

SMART BUILDING CONNECTIVITY

Realizing a more reliable building network

The role of the enterprise LAN continues to evolve. In addition to IT, it supports virtually every critical workplace function—wireless communications, security and access control, facility management, intelligent lighting and a growing list of internet of things (IoT) sensors and devices. Within this expanded context, the issues of network reliability and business continuity take on increased importance.

We asked Jason Reasor, head of the Building Strategy and Technology Group from CommScope, how network managers can build more reliability into their commercial networks.



Q There have been a lot exciting developments for enterprise LAN applications: IoT is ramping up and PoE and powered-fiber standards are evolving. How does this affect the cabling infrastructure?

A Any change can be disruptive, and, when you're talking about disruption in the enterprise LAN, you immediately worry about the increased risk of unplanned outages. Enterprise networks rarely make the news—unless it's bad news—and an unplanned outage is about as bad as it gets. Last year, for example, a tech's typo at one of the world's largest cloud services providers took several key servers offline for four hours. U.S. financial-service companies lost an estimated \$160 million in revenue. But you also have to remember that network reliability is about more than avoiding a major issue in the core network.

Q What do you mean?

A In-building wireless communication, connections with IoT devices, support for building management systems...they all depend on a reliable network infrastructure. That, in turn, affects business continuity. Should a connectivity issue affect any of these systems, the impact could be as costly as an unplanned network outage.

Q Are there steps that network managers can take to minimize outages and maximize productivity across the enterprise?

A Yes. It requires expanding the focus beyond redundancy and automated infrastructure management. Don't misunderstand me: Designing full redundancy into the network and deploying AIM-based intelligence to monitor and manage it are absolutely critical. But, in today's commercial network environment, that's just the ante. We have to look at every part of the network—from the backbone to the edge—and ask, "How can we make it more resilient?"



Q Specifically, what should network managers be considering?

A Several things. For example, how do you increase reliability in your low-voltage PoE network while supporting the growing diversity of sensors, controllers and devices? Can your in-building wireless support the spectrum of transmission technologies—Wi-Fi, LTE/5G? I'd also highly recommend taking a good look at your high-speed migration strategy to ensure a seamless transition to faster backbone fiber speeds without having to rip and replace. These are just some of the areas to consider, but you get the idea. You have to look at network reliability in all its forms.

Q Obviously, every commercial enterprise network is going to require a unique set of solutions, but are there general best practices that you'd recommend?


A Absolutely. The first thing is unifying your cabling on a single, converged platform that can support all the connected systems and provides plenty of headroom for the future. That means standardizing on Category 6A copper cabling. This will simplify your network design while ensuring support for the faster speeds and increased bandwidths of emerging technologies. Because Category 6A copper is the preferred medium for power-over-Ethernet, you can seamlessly extend the network to the edge—using enhanced PoE to support increasing IoT connectivity and devices requiring higher power.

Q Earlier, you mentioned automated infrastructure management. I assume that needs to be part of the solution as well.

A Without question. With the complexity in today's networks, if you don't have visibility into the physical layer, you're really putting network reliability and business continuity at risk. A good AIM system like CommScope's imVision™ gives you eyes and ears across the physical layer. The intelligent platform is constantly monitoring the physical layer network—mapping and documenting all changes in connectivity. As soon as it detects an unscheduled new connection or potentially disruptive circumstance, you'll know.

Q And, when it comes to the need for greater network agility, how would you address that?

A That's a great question. Change in any building network is a given. Start with the basics: a well-planned structured cabling topology that lets you scale on demand without having to touch any of your trunk cabling. Next, consider using modular components that can be switched out quickly and easily to support new technologies and faster speeds in the backbone.



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You know what you need. We know what's next. Together we can realize your potential.

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