



CIO's Definitive Guide to Achieving Secure Cloud Networking





Introduction

CIOs and IT departments are experiencing increased pressure to deliver more with less while facing the acceleration of technology demands. In this guide, you will learn how several key verticals are moving to the cloud to circumvent business and IT challenges in order to be set up for success against future demands.

Is your business challenged by any of these common denominators? If so, consider migrating to a cloud-managed solution such as *software-defined wide area network (SD-WAN)* or *Network as a Service (NaaS)*. Through properly implemented cloud managed services, your enterprise can more easily achieve the following:

- **Address** the many crucial data security concerns involved with hybrid networking infrastructures.
- **Ensure** that your organization has all the bandwidth and connection reliability it needs to stay functional—especially during periods of peak activity.
- **Leverage** cloud managed services to automate and delegate day-to-day IT burdens and do more with less.
- **Deliver** a consistently high-quality experience to your users, clients, and customers in order to stay competitive in a constantly evolving landscape.

- **Empower** bring-your-own-device (BYOD) functionality and give your remote workforce the tools it needs to be effective.

Solution options

Three powerful cloud managed services are available from CBTS:

- 1. Cloud-delivered SD-WAN as a Service.** Provides limitless and optimized access across the entire enterprise organization for cloud applications and services while simplifying implementations and centrally managing all network activity.
- 2. Cloud-managed Network as a Service (NaaS):** Scalable method of supporting, maintaining, expanding, and securing today's commercial networks with cloud integration, security, switching, Wi-Fi, management, monitoring, and auto VPN.

3. Check Point Security, including Harmony Connect and Harmony Email and Office. These cloud-delivered secure networking solutions act as safeguards for NaaS or SD-WAN solutions. Once implemented, they sync with your WAN to provide advanced threat detection and prevention capability to modern, highly-dispersed hybrid, remote, and multi-cloud network environments. In this way, you can protect your entire cloud networking environment with a single umbrella security solution capable of detecting and defending against any digital threat.

These solutions are fully managed by a bench of 700+ certified engineers and are designed to bring value to SMB and midmarket companies with 1-1,000 employees, as well as enterprise organizations with more than 1,000 employees, across verticals.

Benefits

Benefits you'll experience, allowing you to seamlessly grow your business:

- **Revolutionary:** Cloud-delivered and agile way to deploy, manage, and monitor hybrid public, private, wireline, and wireless networks.
- **Flexibility:** If you are a growing multi-site business, you can quickly add new locations to your network without the expense incurred by expensive MPLS solutions.
- **No touch deployment and management:** All deployment and related tasks are managed by CBTS, and certified experts manage and support the network 24x7x365.
- **Visibility:** Centralized web dashboard acts as a single pane of glass. Mobile-enabled cloud dashboard for entire network management leveraging real-time data and network analytics.
- **Control applications, users, and devices:** Search for users by device type (PC, mobile

phone, tablet, etc.) and monitor your application usage.

- **Improved performance:** Equivalent reliability and security with improved performance over MPLS at a lower cost.

Cloud managed services such as cloud-delivered SD-WAN and NaaS give businesses access to customized solutions while eliminating capital investments into expensive private MPLS links and network equipment. Clients with single-site locations can focus on their businesses while CBTS manages their network and IT needs. Clients with multi-site locations can enjoy full stack deployment for a predictable monthly fee.

Ultimately, SD-WAN and NaaS allow organizations—and their IT teams—to focus on mission-critical applications that drive business outcomes.



How SD-WAN and NaaS are transforming retail, healthcare, education, and other industries

SD-WAN and NaaS easily adapt to the specific needs of multiple industries that traditionally have relied on internal IT resources to manage the costs and complexities associated with wide area networks. This allows organizations to navigate changing trends such as the “bring your own device” (BYOD) phenomenon and the Internet of Things (IoT).

IT organizations are under pressure to shift from cost centers to revenue generators—a transition that necessitates internal IT employees to focus on mission-critical applications. Consequently, organizations are offloading responsibilities for networking to a third party, just as they have moved toward a Software as a Service approach.

