



Imagine a simple,  
secure, and intelligent  
way to connect.

Between any cloud and the right  
cloud, there's a bridge.

# Industry's guide to multicloud

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# 03

## Introduction

Imagine if it were easier to take advantage of all that multicloud has to offer. Imagine if your industry could rest assured that data and assets were securely protected. Imagine what your business could do with reliable and fast connections that are easily managed. Imagine how agile and innovative your teams could be with solutions that create transformative experiences for you and your customers.





You are expanding to the cloud to accelerate building the next generation of digital experiences. But optimizing multicloud environments is complex. This new reality is a highly distributed environment, and that creates a new set of challenges. Organizations are required to manage a set of variables (users, apps, data, devices) that are changing constantly. IT architectures must be reinvented for the realities of this next-generation digital world. This is where Cisco can help.



By bringing together application management, security, and networking to optimize your multicloud environment, Cisco brings consistency across all your domains: on-premises (campus, branch, data center, and IoT) and public cloud/software-as-a-service (SaaS) providers. With richer features and deeper integration, Cisco® solutions can help you create seamless experiences and customized solutions. Your organization will be able to adapt and innovate faster in an increasingly complex multicloud world. With the right connections, your teams can increase efficiency and agility by driving secure, consistent, and production-grade user experiences across your on-premises environments and into the cloud. By simplifying how you connect, protect, and consume clouds, you get to imagine a multicloud world ... made easier.



# Healthcare

*Imagine how flexible, secure cloud sharing could benefit patient care.*

Healthcare is beginning to embrace the cloud for its flexibility and expandability. Imagine what you could do with the physical space that's now used for holding data. Imagine investing in technology that grows with you, is easier to manage, and increases agility. Imagine being protected from data loss due to natural disasters. These are just some of the ways that having the right multicloud strategy makes connected care better care.



With Cisco cloud solutions, healthcare organizations can:

- Personalize patient experiences with protected mobile experiences, improved wayfinding, and telehealth that's integrated with electronic health records (EHR).
- Streamline clinical experiences with video consultations, health team collaboration, and virtual patient observation.
- Facilitate compliance with healthcare cybersecurity and network microsegmentation.
- Optimize operations with administrative collaboration, network optimization, and next-generation data center.



20% reduction in  
deployment cost

98% less time to  
complete HIPAA  
compliance audits





*“If the medication software dosing was offline, Acadia stood to lose almost 70% of their business revenue.”*

*– Eric Lester,  
director of network services,  
Acadia Healthcare*



*600% improvement in app  
performance*

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Healthcare case study

## Acadia's experience: A significant issue inspires a smart solution.

Acadia Healthcare provides specialized care for behavioral health and substance abuse sufferers and is one of the fastest growing medical organizations in business today. When Acadia learned that its dosing software provider would be porting its software to a SaaS-based model, it knew it needed Cisco's help.

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### The problem

Acadia had many locations with poor Internet connectivity. If access to its medication dosing SaaS was offline, Acadia stood to lose almost 70% of its business revenue.

### The solution

Using Cisco SD-WAN at the Internet edge, Acadia was able to use the existing Multiprotocol Label Switching (MPLS) circuits for SaaS connectivity, along with backup broadband circuits that were brought in for survivability.

To keep backup links from being saturated, thresholds were set with Cisco SD-WAN. As a result, traffic was migrated to the backup link sooner so the business could continue to operate without everything going down at once.

### The benefits

Acadia's risk of revenue loss due to poor connectivity was entirely mitigated, and the company was able to continue using its SaaS provider to supply patients with the necessary medications. Acadia was also able to reduce costs by using data pulled from its MPLS circuits.

