As more buildings migrate to a smart infrastructure, networks are evolving too. With increased data demands and the need for applications at the edge, it’s time to think differently about how networks are built.

Corning SD-LAN, combined with fiber’s superior reach and unlimited bandwidth, enables networks to be more adaptable, scalable, and programmable. Whether it’s an office building, hotel, or school, this intelligent solution makes it simple for administrators to manage traffic and customize upgrades from a central location—and conquer ever-increasing connectivity demands.

- A fiber and power deep architecture overcomes distance and bandwidth limitations to ensure future technology readiness.
- Centralized network control reduces complexity, simplifying network configuration and management.
- Technology-neutral platform supports active Ethernet or passive optical LAN.
- Applications that SD-LAN can support include audiovisual, Wi-Fi, security systems, in-building cellular, and any other IP-based device your network requires.

Learn more about future-ready networking with Corning SD-LAN at [corning.com/fiberdeep](http://corning.com/fiberdeep)
What is Software-Defined LAN?

SD-LAN decouples the network software from the hardware to provide better network control and customization. Because it’s self-organizing and centrally managed, it’s more adaptable and simpler to operate, integrate, and scale. An SD-LAN system uses a virtual host server to house the network control software, a software-defined data plane that is typically used as a network switch in a top-of-rack configuration, a software-defined optical line terminal (SDOLT) to multiplex the optical data streams and software-defined access nodes (SDAN) that provide device connectivity and control at the edge of the network. An SDAN available in multiple port counts and configurations can be installed in the ceiling, on a wall, or at a desk to provide connectivity where you need it. Remote powering provided through composite fiber and copper cables enables Power over Ethernet (PoE), making device placement and configuration a snap.

Key Components of the Corning SD-LAN Solution

Software-Defined Data Plane (SDDP)

The software-defined data plane (SDDP) meets the high-performance, availability, and network-scaling requirements of enterprise grade networks. The SDDP provides full line-rate switching at layer 2 or layer 3 across 48 x 10 GbE ports and 6 x 40 GbE uplinks. The switch can be deployed as a top-of-rack switch forming a nonblocking data fabric. It features redundant, hot-swappable, load-sharing AC power input; fan tray with n+1 redundant fans; and port-to-power or power-to-port airflow options.

Composite Cabling

Corning ActiFi® composite cables provide a time- and cost-saving solution for installations requiring remotely powered ONT equipment. By integrating copper and fiber into one cable, ActiFi cables eliminate the need to install separate power and fiber cables. This saves installation time, labor costs, and duct or tray space. The maximum cable length is approximately 2,000 feet from a centralized location. This compact, versatile design is available with an interlocking armor option for additional protection where conduit may not be feasible.

Software-Defined Access Node (SDAN)

Corning’s software-defined access nodes (SDANs) sit close to the network edge and the devices they power. Composite cable runs to the SDAN and a short copper jumper connects to each end device, such as a Wi-Fi access point or security camera. SDANs can support multiple PoE types, are available with one to eight ports, and can support both GPON and Active Ethernet.

Orchestration Platform

This comprehensive, highly scalable software suite gives network administrators a full view of their network and all devices that are connected to it. Simple end-to-end installation, provisioning, and orchestration for the entire network can take place with the click of a mouse. Quickly add devices, diagnose network issues, and explore end device traffic.