CBTS recognizes the need to provide businesses with scalable methods of supporting, maintaining, expanding, and securing commercial networks. SD-WAN and NaaS eliminate the capital expenses that come with building out individual networks or performing forklift upgrades to replace aging equipment that doesn’t meet traffic and applications demands.

Organizations across verticals can benefit from replacing expensive MPLS networks with the flexibility of SD-WAN or NaaS depending on the business challenges to be overcome. CBTS offers complimentary consultations with expert engineers who work alongside you to determine how SD-WAN or NaaS will deliver significant benefits to your business.

- **Retailers** with multi-store locations and business offices can securely connect end points, including increasingly wireless point of sale devices and kiosks. In addition, they’re able to provide an enhanced quality of experience end-to-end where voice applications directly equate phone calls with revenue opportunities.
- **Restaurant chains** can provide network connectivity to new locations and securely segment their network Wi-Fi for employee vs. customer use.
- **Manufacturing facilities** can reduce capital costs and down times thanks to scalable, reliable connectivity, and IoT devices.
- **Education sector** can securely accommodate both staff and student connectivity within existing budget and resource limitations.
- **Healthcare satellite clinics and short-term research labs within hospitals** enjoy the flexibility of efficiently spinning up and down branch locations to meet customer needs. In addition, they now have the benefit of expanding existing product lines and meeting the increasing bandwidth requirements and performance of cloud applications and services.
- **Financial organizations** are able to backhaul traffic to a single, secure location, plus future-proof infrastructure to meet the demands

of mobile, time-starved customers. NaaS guards from inappropriate or harmful content, maintaining productivity and compliance with applicable business and regulatory requirements. Plus, NaaS delivers enterprise-grade firewall and security components to shield your network.

- **Government**, both local and state, is improving connectivity and increasing internal IT resource bandwidth while managing budget constraints.

Regardless of the industry vertical, SD-WAN and NaaS from CBTS are an investment in future-proofing the network and reducing the barrier to utilizing corporate-wide cloud-based applications and services. In addition, these cloud managed services are available as a utility pricing model for businesses across the United States.

Through SD-WAN and NaaS, CBTS supports the entire spectrum of network and IT infrastructure requirements. This occurs via leveraging a software-defined approach to networking that responds dynamically to application and traffic requirements. CBTS makes managing hybrid, public, and private networks with remote sites more affordable and less complex. Let CBTS help you migrate to a high-performance network away from the expense of private Internet connections and alleviate IT management burdens.



Vertical-specific overviews and case studies

Retail

Overview

With the advent of online shopping, physical retailers are working tirelessly to add value to their customer experiences. To do this, they need actionable information from their consumers. Both SD-WAN and NaaS have the power to bring network visibility and control back into the hands of retailers.

SD-WAN provides limitless and optimized access across the entire organization for cloud applications and services while simplifying implementations and centrally managing all network activity. In addition, NaaS offloads many of the network responsibilities, including security monitoring, administration, and troubleshooting.

Pain Point 1—Constant and multi-site connectivity: The solution offers redundancy so that mission-critical applications are always available. Scale up or down through seasonal fluctuations and leverage innovations including “pop-up stores.”

Pain Point 2—Vendor relationships: The solution eliminates multiple vendors that have traditionally been required to manage various network components and applications.

Pain Point 3—Need for speed: Solution supports increased bandwidth across multiple locations to support faster speeds and services such as Wi-Fi.

Pain Point 4—Capital IT budget constraints: Solution monitoring and management offering allows internal IT organizations to focus on initiatives that support business outcomes, while benefiting from a utility pricing model which offers a predictable monthly fee.

Case study

Client: Automotive retail

The client is a Midwest-based corporation that provides tires, wheels, and auto services. The company has expanded from one location in 1976 to more than 103 locations today, each with 6 to 10 service bays. Customer has differentiated itself through customer service and making tire maintenance a user-friendly experience.

