

Cisco Cloud Connector Serves Patients in Crisis



Healthcare provider Cherokee relies on Cisco and SecureLogix to track and analyze patient calls.

EXECUTIVE SUMMARY

Customer Name: Cherokee Health Systems



Industry: Healthcare

Size: 640 employees include healthcare providers and administrative support staff

Location: Headquartered in Knoxville; more than 20 locations throughout Eastern Tennessee

BUSINESS CHALLENGE

- Need to identify, track and respond to dropped or abandoned calls for patient follow-up
- Need to protect against harassing calls that consume employee time and reduce morale
- Need to track and analyze call volume and call pattern details at each location to improve call response times

NETWORK SOLUTION

- SecureLogix® ETM® system UTA as a Cisco Cloud Connector
- Cisco® ISR Generation 2 routers with Cisco UCS® E-Series server and Cisco Unified Border Element (CUBE)

BUSINESS BENEFITS

- Cost-effective incoming and internal call tracking and reporting
- Superior protection against harassing calls, toll-fraud and telephony denial of service (TDOS) attacks across the entire network
- Easier management and faster voice network problem resolution
- Improved patient care

Business Challenge

Cherokee Health Systems practices an integrated team approach to patient care. It treats body and mind, both onsite and through telemedicine, in the areas of primary care, dentistry, behavioral health, and prevention programs and services. The health provider accepts “all comers” - patients on private insurance plans, Medicare, Medicaid, or patients with no coverage. No one is turned away.

An average of 15,000 to 20,000 inbound patient calls funnel through its IP telephony center in Knoxville every week and are distributed to more than 20 clinics across Eastern Tennessee. “As a major mental health provider for the region, one of our challenges has been how to respond to patient calls when a caller hangs up immediately after indicating he or she is in crisis, or hangs up during a transfer from the front office,” says Brent Barnard, telecommunications administrator for Cherokee Health Systems. There was no quick or easy way to track down these callers other than exporting and searching through hundreds of thousands of rows in a database report.

Barnard says, “When we looked for a solution, the vendors we talked to didn’t really listen to what we needed. They kept pushing products that centered on call cost recouping, but we wanted to be able to identify and capture calls and analyze call data both in real time and in aggregate for trend analysis.”

Network Solution

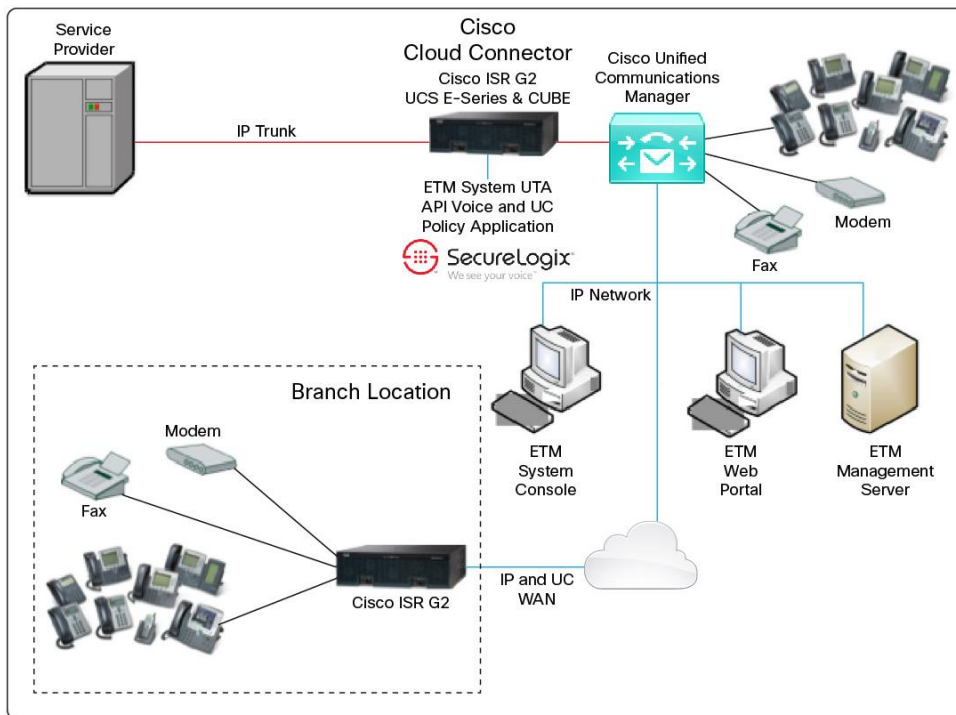
A long-time Cisco® data network customer, Barnard says Cherokee Health Systems joined the Cisco voice world in 2010 after repeated disappointments with another voice over IP (VoIP) vendor. In February 2011, his Cisco vendor recommended and brought in SecureLogix® to present its ETM® (Enterprise Telephony Management) system. The SecureLogix ETM Unified Trunking Application (UTA) is the Cisco Cloud Connector. It runs on the Cisco Unified Computing System™ (UCS®) E-Series server with the Cisco Unified Border Element on the Cisco Integrated Service Router Generation 2 (ISR G2) router.

