



# Visio Health Instantly Creates Perimeter-Secured Networks for Diagnostic Telemedicine Carts

Cradlepoint NetCloud Enables Cloud Management, SD-Perimeter & SD-WAN for Healthcare IoT

## SUMMARY

Visio Health's clinical-grade diagnostic telemedicine carts are a prime example of how IoT is shaping healthcare. This type of leading-edge technology requires an equally next-generation networking solution that ensures reliable connectivity and security, and efficient management from anywhere.

With Cradlepoint's all-in-one, LTE-enabled IoT solution – delivered through the NetCloud platform – it takes Visio just minutes to create a perimeter-secured overlay network over the Internet, with optimized WAN path selection and single-pane-of-glass management.

### SOLUTION:

COR SERIES ROUTERS,  
NETCLOUD MANAGER,  
NETCLOUD PERIMETER

### APPLICATION:

TELEMEDICINE, SD-PERIMETER,  
SD-WAN, CLOUD MANAGEMENT

### MARKET:

HEALTHCARE – IoT

## CUSTOMER PROFILE

With headquarters in Omaha, Nebraska, Visio Health specializes in telemedicine operations management. The company helps healthcare providers identify telemedicine applications, select technology, define workflows, acquire equipment and software, incorporate staff and processes, and operate programs.

Visio Health partners with its clients to incorporate telemedicine capabilities into their mainline delivery of care. Customers include skilled nursing facilities, occupational health clinics, corrections facilities, hospitals, and others.

## BUSINESS NEEDS

One of Visio's most popular services is diagnostic telemedicine carts, which are medical workstations on wheels. Each of these battery-powered carts includes a PC, at least one monitor, and specialized telemedicine software. The software communicates with FDA-classified medical devices such as stethoscopes, otoscopes, vital signs monitors, ultrasound devices, blood glucose monitors, and ECG machines. Visio also features a smaller version of the cart, contained within a portable case.

Visio deploys its telemedicine carts throughout the U.S., giving physicians real-time medical information via two-way conferencing. For instance, an off-site specialist can remotely look through an ear or nose device as if he or she were actually in the room with the patient.

Visio uses its back-end network management software, proprietary scripts, and suites of diagnostic tools to automate the monitoring of IoT devices. When a problem arises, an internal service desk ticket is immediately sent to the IT team – often before the end user even knows something is wrong.

For healthcare practitioners, the key to telemedicine is the ability to confidently diagnose just as if they were in the room – and that's only possible with reliable, high-quality audio and video. It's especially difficult in rural areas.



*“Until now, there hasn’t been a good solution for this type of telemedicine technology. It would have required extensive network architecture and would have been incredibly expensive to construct,” said Anthony Stanley, VP of operations and technology at Visio Health.*

Additionally, with many rural healthcare locations lacking on-site IT specialists, it was essential that Visio find a connectivity solution that could be deployed easily and managed remotely.

**“Cradlepoint is doing for Edge Networking what VMWare did for the data center.”**

– Anthony Stanley, VP of operations, Visio Health

## SOLUTION

To meet its diverse set of needs, Visio selected a comprehensive solution: Cradlepoint’s wired and wireless routers and the NetCloud platform, with Software-Defined Perimeter (SD-Perimeter) and Software-Defined WAN (SD-WAN) functionality.

Visio quickly and simply adds perimeter-secured overlay networks to customers’ telemedicine cart installations – and remotely monitors and manages everything through a single pane of glass.

## BENEFITS

### CONSTANT CONNECTIVITY & INTELLIGENT TRAFFIC STEERING

With cloud-managed routers on each cart, SD-WAN features allow Visio to set policies that

intelligently and automatically steer traffic between Ethernet, 4G LTE, and WiFi-as-WAN. This offers high availability and improved data speeds.

Traditionally, each WAN source and device would require complex, laborious configurations. Today, NetCloud does all of that work automatically.

*“Our Cradlepoint solution ensures we always have the best connection, in terms of quality, speed and price – and it all happens in an automated fashion,” Stanley said.*

### CREATE PERIMETER-SECURED OVERLAY NETWORKS IN MINUTES

Through Cradlepoint’s NetCloud Perimeter service, which leverages SD-Perimeter technology, Visio easily and almost instantly brings all of its carts into a single IP space, rendering static IPs unnecessary. Even hosts without publicly addressable IPs can privately and securely share data.



*“One engineer actually coined the term ‘Cart Area Network,’ because each device lives beyond the router with its own referenceable, persistent IP address – and all delivered through NetCloud,” Stanley said.*

NetCloud Perimeter provides end-to-end encryption, certificate-based authentication, and machine authentication across a fully cloaked IP address space. It’s a completely private network over the public Internet.

### SINGLE-PANE-OF-GLASS MANAGEMENT

NetCloud collapses Visio’s multi-faceted network infrastructure pieces – including perimeter-secured overlay networks, SD-WAN traffic steering, configurations, firmware updates, firewall transversal, encryption, and more – into one cloud management platform.

*“With Cradlepoint, we’ve been able to condense all of our network admin duties into a single pane of glass,” Stanley said.*

### ABILITY TO IMPROVE HIPAA & PCI COMPLIANCE

Failure to protect patient and credit card data can be incredibly harmful to those involved, as well as disastrous for any healthcare organization’s reputation.

Compliance with HIPAA and PCI guidelines requires rigorous vigilance beyond what any solution can provide. However, a cloud-managed, software-defined approach with end-to-end encryption through Cradlepoint allows Visio Health to give its customers a flexible system that’s ready-made for a wide variety of security-minded best practices.

Learn more: [cradlepoint.com/healthcare](https://cradlepoint.com/healthcare)