Challenge

The client had suffered from repeated network outages due to outdated legacy hardware, devices, and connections. Poor Wi-Fi coverage also led to multiple complaints and an overall poor customer experience. Additionally, the client had limited access to customer data analytics.



CBTS successfully implemented NaaS for the client and has delivered mission-critical network reliability and Wi-Fi performance.

CBTS solution

CBTS recommended Network as a Service to meet the customer's network and Wi-Fi needs and create seamless failover between multiple connections while also limiting the impact of technological obsolescence.

Key benefits include:

- Increased redundancy and seamless failover between multiple, diverse connections.
- Advanced equipment and technology using cutting-edge Auto VPN technology, which lowers costs and delivers a better experience.
- Integration of existing assets in client's data centers to provide cutting-edge technology to branch locations.
- Improved Wi-Fi networks are leveraged to deliver analytics that will optimize revenue opportunities at branch locations.
- Technology obsolescence is mitigated by building hardware refresh into the solution lifecycle.
- Network infrastructure is moved to the cloud.

Implementation and results

CBTS successfully implemented NaaS for the client and has delivered mission-critical network reliability and Wi-Fi performance. NaaS is centrally managed from a single dashboard, and our team remotely administers and supports the client's nationwide sites in coordination with the company's IT staff. To date, NaaS has reduced downtime at the client's branches by 10% and is generating significant cost savings of approximately 55%. NaaS allows the client to generate valuable financial analytics through consumer transactions, including the cost/benefit of opening and closing at certain times.

Food services

Overview

Customers don't just evaluate food; they evaluate the service. That's why savvy food service owners analyze their point of sale (POS) systems just as carefully as they evaluate their menus to ensure payment transactions, inventory management, and sales applications serve their mission and bottom line. Here's how NaaS can help:

Pain Point 1—PCI compliance issues: NaaS supports anti-malware, perimeter defense, intrusion prevention, and detection systems.

Pain Point 2—Improving customer experience: Enjoy dependable Wi-Fi and generate analytics that can create revenue opportunities.

Pain Point 3—Migrating to public cloud: NaaS supports SD-WAN to provide reliability and business computing power that will support future growth.

Pain Point 4—Deliver consistent experience across locations: NaaS is bandwidth-agnostic and provides a uniform experience at individual locations.

Pain Point 5—Security: SD-WAN maximizes the automatic provisioning of important network security components, such as firewalls, at a fraction of the expense compared to conventional bandwidth services.



Case study

Client: Food service retail

The client in this case is a Southern-based company with stores around the country. It offers specialty food for events, catering services, and sandwiches and sides to go or to eat inside its stores. Some of these stores are corporate-owned; others are owned by franchisees. The client generates revenue through the sale of its products for special dinners, and its lunch and catering businesses.

Challenge

This client increasingly relies on the Internet to handle orders across its 300 stores, but the company also takes orders over the phone. There are typically two to three customer support terminals, two to three phones, and a computer in the store manager's office. They offer Wi-Fi service to guests who eat lunch in their stores. The client wants to offer guests a uniform experience when they interact with the company over the phone, on the website, and in person.

In short, the client's stores require voice services, point of sale applications, online ordering applications, and guest Wi-Fi for in-store guests. The client contacted CBTS about testing a turnkey solution to efficiently add new stores to the company's network.

CBTS solution

NaaS provides a powerful turnkey solution for companies like this client that are leveraging a franchise model to scale the business. Key selling points include:

- We will install NaaS at any location in the country through its network of IT vendors.
- NaaS allows new locations to connect seamlessly with the parent company and creates a uniform experience for guests and employees.
- Ends technology obsolescence by building hardware refresh in the solution lifecycle.
- Moves network infrastructure to the cloud.

Implementation and results

CBTS successfully demonstrated the ability of NaaS to offer a uniform experience at the two franchise locations. Parent company will use NaaS to connect future franchise locations to their network.



NaaS provides a powerful turnkey solution for companies.



Manufacturing and construction

Overview

By the nature of the demanding work they do, manufacturing and construction companies require 24x7x365 uptime availability. Network and software failures threaten productivity and competitiveness and can create potentially devastating delays. NaaS provides reliable, managed connectivity between multiple locations; reduces/eliminates the need for expensive MPLS networks; and lowers CapEx costs.

