

# Designing Beyond **100 METERS**

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A strategic guide to extended  
distance networking



Modern networks are evolving. From smart buildings to sprawling campuses, the need to extend application delivery beyond traditional limits is reshaping network design. This guide explores practical strategies and solutions for scalable, future-ready networks.

Why

# EXTENDED DISTANCE



Modern buildings and campus environments continue to grow in both size and the number of ethernet connections required.



Telecom rooms and active gear are expensive, and budget pressures prioritize minimizing both.



Extended distance solutions reduce infrastructure complexity and support scalable growth.

# Where It's **NEEDED MOST**



Remote IP cameras in parking lots, garages, and perimeter zones.



Wi-Fi access points in large warehouses, stadiums, and outdoor areas.



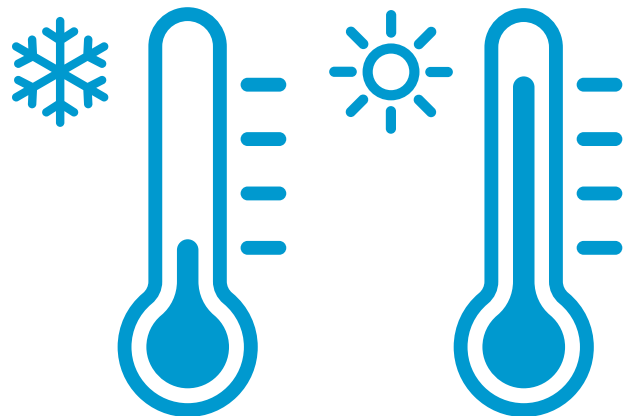
IoT and building management systems in legacy facilities without space for new telecom rooms.

Planning for

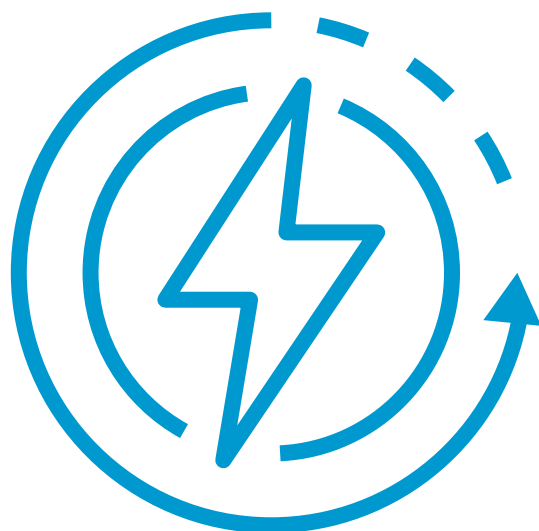
# PERFORMANCE & REACH



Evaluate distance and data rate requirements early in the design process.



Account for environmental factors like temperature fluctuations, outdoor exposure, retrofit constraints, and cable routing.



Consider PoE levels and power needs for edge devices.

# DEPLOYMENT TIPS

Are your longest links exceeding 100 meters?

Identify longest links and device locations before finalizing infrastructure plans

Are you wired for growth in high-density environments?

Are you adding telecom rooms just to reach a few extra meters?

Simplify your Bill of Materials, while maintaining scalability, by selecting cabling that can be used for both traditional channels and extended distance links



# DEPLOYMENT TIPS

Choose solutions that perform in your real-world environment

When space or budget constraints limit infrastructure expansion, extended distance options can help bridge the gap

Select solutions that are backed by performance testing and warranty support

Avoid surprises and ensure that performance is specified over a real-world operating temperature range, not just at a static 20°C (68°F)



Ready to

# EXTEND YOUR REACH?



Explore extended distance solutions at [Leviton.com/ExtendedDistance](https://www.leviton.com/ExtendedDistance).



Contact your Leviton representative for design support and consultation at [Leviton.com/ns/support](https://www.leviton.com/ns/support).