“We immediately knew this was the solution we needed because of its ability to actively report and alert and its strong call security features,” says Barnard.

SecureLogix is the first technology development partner to integrate its application with the Cisco network API to Cisco Unified Communications (UC) services. The API gives SecureLogix developers easy access to call signaling and media information at the network edge. SecureLogix uses the information to track calls as well as detect and thwart malicious activities such as war dialing, toll fraud, identity-theft scams, unauthorized network access and service use, and telephony denial of service (TDoS) attacks.

As shown in Figure 1, the Cherokee Health Systems telephony network connects to a wide area telephony cloud. The centralized Cisco Unified Communications Manager is co-located with SecureLogix ETM security and management applications. This scalable private cloud configuration easily handles voice policy, security and management for the two telephony center locations. The Cloud Connector supports both time division multiplexing (TDM) and Session Initiation Protocol (SIP) trunks.

Figure 1: Cherokee Health Systems Telephony Network



Business Results

The Cisco Cloud Connector offers Barnard’s staff a new level of visibility and control over calls, significantly improving healthcare support staff productivity and the call-in experience for Cherokee Health Systems patients. It delivers:

- **Cost-effective call tracking and reporting.** “With Cisco Cloud Connector based on the SecureLogix-Cisco offering, we now have the solution we’ve wanted for years. We can view calls in real time and quickly retrieve data for follow-up by a crisis worker or other emergency personnel,” says Barnard.

He adds that they also now have a very clear picture of call volume for each office throughout the day. The easy-to-read reports showed where the Cherokee Health Systems phone system was dropping calls, which led directly to staffing changes and the installation of Cisco contact centers to better handle overflow in busy offices.

- **Superior security.** Barnard notes that Cherokee Health Systems has had problems with harassing calls in the past. The calls could upset staff and if they continued, involved multiple staff members to address the situation. The Cisco Cloud Connector eliminates harassing call problems by giving IT the ability to automatically deny or redirect numbers to a voicemail box based on caller ID or call behavior. Because Cherokee Health Systems has also been the victim of attempted toll fraud, Barnard also appreciates the solution's ability to monitor and detect suspicious calling patterns and deny access to key resources when those calls exceed preset thresholds.
- **Ease of management.** Barnard says, "The ease of management is incredible. I used to have to manage 20 different systems, now I have one trunk, one router and one phone system." Making some changes previously meant driving to 20 locations. Today he can implement a single policy change that will apply across the entire voice network from a single cloud-based program that he can access from home.
- **Superior voice service availability.** The Cisco UCS server platform helps staff reduce and in most cases eliminate voice service downtime. "With our previous vendor's product there wasn't much we could do besides reset the systems as a troubleshooting technique, a very time-consuming and service-affecting process. With Cisco UCS-E, our voice environment is virtualized; we have redundancy and failover options that provide us with much greater uptime and peace of mind," he explains.
- **Improved patient care.** Previously, there was always a possibility that patients would hear non-stop ringing or busy signals when individual phone systems or front office staff were overwhelmed with calls. Today, the Cisco Cloud Connector alerts and reports on excessively busy lines and unanswered calls, which trigger adjustments to staffing levels to accommodate call volume and provide data to scale the voice network. This capability enables the front office staff to answer most calls within two rings, and if patients are put on a brief hold, they hear on-hold music or in some cases, a voice message reassuring them they will be quickly taken care of.

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— Brent Barnard, Telecommunications Administrator, Cherokee Health Systems

Barnard sees his Cherokee Health Systems-Cisco-SecureLogix partnership lasting for the long term. "We believe that Cisco is on top of both the IP data and voice worlds because of the effort the company puts into R&D," he says. "And, SecureLogix has delivered a product that has exceeded our needs. Its technical support has been great."

PRODUCT LIST

- Cisco 2900 and 3900 ISR
- Cisco UCS E-Series server
- Cisco Unified Border Element (CUBE)
- SecureLogix ETM System and UTA

For More Information

- To learn more about Cisco Cloud Connector, go to: <http://www.cisco.com/go/cloudconnectors>
- To learn more about SecureLogix ETM-UTA products, go to: <https://marketplace.cisco.com/catalog/products/3761>
- To learn more about Cisco ISR G2 routers go to: <http://www.cisco.com/go/isrg2>
- To learn more about Cisco UCS E-Series servers go to: <http://www.cisco.com/go/ucse>
- To learn more about Cisco Unified Border Element (CUBE), go to: <http://www.cisco.com/go/cube>

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