Pain Point 1—Seasonal fluctuations: NaaS is a highly scalable approach that meets the IT requirements of both single- and multi-location businesses. This flexibility supports seasonal adjustments in manufacturing and construction.

Pain Point 2—Challenging physical environment: Manufacturing and construction projects place unique demands on networking equipment. CBTS will monitor the equipment and replace it as needed while the client concentrates on the core business.

Pain Point 3—Capital efficiency: NaaS is provided via a monthly fee that covers the equipment, network management services, and support along with an extended warranty program that ends technology obsolescence by building automatic and managed hardware upgrades into the solution lifecycle.

Pain Point 4—Connecting and managing multiple locations: NaaS and SD-WAN seamlessly connect multiple locations together while supplying advanced network analytics. The cloud managed services also provide cloud integration, dashboard-based network monitoring and management, a next-generation firewall for network security, Wi-Fi for agile manufacturing on the shop floor, and flexible routing and switching for increased bandwidth.

Case study

Client: Concrete manufacturer

This client is a full-service concrete contracting company with a unique service model designed to support career growth and keep workers close to home. The client builds strong teams that deliver exceptional customer service in their towns. They become part of the community, not only by helping create durable concrete structures, but also through their involvement.

Challenge

The client is a full-service concrete contracting company with 600 semi-mobile users working interdependently across 17 locations. The locations are interconnected but operate semi-autonomously.

The client had been using a traditional MPLS service to connect their 17 locations. The high cost, limited flexibility, and slow Internet speeds of its MPLS service resulted in the client contacting CBTS to find an alternative. Specifically, the client wanted a solution that would achieve the following objectives:

- Improve functionality and efficiency across its multiple locations.
- Provide significantly reduced costs.
- Reduce the number of deployments and issue resolution time.
- Increase Internet speeds, including more robust public and private Wi-Fi networks.

CBTS solution

CBTS begins every engagement with a review process to ensure the technical environment as well as the business needs are understood. This client is security conscious and uses Office 365, along with the enterprise mobility suite in the Microsoft cloud. The client also uses an ERP in the Amazon cloud, and both clouds are tied together with secure connections and central authentication and security systems.

- The client required a network solution that offers functionality, efficiency, value, and speed to support their multi-location structure. Each employee has a laptop, which enables them to work at different sites. To recognize the benefits of this structure, the customer's network must seamlessly facilitate the same functionality at every location.
- CBTS determined NaaS was the right solution for this client. NaaS delivers a fully managed network,

with cloud integration, security, switching, Wi-Fi, management, monitoring, and SD-WAN. Clients pay a single, predictable monthly price for equipment and support. And NaaS ends technology obsolescence by building hardware refresh into the solution lifecycle.

Implementation and results

The client switched to NaaS from CBTS and immediately started recognizing the benefits. The client said three things particularly stood out during the implementation process:

- The CBTS Advanced Technology Services Group worked with the client throughout the quoting, configuration, and implementation process to avoid surprises and minimize disruptions.
- During the configuration and installation process, the client gained access to the Meraki centralized cloud, giving it a deeper view and understanding of their entire network and devices.

- The client's 17 locations, gateways, and WAPs are now managed from one location in the cloud so repairs, monitoring, and delivery have gone smoothly and generated positive feedback.

Ultimately, the success of this installation must be measured against the client's challenges and needs as expressed in its initial meeting with CBTS. The early metrics are impressive and demonstrate the value SD-WAN and NaaS offer to multi-location businesses. With respect to this engagement, the customer reports that:

- Time to open a new store/location has been reduced by 66%.
- Network costs have been reduced by 87%.
- Internet speeds have been increased by 10x.
- Realized costs savings of operational labor up to 30%.

