



CORNING

# Data Center Cellular Service

## Simple Installation. Quick Deployment. Total Service Coverage.

A robust cellular maintenance network is a key addition to any data center, so vital calls are not missed and engineers can immediately contact people and online support resources without limitations. However, reliable wireless coverage in data centers is often severely limited by the materials used in construction and the rows of loaded equipment racks inside. Our solution to accommodating the critical connectivity needs of employees and contractors is the Corning SpiderCloud® Wireless enterprise radio access network (E-RAN) – a robust and secure in-building system that installs over LAN infrastructure and can be deployed in as little as 90 days.

Learn more about the Corning SpiderCloud solution at [corning.com/smallcell](http://corning.com/smallcell).

## FAQ

### What is an enterprise radio access network (E-RAN)?

The E-RAN system is made up of one services node that manages the radio nodes (access points) that are attached to it throughout the data center. All radio nodes are powered by Ethernet, which makes them easy and quick to install.

### How does the E-RAN system work?



PoE+ powered radio nodes install on ceiling or overhead cable trays



Radio nodes connect to services node over Ethernet LAN

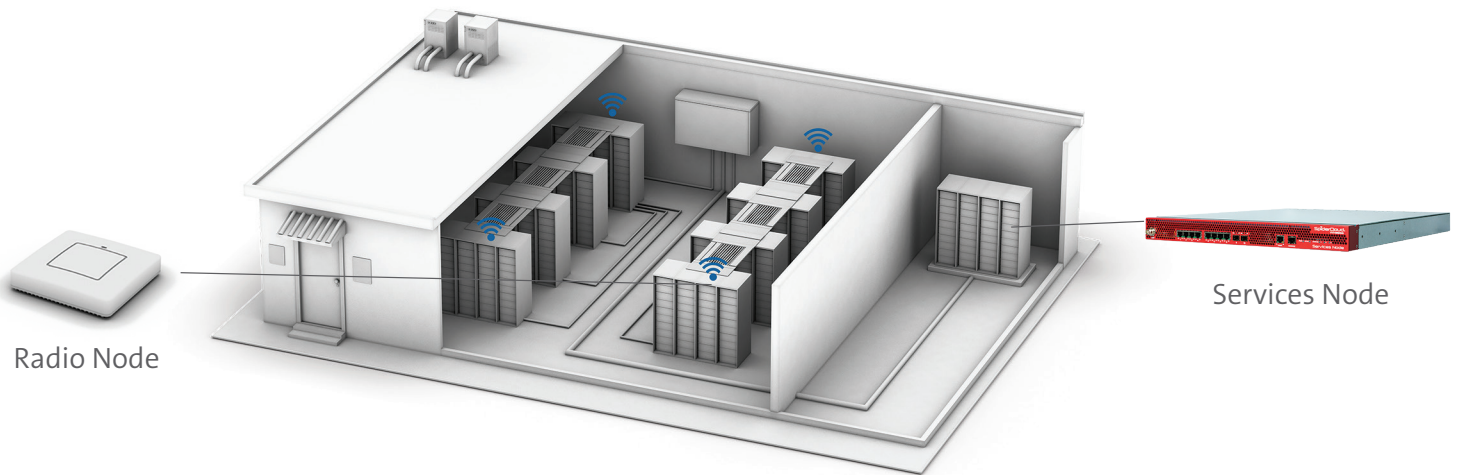


Services node connects to operator network over internet



Reliable cellular coverage and capacity anywhere in the data center

## Typical Small Cell Installation in a Data Center



### What is a cellular maintenance network?

It is a targeted small cell solution that provides five bars of cellular coverage throughout the data center. Because a data center is not like the typical corporate office, most employees will have an employer-issued mobile device from the company's contracted mobile operator.

In a data center, where most of the networks are extremely high-speed optical interconnects, the Corning SD-LAN is the ideal companion-transport infrastructure to the E-RAN. It provides the necessary PoE+ ports for the radio nodes, service segregation, electromagnetic interference (EMI) resistance, and ability to extend composite cabling (fiber optic and copper) beyond the 100-meter limit of Category 5e/6 cabling.

### Are there any requirements for IP services from the data center?

No, because Corning understands the high-security nature of today's data center operations, the E-RAN is designed to be fully self-contained and requires no external IP services. It internally manages IP addresses and the infrastructure services required by the system.

### What type of backhaul is required to connect to the operator?

E-RAN installations typically use internet backhaul (outside of the firewall) to connect to the desired operator's mobile core network.

### Where is equipment installed in the data center?

The E-RAN services node and SD-LAN SDDP headend are installed in the meet-me room (MMR). Headend space consumption requires four to six rack units (RU), depending on configuration. The E-RAN radio nodes and SD-LAN SDANs are installed in the data center itself and can be attached to overhead cable trays or on the ceiling.

### What if the data center has a multioperator service requirement?

Corning offers a family of DAS solutions that can combine with E-RAN instances to deliver multioperator service inside the data center.

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