*“Their risk of revenue loss due to poor connectivity was entirely mitigated.”*

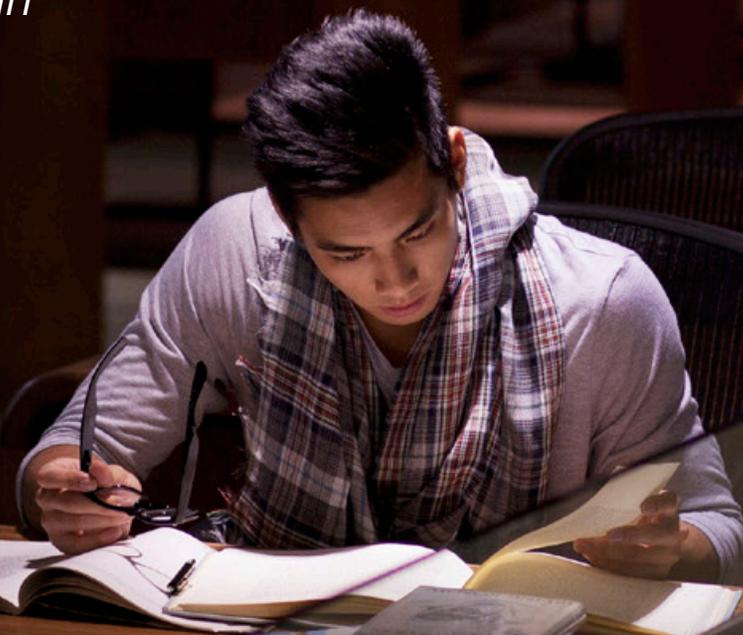
*– Eric Lester, director of network services,  
Acadia Healthcare*



# Education

*Imagine empowering student success through enriched learning and campus experiences.*

Schools and universities everywhere need to expand access to education, boost student engagement, and ignite innovation. They need to make their campuses and digital learning environments safer, more efficient, and more accessible—and they can do it by starting with the cloud. Imagine safeguarding students and their data, on campus and online. Imagine better classroom collaboration and professional development opportunities for teachers. Imagine detecting and neutralizing security threats before they become a problem.





With Cisco cloud solutions, education institutions can:

- Promote active learning with distance learning, active learning spaces, and faculty professional development.
- Facilitate safety and security by using video surveillance; access control; and network, endpoint, and web security.
- Fuel innovative research with high-performance computing, cloud data security, and research collaboration.
- Streamline administration with data-informed operations, administrative collaboration, and student engagement and retention services.



78% of students agree that technology contributes to the successful completion of courses.<sup>1</sup>



49% of institutions rated increased operating efficiency as a first or second priority.<sup>1</sup>



*“The capabilities and reporting we get with Umbrella and Firepower put us in a much better position to be able to quickly figure out what’s going on and remediate issues.”*

*– Chris Langford; director of network, infrastructure, and cybersecurity; Lewisville Independent School District*



*46% of students are more actively involved in courses that use technology.<sup>1</sup>*

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Education case study

## Lewisville Independent School District (ISD) finds a way to give students and educators a better experience.

Lewisville ISD needed an affordable, effective way to secure its 53,000 students and 6000 staff members. Cisco's security architecture, based on the Cisco Umbrella™ platform and Cisco Firepower® Next-Generation Firewall (NGFW), exceeded its expectations.

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### The problem

Lewisville wanted to improve its security to keep its staff and students safe from inappropriate content and threats. It needed to do this on a school-friendly budget.

### The solution

Cisco provided Lewisville ISD with an efficient and cost-effective way to update and strengthen its cybersecurity.

The first part of the project with Cisco was the Cisco Umbrella platform with advanced Domain Name System (DNS) security from the cloud that proactively blocks threats before they can reach the network.

Pairing Cisco Umbrella with Cisco Firepower 4150 NGFWs increased security by expanding visibility and the depth of granular reporting into the network.

Lewisville has continued to grow its enterprise license agreement (ELA) ecosystem as each part communicates with and enhances the other. It now includes Cisco Advanced Malware Protection (AMP) for Endpoints, Cisco Identity Services Engine (ISE), Cisco Cloud Email Security (CES), the Cisco Stealthwatch® solution, and Cisco Security Connector. The district enjoys increased automation and stronger security with each addition.

### The benefits

Lewisville ISD's BitSight score increased from 570 to 640 in just four weeks. Educators were able to decrease remediation time by 50 percent with students that were less distracted.

The district experienced a significant decrease in command-and-control traffic and phishing scams.