Education

Overview

Even during the chaos and trials of the COVID-19 era, education institutions are benefiting from the cost savings, flexible networking, high scalability, and CBTS support that comes with NaaS. Students expect to be able to connect easily to digital resources, regardless of their location or the time of day, to access online learning, including video and other rich-media content. This places the onus on schools to provide a high level of service without costly capital expenditures.

- **Pain Point 1—Continuous demands on network:** NaaS and SD-WAN offer superior performance when transmitting a wide variety of content, including HD video, software applications, voice, and data.
- **Pain Point 2—Connectivity among sites and HQ:** NaaS delivers a streamlined network solution that is turnkey across all locations, and scales as school systems grow or secure network accessibility needs evolve. Auto VPN allows for all LANs to be connected and protected with a “rinse and repeat” model.
- **Pain Point 3—Time demands on IT staff:** NaaS offloads management requirements to CBTS as partner for 24x7x365 expert engineering support.
- **Pain Point 4—Budget constraints:** Both NaaS and SD-WAN provide a consistent, predictable monthly fee. They empower administrators to transform budget stress into predictable expenses year over year.
- **Pain Point 5—Complex security demands:** NaaS supports integrated security measures that reflect unique user and access needs for students, teachers, and administrators.



Case study

Client: School system

School districts increasingly rely on technology to serve students, teachers, and administrators spread across multiple locations. The district in this case serves 7,600 students across nine schools and supports 250 administrators. The district's innovative approach to education; its investment in effective and caring teachers; and its strategic partnerships with organizations across the community are pushing student performance to the highest level in decades. The district depends on voice service to drive its collaborative model and provide students and staff with a safe environment.

Challenge

The client school district depended on voice service to drive collaboration among its 250 administrative users and community partners. Additionally, at a time when remote learning and hybrid classroom operations were becoming crucial, a managed networking solution was needed to improve remote productivity and make progress on classroom digitization.

District leadership was frustrated with their T-1 configured legacy phone system that no longer offered the necessary flexibility, functionality, and continuous connectivity to meet administrative and safety needs. Complicating matters was the fact that the district lacked the capital budget to purchase and manage a premises-based voice application.

Additional pain points included:

- The client's legacy voice system created an expensive, time-consuming rewiring process to add and drop users.
- The client needed "always-on" voice availability but had inconsistent call quality across sites.
- Client lacks capital budget to purchase and manage new voice infrastructure.

Implementation and results

- CBTS consulted with the client and recommended connected office voice (COV), a scalable, cloud-based fully managed communications solution that is securely hosted in geo-redundant data centers. Key benefits include:
- Flexible infrastructure that allows client to easily add/drop users.
- Lower total cost of ownership than premises-based system, and increased functionality.
- CBTS people and processes to provide installation and training, ensure a smooth transition, and provide ongoing support.
- COV provides the client with a scalable, long-term managed voice solution that delivers reliable connectivity across all locations, and features 24x7x365 CBTS support. As a result, the client enjoys improved call quality, a consistent user experience, and the ability to easily add/drop support staff users as needed. COV will also provide the client with continuous technology upgrades to support its innovative and collaborative environment.



Healthcare

Overview

The ability to collaborate across satellite offices, mobile technology, and wireless networks is mission-critical for healthcare providers. They require immediate access in real-time to images such as X-rays or CT scans which are exceptionally large files that drain bandwidth. When growing in scale, they are further challenged by exorbitant costs associated with an MPLS network delivering private bandwidth, thus creating a far greater drain on resources.

- **Pain Point 1—Collaboration is critical:** For healthcare, limitations on collaboration can determine a life-or-death outcome. SD-WAN empowers employees to function at their highest level of productivity. For example, they can take an X-ray locally, share with their network across the country in real-time, and gain a second opinion.
- **Pain Point 2—Expense of an MPLS Network:** SD-WAN can deliver a higher bandwidth transport with the same reliability of MPLS, but at a lower cost.
- **Pain Point 3—Patient safety and security:** SD-WAN has the capability to encrypt and keep patient data safe over what in the past was public networks. This is mission-critical for them. All the while, they are delivering world-class care to their patients.
- **Pain Point 4—Need for increased bandwidth:** SD-WAN has the ability to shape traffic and meet the growing need for increased bandwidth. In addition, this solution addresses the demand on a network to deliver large files site to site and the need to access applications that have moved to the Internet and to the cloud.

