COMMSCOPE®

imVision® addresses needs for remote network management due to pandemic

The COVID-19 pandemic has been tough on everyone, to be sure. Healthcare professionals, grocery store workers and other "essential" employees have borne the brunt of the emotional stress and physical risk. Less publicized but no less important is the work of data center personnel, without whom the explosion of telecommuting, shared data and social media traffic would quickly overwhelm the networks upon which we rely to stay connected.

Data centers are having to walk a thin line between meeting the needs of their networks and maintaining a safe working environment for their employees. Network managers have responded by reducing the size of their on-site work teams and staggering shifts to provide ample coverage while complying with social distancing requirements. They are also taking advantage of new capabilities in remote and automated infrastructure management solutions that enable personnel to monitor and manage the physical layer infrastructure with a minimum amount of physical presence.

Data centers turn to more remote management

In recent years, remote network management solutions have proven increasingly valuable, enabling tech response teams to work more efficiently and faster. In 2020, these systems quickly became a critical must-have for safe and responsive data center management. As early as April 2020, Data Center Knowledge reported:

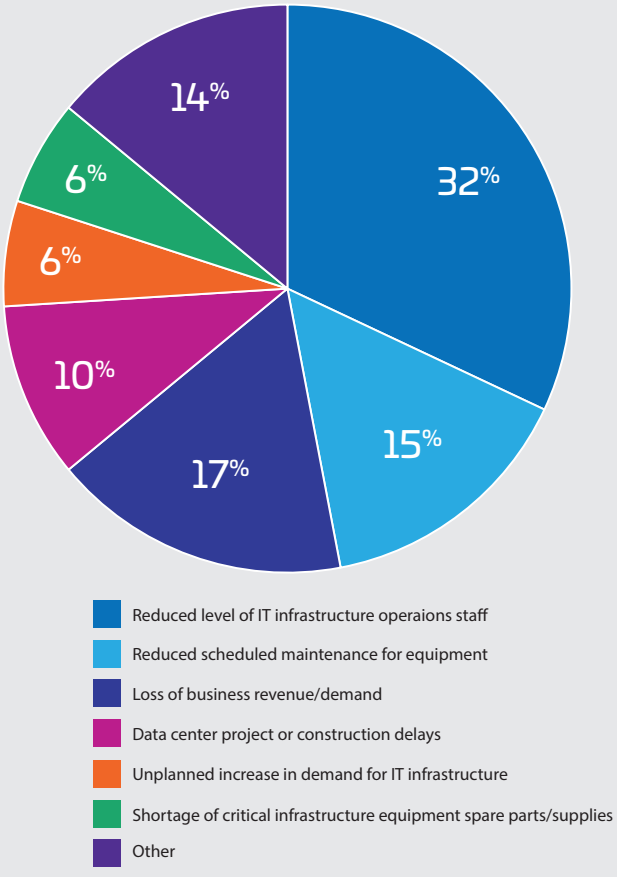
"Colocation providers are using online data center infrastructure management customer portals for remote monitoring and IT support ticketing... Colocation providers are also promoting their remote-hands services. These services cover things like IT equipment moves and additions."

Attractive capabilities and tools

The need for remote monitoring solutions has led to a spike in demand for automated infrastructure management (AIM) systems. Today's AIM-based solutions feature various capabilities that make them particularly well suited for the current COVID-constrained data center environment.

"Online streaming giant, Netflix, gained 15.77 million new paid subscribers globally between February and April, well above their predicted 7 million. Workplace communication tools such as Zoom, WebEx and Microsoft Teams are now more important than ever, with Teams seeing a drastic increase from 20 million to 75 million active daily users from November 2019 to April 2020."

-Data Center Dynamics, June 29, 2020



If you had to choose just one, what is the #1 risk that COVID-19 poses to your organization's critical IT infrastructure operations over the next 90 days? (Choose one)

Source: Uptime Institute

Automated infrastructure management

AIM systems like CommScope's imVision® are designed for remote management and monitoring of all infrastructure cabling, connectivity and performance. For example, the ability to support electronic work orders allows network administrators and technicians to send connectivity-related work orders directly to the system controllers, which then display on-screen instructions. Port LEDs on the intelligent patch panels show the person working on-site exactly which ports need to be connected or disconnected and automatically records a successful completion of a work order. This level of automation reduces health risks by lowering the time needed to implement work orders and the number of times the equipment and cabling need to be touched by ensuring accurate implementation of the changes.

