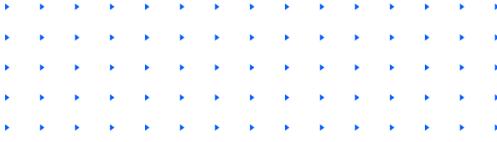


Ready your network for the AI era

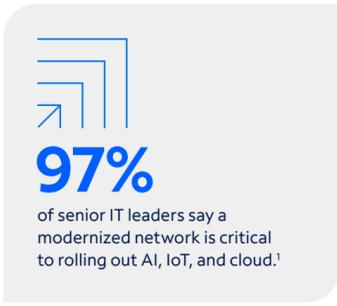
AI is dramatically changing how businesses operate. To fully experience its promise, your networking infrastructure must be prepared. AI initiatives hinge on the speed, security, scalability and reliability of your network connectivity.



Whether you're planning to use AI to automate repetitive tasks, leverage real-time analytics or create hyperpersonalized customer experiences, your ability to move data quickly and securely is critical. Use this checklist to address key network modernization priorities and prime your infrastructure for the AI era.

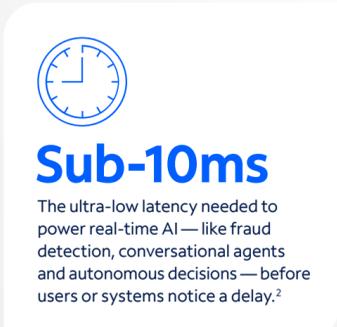
1. Ensure AI-ready bandwidth and throughput capacity

- **Assess current and future network bandwidth.** Understand your present network capabilities and where constraints might exist — and plan for growth.
- **Analyze throughput performance.** Make sure your infrastructure can handle large, sustained data transfers without bottlenecks.
- **Identify AI-related peak traffic loads.** Include scenarios like real-time data ingestion, Internet of Things (IoT) devices and large-model training.
- **Compare current vs. projected data volumes.** AI data requirements can scale from gigabytes to petabytes quickly.



2. Prioritize low latency and high availability

- **Minimize latency for real-time applications.** Low-latency connections are essential for generative AI (GenAI), robotics and real-time analytics.
- **Consider software-defined wide area networking (SD-WAN) and edge computing.** Reduce latency by bringing processing closer to your data sources.
- **Integrate private fiber connections.** For mission-critical AI applications, fiber ensures ultra-low latency and higher consistency.
- **Implement high-availability strategies.** Include automatic failover routing, redundant hardware paths and service-level agreements (SLAs).



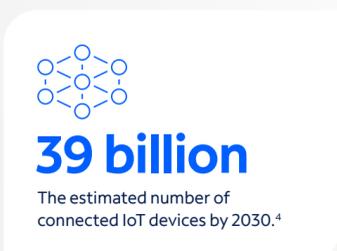
3. Invest in security, resilience and data governance

- **Adopt a layered, zero-trust security model.** Build in redundancies and backup communications, segment traffic with virtual local area networks (VLANs) and isolate sensitive AI training data.
- **Enable multi-factor authentication (MFA).** Protect access to AI models, data pipelines and administrative resources.
- **Implement real-time AI threat detection.** Use AI to protect your investments by spotting anomalies in network behavior.
- **Conduct regular security audits and compliance checks.** This is especially important if you handle regulated data in industries such as healthcare or financial services.



4. Plan for scalability and automation

- **Use modular network designs.** Make it easy to add capacity without replacing the core infrastructure, and explore AI-enabled orchestration tools.
- **Leverage cloud and hybrid infrastructure.** Dynamically scale compute and storage where needed.
- **Prepare for edge expansion.** AI grows with the addition of IoT devices and mobile applications, meaning more data and compute at the edge.
- **Consider an SD-WAN for smart traffic routing.** Prioritize AI-related flows and adapt to real-time conditions.



5. Evaluate the benefits of moving to fiber

- **Audit your existing physical connections.** Identify any bandwidth-limited segments and replace them with dedicated fiber.
- **Determine where fiber offers gains.** Look at bandwidth, latency and reliability — all of which are essential for AI data pipelines.
- **Optimize the physical infrastructure.** Focus on high-capacity, low-latency networking across distributed environments.
- **Ready your network.** Design with evolving AI models and ever-growing datasets in mind.



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Networking is the foundation for AI. Align your network strategy and AI goals by partnering with us. We offer high-capacity fiber internet connectivity, a portfolio of managed services and 100% U.S.-based support, available 24/7. Partner with Spectrum Business to build a reliable, scalable foundation that grows with your AI ambitions.

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