Case study

Client: Healthcare services

This client provides healthcare professionals and patients medical imaging services through a team of radiologists, technologists, IT and research specialists, educators, and support staff. The client operates 25 freestanding imaging centers in seven states, and provides teleradiology services to hundreds of physicians and medical centers across the United States.

Challenge

- The continuum of care and increasing focus on the customer experience demand that healthcare providers collaborate to support patients that see different specialists for different conditions. Ultimately, individual patient data must be accessible by every provider that supports a patient to facilitate positive health outcomes.
- This client plays a critical role in this ecosystem. Their radiologists and support staff work closely with physicians to provide rapid, expert interpretations of medical imaging examinations. The client therefore requires a secure, flexible network infrastructure that will allow it to send and receive patient data across its 25 imaging centers, and with hundreds of medical centers across the United States.

CBTS solution

- SD-WAN allows the client's branches to securely share patient data with each other, and with external medical providers, through an encrypted network. SD-WAN also supports the necessary bandwidth that increasing amounts of patient data require. This flexibility is critical because the client is not only sending patient data to its customers, but also receiving patient data to help inform an evaluation of a medical imaging examination.



For healthcare, uptime is mission-critical when dealing with patient welfare.

Implementation and results

- SD-WAN provides this client the infrastructure necessary to join the healthcare ecosystem through which multiple professionals across the country can collaborate on behalf of a single patient. The solution also supports network service chaining, which allows Internet backhaul for ease of security policy and deployment.
- All industries are becoming more reliant on Internet. For healthcare, uptime is mission-critical when dealing with patient welfare. SD-WAN provides the confidence and assurance that these mission-critical applications will be transport agnostic, and support LTE and failover to seamlessly deliver your most valuable information.

Finance

Overview

The financial world is moving quickly, especially when it comes to technology. Networks must be reliable and fast so that your key systems are always available to customers and employees. When your network is down, your financial services firm loses significant money with every minute.

- **Pain Point 1—Security:** CBTS partners with enterprise-class cybersecurity teams to create a network-based firewall and secure all traffic.
- **Pain Point 2—On-demand accessibility:** Banking clientele require always-on virtual access to their accounts at any time of day or night. SD-WAN will future-proof your IT infrastructure to flex as your customer needs grow.
- **Pain Point 3—Supporting innovation:** Managed SD-WAN allows financial organizations to focus their IT staffs on value-added applications for customers and offload network monitoring and management to CBTS.
- **Pain Point 4—Need to invest in customer-facing applications:** SD-WAN features predictable monthly fees and lifecycle hardware refreshes that alleviate pressure on IT budgets and resources, allowing organizations to increase investment in customer-facing applications.



Case study

Client: Financial organizations

CBTS works with multiple financial organizations, including Fortune 500 clients with affiliates spread across the country. CBTS offers best-in-breed engineering resources to support clients' need to future-proof their networks and build a secure infrastructure that will support a transition to a hybrid cloud model that provides the necessary flexibility to compete in this competitive space.

Challenge

- Financial institutions are embracing digital strategies to serve their mobile customer base and compete with financial technology startups, while simultaneously navigating their way through a maze of regulatory mandates and security demands. Customers increasingly put a premium on efficient, satisfying mobile banking experiences. In order to meet this demand, financial institutions must future-proof their IT infrastructure to deliver secure, cloud-based solutions that will support the ongoing shift from a brick-and-mortar business model to a flexible digital model.

CBTS solution

- SD-WAN is the right tool for financial organizations to meet their needs for bandwidth, support applications in a hybrid cloud environment, and partner with enterprise-class cybersecurity partners to create a shield around the network regardless of location type, connectivity type, or connectivity purpose. SD-WAN will allow financial organizations to build a stable foundation to grow their digital footprint, meet their customers' evolving expectations, and facilitate mission-critical business objectives.