# Financial services

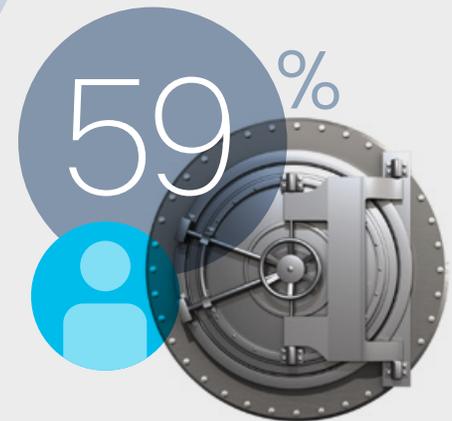
*Provide exceptional customer experiences that deepen loyalty.*

Imagine an intelligent network with intuitive solutions for today's financial services institutions. Imagine a customer experience built on actionable insights and true team collaboration. Imagine staff freed to innovate by empowered, interactive platforms.



With Cisco cloud solutions, financial institutions can:

- Personalize customer experiences with remote expertise, interactive signage, and an omnichannel experience.
- Empower branch staff with customer insights, mobile sales management, increased collaboration, and new business applications.
- Streamline operations with operational insights and optimized branch connectivity.
- Secure the brand with cybersecurity, physical security, and operational risk and compliance.



65% of developed markets and 53% of emerging countries have significant concerns about privacy, security, and identity theft.<sup>1</sup>

65% of customers would be in favor of bank branches that offered an expanded portfolio of financial and advisory services.<sup>1</sup>

1. <https://newsroom.cisco.com/press-release-content?articleId=910154&type=webcontent>



*“We know that convenience and access to information is important to our customers, so we partnered with Cisco to deploy our Video Banking pilot program in 17 branches located in four retail markets.”*

*– Theresa McLaughlin, group executive vice president and chief marketing officer, RBS Citizens Financial Group*



*28% of bank customers globally do not trust banks to represent their best interests.<sup>1</sup>*

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Financial services case study

## Huntington Bank lowered its costs while giving its customers more.

Huntington Bank was growing rapidly and needed digital innovation to stay ahead of its competitors. Specifically, it wanted to improve customer and employee experiences and be able to roll out new branch offices quickly without a considerable increase in costs.

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### The problem

A mix of legacy infrastructure created inconsistent performance experiences, and IT was spending too much time on managing it all.

### The solution

With a lifecycle of Cisco services like advisory implementation, training, and technical services, Huntington Bank reduced risks and assured best practices.

Using Cisco Digital Network Architecture (Cisco DNA), the bank gained speed and reliability, while Cisco switching and wireless solutions provided nonstop access to data and applications. To protect against cybercrime and threats, Huntington Bank relied on Cisco Security Services. Finally, Cisco Intelligent WAN (IWAN) allowed the bank to keep fund growth and future services costs down.

### The benefits

Huntington Bank was able to avoid a 60+ percent increase in network expenses for redundant links.

The bank saw agility, productivity, and service increase dramatically, delivering a higher return on investment while accelerating growth.

*“With zero-touch deployment tools, new branches are up and running in days, instead of weeks or months. We are also positioned to offer Wi-Fi.”*

*– Patrick Drew, assistant VP of network infrastructure, Huntington National Bank*



# Utilities

*Solving modern energy problems  
with simple and smart solutions.*

Imagine secure connections even in remote locations. Imagine simple applications that are accessible to employees at every level of technical understanding. Imagine secure remote access with data sharing between distant and onsite teams.



With Cisco cloud solutions, the energy industry can:

- Increase security by using multifactor authentication; video surveillance; and network, endpoint, and web security.
- Simplify IT management by using remote management capabilities, modernized infrastructure, and operational insights.
- Increase scalability through quicker deployment, lower costs, and hyperconvergence solutions.



