

Ethernet

Ethernet has become the go-to technology for high-performance, reliable and cost-efficient connectivity. Healthcare providers use it to connect imaging facilities to hospitals and improve patient care, while banks rely on its ability to cost-effectively connect branches with regional headquarters.

Our Ethernet solutions combine the reliability and ubiquity of Carrier Ethernet with next-generation metro area transport technology. The result is an efficient, fully restorable network that's easy to manage and ready for any vertical or application requirement. Additionally, the natural flexibility of Carrier Ethernet allows us to offer you a range of solutions that give you varying levels of control to meet the bandwidth and security requirements you need—today and in the future.

Our business Ethernet solutions include MetroE Advanced Private Line, E-Line, Ethernet Virtual Private Line (EVPL) and Ethernet Private LAN (E-LAN). With support for Layer 2 point-to-point, point-to-multipoint and multipoint-to-multipoint topologies, you can seamlessly extend your Ethernet network from your building into the metro area and beyond.

With a private, diverse fiber backbone, along with protected access options, we offer a robust solution set for your business continuity requirements. With approximately 90,000 route miles of fiber across every major metro area, you'll be tapping into one of the largest, densest Ethernet footprints in the country.

Our fully staffed Network Operations Center and locally based service teams proactively monitor your fiber network around-the-clock and respond to changing circumstances—giving you unmatched reliability and peace of mind.

Key Benefits

- ▶ Seamless interconnection with no additional equipment on your premises, reducing equipment capital costs
- ▶ Simple installation and turn-up with no protocol conversion
- ▶ Easier installation and management allows for rapid provisioning compared to other platforms
- ▶ Flexible bandwidth allows you to pay as you grow
- ▶ Scalability for long-term network evolution connectivity

Key Features*

- ▶ Speeds from 10Mbps to 50Gbps
- ▶ Switched and dedicated bandwidth configurations
- ▶ Dedicated access links with multiple protection options
- ▶ Standards-based IEEE Ethernet service for Layer 2 transport
- ▶ 802.1Q VLAN and 802.1 QinQ tunneling supported
- ▶ MEF Carrier Ethernet 2.0, MEF 9, and MEF 14 certified technology
- ▶ 24/7 network monitoring

**Not all features are available in all markets. Please contact your sales representative for more information.*

Additional solution details

- ▶ Our Ethernet solutions enable the extension of dedicated or virtual LAN infrastructures for WAN connectivity, with committed information rates from 10Mbps to 50Gbps and guaranteed network performance.
 - E-Line: Dedicated UNIs for point-to-point connections—simple and secure
 - EVPL: A flexible, virtualized option allowing multiple applications and connections to run over a converged interface
 - E-LAN: Transparent LAN service and multipoint VPNs
 - MetroE Advanced Private Line: Private Ethernet delivered over dedicated fiber with switches deployed at each end-user location across a metro area.
- ▶ Four Classes of Service provide the routing options necessary to manage traffic while ensuring application performance:
 - Mission Critical: Ultra-high availability, superior performance, lowest latency
 - Business Critical: High-availability, high-performance
 - Business Priority: Enhanced performance
 - Standard: Standard performance



SPECIFICATION	METRO-E ADVANCED PRIVATE LINE	E-LINE	EVPL, E-LAN
Technology	Layer 2 Ethernet over private fiber	Layer 2 Ethernet over DWDM or fiber	Layer 2 Ethernet over MPLS or fiber
Throughput	10Mbps - 100Gbps	10Mbps - 50Gbps	10Mbps - 50Gbps
Interface	1GigE, 10GigE, 25GigE, 40GigE, 100GigE	1GigE, 10GigE, 25GigE, 40GigE, 100GigE	1GigE, 10GigE, 25GigE, 40GigE, 100GigE
Framing	Jumbo Frames up to 9100	Jumbo Frames up to 9100	Jumbo Frames up to 9100
Network Management	24/7 monitoring and surveillance	24/7 monitoring and surveillance	24/7 monitoring and surveillance
Network Options	Metro configurations	Long-haul and metro configurations	Long-haul and metro configurations
Availability	Available at most on-net locations throughout the Crown Castle network	Available at most on-net locations throughout the Crown Castle network	Available at most on-net locations throughout the Crown Castle network
Architecture	Point-to-point	Point-to-point	Point-to-point, point-to-multipoint, multipoint-to-multipoint

Why Crown Castle?

Our unique, nationwide portfolio

With approximately 90,000 route miles of fiber, we own and operate one of the largest and densest fiber networks in the country with a presence in 23 of the top 25 US markets.

Our proven track record

In our 30+ years of experience owning and operating network assets we've seen it all and we're always ready to adapt to changing network trends.

Our deep expertise

We've worked with nearly every industry so we understand your unique opportunities and challenges and can tailor solutions to meet your goals.

Our solutions

We have your networking and security needs covered. Visit our [infrastructure solutions](#) page to learn more about our suite of solutions and how they can solve your toughest challenges.



Crown Castle owns, operates and leases approximately 40,000 cell towers and approximately 90,000 route miles of fiber supporting small cells and fiber solutions across every major US market. This nationwide portfolio of communications infrastructure connects cities and communities to essential data, technology and wireless service—bringing information, ideas and innovations to the people and businesses that need them.