



## CASE STUDY

# A Holistic Network Architecture for a Pediatric Healthcare Provider



## The challenge: Overcoming Network Scalability and Reliability Issues in Pediatric Healthcare

A leading national pediatric healthcare provider was facing significant difficulties in maintaining and scaling their network, which had grown organically over the years. The network's organic growth led to a complex and fragmented infrastructure, making it challenging to implement new technologies and support advanced clinical applications. One of the most pressing issues was the inability to effectively support multicast video, which is crucial for various clinical applications such as telemedicine, remote consultations, and real-time video streaming for patient monitoring.

The existing network infrastructure lacked the necessary scalability and reliability to handle the increasing demands of modern healthcare applications. As a result, the provider experienced frequent network outages, slow performance, and difficulties in troubleshooting and isolating network problems. These issues not only impacted the efficiency of clinical operations but also hindered the provider's ability to deliver high-quality patient care.

To address these challenges, the healthcare provider needed a comprehensive solution that would simplify their network architecture, enhance scalability, and ensure robust performance. The goal was to create a stable and resilient network infrastructure capable of supporting multicast video and other advanced clinical applications, ultimately improving service delivery for patients and clinicians.

## The solution: Simplifying Network Architecture for Enhanced Scalability and Performance

C1 developed a holistic network architecture, presenting the healthcare provider with a comprehensive roadmap for implementing their next-generation network. This new architecture was designed to simplify the overall network while ensuring stability, resilience, and scalability. By conducting thorough site assessments and understanding the unique requirements of each location, C1 was able to create a tailored solution that addressed the specific challenges faced by the healthcare provider.

The new network architecture streamlined the existing infrastructure, reducing complexity and enhancing performance. This approach allowed for seamless integration of new technologies, including multicast video, which is crucial for clinical applications such as telemedicine and real-time patient monitoring. The robust and scalable network infrastructure ensured that the healthcare provider could support advanced clinical applications without experiencing network outages or performance issues. This solution not only improved the efficiency of clinical operations but also enhanced the quality of patient care by providing reliable and high-performance network connectivity.



## **The result: Strengthened Network Foundation and Enhanced Service Delivery in Pediatric Healthcare**

The healthcare provider's network is now significantly better equipped to scale and adapt to the evolving needs of their clients. With the newly implemented network architecture, administrators can troubleshoot and isolate network problems in a more prescriptive manner, ensuring better service delivery for both patients and clinicians. This enhanced capability has led to a noticeable improvement in the efficiency and reliability of clinical operations.

Overall, the healthcare provider's network now boasts a stronger foundation, capable of effectively supporting new technologies and applications. The robust and scalable infrastructure allows for seamless integration of advanced clinical applications, including multicast video for telemedicine and real-time patient monitoring. This transformation has not only addressed the immediate challenges but also positioned the healthcare provider for future technological advancements, ensuring they remain competitive and patient-centric in the long term.

The improved network performance has resulted in higher levels of satisfaction among patients and clinicians, as they experience fewer disruptions and more reliable connectivity. This holistic approach to network enhancement has ultimately contributed to better patient care and more efficient clinical workflows, reinforcing the healthcare provider's commitment to delivering high-quality services.

### **Transform Your Network with Cutting-Edge Solutions**

Is your network struggling to keep up with the demands of modern healthcare? Discover how our holistic network architecture can simplify your infrastructure, enhance scalability, and support advanced clinical applications like multicast video. Our tailored solutions ensure robust performance and seamless integration, empowering you to deliver high-quality patient care.

Schedule a consultation: <https://www.onec1.com/contact-us>



C1 designs and delivers technology solutions built for outcomes. We focus on communications, networking, and cybersecurity—pairing leading partner platforms with our advisory, professional, and managed services to make modernization practical, secure, and valuable from day one. Where others talk about transformation, we make it real—faster, simpler, and more resilient. Learn more at [onec1.com](https://www.onec1.com).