64% of chief security information officers and security operations managers in the utilities sector use mobile security tools.<sup>1</sup>

56% of IT security professionals in utilities use cloud-based web security.<sup>1</sup>

1. [https://www.cisco.com/c/dam/en\\_us/solutions/industries/docs/energy/security-benchmark-study-utilities.pdf](https://www.cisco.com/c/dam/en_us/solutions/industries/docs/energy/security-benchmark-study-utilities.pdf)



*“We’re able to deploy a new virtual server, off template, complete with storage and patching, and ready to go, in under 20 minutes.”*

*– Simon English, manager of operational technology, Ergon Energy*



*73% of utilities have suffered a security breach that led to public scrutiny.<sup>1</sup>*

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Utilities case study

## AmeriGas keeps more than 2 million customers comfortable.

With more than 2000 distribution centers and 9500 employees, AmeriGas is the largest retail propane provider in the United States. The company was looking for a solution that would be secure while providing its various employees with simple access.

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### The problem

Having both external IT contractors and internal employees accessing sensitive information, AmeriGas needed to secure remote access whether the device was company supplied or personally owned (BYOD).

With many of its employees unfamiliar with authentication technology and having limited computer experience, AmeriGas needed a solution that was simple to use. The company also wanted to minimize the impact on restricted IT resources.

### The solution

With Duo, a multifactor authentication (MFA) system, AmeriGas was able to provide a simple user interface for its various employees, while providing the robust security the company required.

Duo's simplicity also meant AmeriGas's small IT staff could quickly and easily integrate all of its on-premises and cloud applications and roll them out to users.

AmeriGas coordinated the rollout of SAP SuccessFactors payroll functionality to help the company get used to MFA in a setting where it understood the need to protect employees' personal information.

### The benefits

Using Duo, AmeriGas employees gained easy but secure access with a great user experience. Duo's self-service portal made it simple for them to self-enroll, add, and update their devices.

Slowly acclimating users to MFA first helped AmeriGas's employees embrace it easily in other applications.

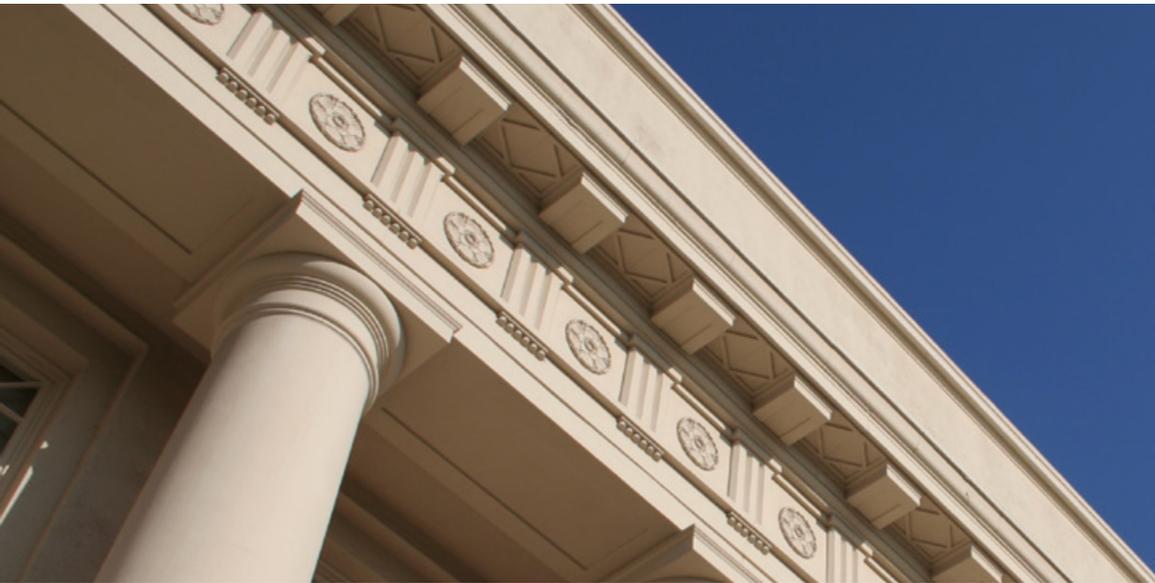
MFA has helped AmeriGas perform above the minimum required by the Payment Card Industry Data Security Standard (PCI DSS), as it has applied best practices for user authentication across its entire user base.



# Government

*Multicloud could transform your ability to deliver services.*

Imagine reducing costs and stretching resources further by streamlining IT management. Imagine being able to adapt more quickly with flexible and expandable systems that are a better financial investment. Imagine being able to improve your ability to provide for your citizens and secure their data.