Use of imVision can also minimize and even eliminate a number of site trips by non-local IT technicians to implement work orders. By providing clear and easy-to-follow instructions, both visually and on-screen, the system could support implementation of connectivity work orders by mostly anyone. Practically any on-site individual—from engineers to security personnel—can execute the required tasks. Audible and visual confirmation alerts the remote and on-site individuals involved with the change as to whether the task has been completed successfully or not. imVision provides real-time visibility. If the task wasn't done according to instructions, the requester will be notified in real time and can contact the on-site individual to work through any difficulties.

Figure 1: imVision provides on-screen instructions and visual guidance on port connectivity to ensure accurate changes.

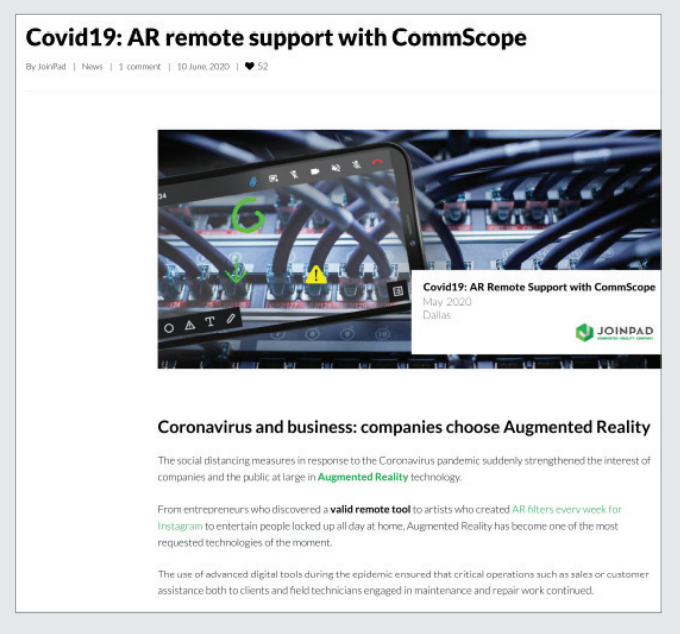
Use of augmented reality for remote support

Another key functionality available to imVision customers is a collaboration with JoinPad using JoinPad's Smart Assistance tool. Smart Assistance is an enterprise augmented reality (AR) solution that enables remote engineers/experts and on-site personnel to work through questions and issues visually and in real time, using online whiteboard capabilities. For example, during the coronavirus lockdown, CommScope used JoinPad to enable their technical support personnel to connect with customers thousands of miles away.

Figure 2. Smart Assistance uses shared visuals and real-time annotations, helping remote and on-site personnel work through connectivity issues.

"For one customer, we used the tool to aid in the initial configuration and turn-up of their imVision system," said Michael German, technical director at CommScope. In another example, configuring the customer's hardware components required a specific knowledge and skill set. "Due to COVID, we couldn't put our people on-site, so we used our AR capabilities to remotely guide less knowledgeable personnel through the hardware configuration and turn-up," German explained.

Remote and on-site techs can share a visual representation of the hardware and cabling and then work through changes using virtual texts and symbols such as arrows, warning signs and circles. The enhanced communication eliminates any confusion and ambiguity that may result from a voice-only call. It also significantly reduces travel costs and accelerates moves, adds and changes.



To read more about CommScope's use of the Smart Assistance tool from JoinPad, click the thumbnail

Inherent social distancing

Another imVision-based capability that is proving especially valuable during the pandemic is the system's rule requiring connectivity changes to be completed one at a time within a patching zone. This rule could be implemented by having only one person completing these tasks, which would naturally enforce social distancing. Reliance on electronic work orders ensures high-level efficiency and accuracy when performing connectivity changes by a single technician.

Remote network management, the new normal

Once the world has the recent pandemic under control, it is expected that business (and the way we go about conducting it) will have changed permanently. A recent Gartner poll showed that 48 percent of employees will likely work remotely at least part of the time after COVID-19 versus 30 percent before. A separate Gartner study indicated that 55 percent of organizational redesigns were focused on streamlining roles, supply chains and workflows. While these efforts increase efficiency, the research authors concluded, they also create fragilities, as systems have no flexibility to respond to disruptions.

The implication is that data centers' reliance on robust remote network management systems will not, in all likelihood, revert to pre-COVID levels. If anything, the 2020 global pandemic has emphasized the need to accelerate investment in infrastructure management and monitoring systems that provide data center managers the efficiency and flexibility to pivot without pause in response to the next great disruption.

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WP-115263.1-EN (02/21)