Service helps you improve customer service through enhanced analysis of data collected from the network infrastructure and application performance.

Case study: European bank uses data to drive new services

Intesa Sanpaolo wanted to use technologies such as cloud, big data, and predictive analytics to drive new services. Cisco infrastructure—including unified computing, routing, switching, and security services—provided a platform for the bank's innovation.



A network that's ready for the next era of digital financial services

Mobile and flexible, intelligent and personal—these customer expectations signal a new era of digital financial services. And as new competitors emerge and customer loyalty declines, digital services become even more important for differentiating a firm.

Refreshing your financial services network now will position your organization to keep pace with the challenges of today and be ready for new opportunities to streamline business operations, maintain compliance, and deliver excellent customer service.

For more information

Read more about Cisco solutions for financial services.