Government organizations with Cisco cloud solutions can:

- Reduce risk with compliant architectures and technologies, deeper visibility, and suspicious activity detection even in encrypted traffic.
- Collaborate securely with united applications and endpoints, secure conferencing, and FedRAMP-authorized solutions.
- Modernize as needed with accelerated management, real-time analytics, and implementation services.

*“Due to our innovations, Durham County was recently named as a top-5 digital county in the country.”*

*– Joel Bonestell, network and security manager, Durham County Government*



*“Cisco Stealthwatch is an essential security tool for us as it lets us be more efficient in detecting threats in the network, and that helps me sleep at night.”*

*– Joel Bonestell, network and security manager,  
Durham County Government*

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Government case study

## The American Federation of Government Employees (AFGE) protects the data of the people it serves.

More than 670,000 federal and District of Columbia government workers rely on the AFGE for legal representation, legislative advocacy, technical expertise, and informational services. Entrusted with this responsibility, the AFGE needed a robust security solution.

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### The problem

The AFGE was looking for a better way to monitor network traffic in virtual private clouds. It needed a solution that would provide visibility into all its devices on its public cloud infrastructure and their network activity.

Due to the nature of its service, the AFGE was also very concerned with protecting members' confidential information. It needed to be able to identify vulnerabilities, and it wanted to add increased security solutions that would complement its existing tools.

### The solution

Cisco Stealthwatch Cloud SaaS allowed the AFGE to protect its cloud assets and private network. It could now "see" all IP traffic in its cloud networks at a

glance, allowing the AFGE to extend traditional network security into public cloud networks, an area that most traditional security tools can't address. It could now identify previously undetectable threats in real time. Stealthwatch Cloud also gave the AFGE access to security intelligence, making its teams more efficient.

### The benefits

The AFGE was able to very quickly implement a solution that gave it the complete visibility it needed into network traffic in its public cloud infrastructure. The service-based delivery model that it used reduced costs and minimized the number of people needed for oversight. The AFGE now enjoys a sense of security knowing that its members' data is protected.



# Retail

*A connected retail experience  
could scale your brand.*

Imagine a strategy that modernizes the retail infrastructure, is easy to migrate to, and is scalable for various environments across a multicloud world. Imagine using data to personalize the shopper's journey and to create interactive platforms that increase engagement. Imagine a holistic approach that protects your brand from threats against you and your customers.





## Cisco cloud solutions can help retailers:

- Improve customer experiences with customer insights, interactive signage, mobile self-checkout, and mobile engagement.
- Increase associate productivity with mobile point of sale (POS) and streamlined fulfillment.
- Increase brand security with loss prevention, threat defense, and monitoring of assets.
- Increase visibility across the entire retail value chain, including supply chain, and reduce stock-outs, optimize inventory levels, and capture real-time location data on people and assets.



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90% of consumers are using smartphones for shopping.<sup>1</sup>

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93% of retailers identify hybrid cloud as the ideal solution for their IT environments.<sup>1</sup>

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*“Meraki has helped SoulCycle be aggressive in terms of our deployments, our growth, and our scale. I don’t think there’s another product out there that can allow us to do IT refreshes in the time that we have with Meraki.”*

*– Derek McWilliams, IT engineer,  
SoulCycle*

88%  / 

*88% of retailers anticipate hybrid cloud will positively impact their business.<sup>1</sup>*

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Retail case study

## Tommy Bahama improved its connections and delighted its customers.

Tommy Bahama is a Seattle-based retailer of resort clothes, accessories, and home décor, with more than 130 stores and 15 restaurants worldwide. The company was ready to upgrade but needed a fast deployment to support an upcoming promotion.

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### The problem

Tommy Bahama wanted to reduce the amount of time needed to manage its systems. It needed a solution that featured remote troubleshooting so that it could easily manage its branch locations. It also wanted to support mobile POS in its stores and needed a more reliable network to make it happen.