Customers increasingly put a premium on efficient, satisfying mobile banking experiences.

Implementation and results

- SD-WAN supports network service chaining, and allows financial organizations to backhaul traffic to a single, secure location. CBTS partners with enterprise class organizations, including Palo Alto Networks, to create a network-based firewall and secure all traffic, whether it's from an employee working at home, a customer logging in wirelessly at a branch location, or members of the corporate team working from an office.
- SD-WAN also provides the necessary bandwidth to build a future-proof infrastructure that will support the organization's transition to a hybrid cloud model that helps them deliver innovative cloud managed services to a mobile, time-starved customer base.



Government

Overview

Local and state governments face constant budgetary pressure to deliver communications and collaboration technology while reducing their capital investments and IT headcount. This is particularly challenging and expensive during an unprecedented public health crisis that stretches public resources to their limits. NaaS allows governments to leave the networking business and still provide cutting edge innovation tools for employees.

- **Pain Point 1—Capital constraints:** Utility pricing model builds in hardware and software security refreshes and licensing agreements, while users still receive top-of-the line security, monitoring, and management.
- **Pain Point 2—Multi-device environment:** The NaaS single pane of glass dashboard allows for management control of connected devices and bandwidth allocation to reduce investment in expensive, MPLS networks.
- **Pain Point 3—Complex, multi-site environment:** NaaS delivers a streamlined network solution that is turnkey across all locations.
- **Pain Point 4—Limited IT resources:** NaaS offloads management requirements to CBTS as partner for 24x7x365 expert engineering support.

Case study

Client: Local municipality

This client has approximately 120 employees providing services to more than 12,000 residents. The client must connect multiple locations, including its safety center, municipal building, city hall, and fire department. The client also has a shared services arrangement with two other municipalities. The client has an existing relationship with CBTS, and has already migrated their servers to a virtual data center.

Challenge

- The client needed a hardware refresh and faced \$62,000 of equipment costs, and \$20,000 in installation costs. The client's monthly expenses included \$2,850 for a PBX solution with NOC management and monitoring, and \$5,500 for CBES and local services. The client previously spent about \$250,000 for gear, including switches and phones, some of which was nearing end-of-life status.
- The client needed to move to an OpEx model—as opposed to a CapEx model—and wanted to expand its use of the as-a-service model. The client asked for a solution that would eliminate up-front costs for equipment, provide monitoring and management, and feature built-in hardware refreshes. The client also needed an IT partner that could coordinate with its third-party IT partner that provides desktop support. The client's IT lead is also the assistant fire chief, which makes outside IT support a critical need.

CBTS solution

- CBTS recommended the client adopt NaaS to continue enjoying the benefits of a customized solution that is monitored and managed, and eliminate future capital investments for expensive network equipment. NaaS from CBTS:
- Includes 24x7x365 expert CBTS engineering support.
 - Supports the client's existing virtual data center servers.
 - Provides necessary infrastructure for additional cloud applications including the CBTS Hosted UC solution, which the client adopted in conjunction with deploying NaaS.
 - Provides the client and its third-party IT partner visibility into the servers all the way down to individual phones.
 - Features a predictable monthly cost that builds hardware refreshes in the solution lifecycle.

Implementation and results

- NaaS reduced the client's monthly networking expenditures by approximately \$12,000 a year, from \$9,500 a month to \$8,500 a month. Hardware refreshes are part of the solution, which eliminates uncertainty around future equipment-related capital expenditures. CBTS is also working closely with the client's third-party IT partner to give the client an end-to-end networking solution.



NaaS reduced the client's monthly networking expenditures by approximately \$12,000 a year.

About CBTS

CBTS is a wholly owned subsidiary of Cincinnati Bell (NYSE:CBB) that serves enterprise and midmarket clients in all industries across the United States and Canada. From Unified Communications to Cloud Services and beyond, CBTS combines deep technical expertise with a full suite of flexible technology solutions to drive business outcomes, improve operational efficiency, mitigate risk, and reduce costs for its clients.



For more information, please visit www.cbts.com.