### The solution

Tommy Bahama chose the Cisco Meraki® solution because it had the centralized management from the cloud that the company was looking for, with visibility across multistore networks. Meraki offered PCI compliance and had the bandwidth monitoring and traffic-shaping capabilities Tommy Bahama wanted. More importantly, Meraki could be deployed quickly for iPad POS and Tommy Bahama's planned promotion.

### The benefits

Tommy Bahama had the Cisco Meraki wireless network successfully up and running in all 100 U.S. stores, ready to support its iPad promotion within a single month. Its customers now enjoy reliable Wi-Fi and customized splash pages.

These results have been achieved with 100 percent uptime since deployment on a system that requires minimal management via a web-based dashboard.

*“The Meraki dashboard makes it easy to manage the Wi-Fi across all the restaurants, and we have the visibility we wanted.”*

*– Leslie McMaster, network administrator, Applebee's*



# Manufacturing

*IT and operations understanding each other and working better together*

Imagine increased speed, agility, efficiency, and innovation.  
Imagine placing data at the center of your process so that  
your teams are making smarter and better decisions.



Cisco cloud solutions in manufacturing facilities result in:

- Reduced downtime with real-time decision making through fog computing and predictive maintenance
- Unified industrial security by protecting intellectual property, protecting machine and database connections, and ensuring that regulatory requirements are met
- Accelerated innovation by connecting IT and operations, providing data-driven insights, and streamlining new product introduction processes



23% decrease in new product introduction cycle time<sup>1</sup>

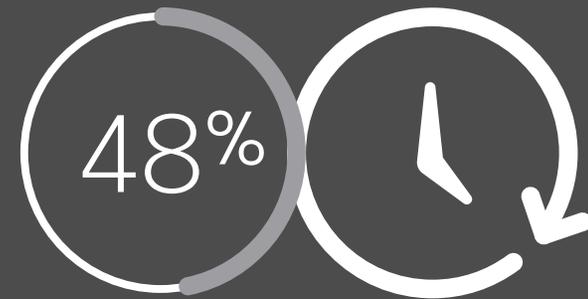
35% increase in inventory turns<sup>1</sup>

1. <https://www.cisco.com/c/dam/assets/docs/becoming-smarter-manufacturer.pdf>



*“We chose Cisco HyperFlex  
because it set itself apart from  
anything else we saw.”*

*– Erik Silders, network manager,  
Mayfran International*



*48% reduction in  
unplanned downtime<sup>1</sup>*

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Manufacturing case study

## Mayfran International increased innovation and improved workflow.

Mayfran International is a machine manufacturing company that designs conveyors to help companies move scrap metal, scrap materials, or waste from their sites. Designs are customized to meet each company's individual needs, requiring Mayfran engineers to constantly innovate new solutions.

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### The problem

Mayfran's aging, traditional SAN wasn't meeting its needs. The company needed more flexibility, efficiency, and power.

It also wanted to increase the productivity of its engineers with a solution that would allow them to work on new conveyor designs from anywhere in the world, and speed up the design process.

### The solution

Mayfran used Cisco HyperFlex™ systems with a virtual desktop infrastructure to allow engineers to connect to back-end systems and work on conveyor designs remotely.

With Cisco HyperFlex support for NVIDIA GRID, the graphics acceleration that the engineers needed for applications like Autodesk Inventor was there.

### The benefits

Mayfran now has the power and flexibility it needs, and the company's productivity has increased as a result. Engineers can work from wherever they are, on multiple files. A design file that used to take 15 to 20 minutes to load now loads in seconds, and they're saving hours a day on rendering time. And because Mayfran can now walk clients through new conveyor designs as they are being developed, engineers find the best solution in a shorter amount of time.

*“Before, it would take 15 to 20 minutes to open each design file. Now it only takes four minutes.”*

*– Clint Nagy, project engineer, Mayfran International*

By bringing together application management, security, and networking, Cisco has a comprehensive portfolio of software, infrastructure, integrated solutions, and services to enable organizations to optimize their multicloud environments.

Learn more at [www.cisco.com/go/cloud](http://www.cisco.com/go/cloud).

See more examples of how Cisco industry solutions can accelerate your digital transformation, whether you're in the public sector or consumer industries.



[www.cisco.com/go/industries](http://www.cisco.com/go/industries)

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