Network Readiness & AI:
A Playbook for MSPs

How MSPs can Optimize Customer Networks to Support AI—Improving Outcomes and Driving Long-Term Value

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Introduction

In today's AI-driven business landscape, network reliability is no longer optional—it's essential. Yet while organizations are moving full speed ahead with AI, many still lack the infrastructure to support their initiatives. According to F5, only 2% of enterprises are fully prepared to operationalize AI, while more than one in five report low AI readiness—with major gaps in areas like resilient networking, AI-specific security controls, and continuous data management.[1]

The fact is, AI systems depend on continuous data flow and high availability to function as intended. Disruptions in network infrastructure can compromise model performance, delay automation, and erode trust. And as a result, traditional and reactive networking approaches are not designed for this level of operational dependency.

As an MSP, offering robust, resilient network solutions—like SD-WAN, SASE, and fault-tolerant architectures—helps you strengthen client relationships and protect mission-critical AI operations. Read on to learn how you can fully capitalize on network readiness and use it to initiate high-value conversations that drive measurable business outcomes.

Why Network Readiness is Essential for AI

For businesses, network readiness isn't just about staying competitive—it's about survival. Organizations today require networks that support continuous data flows, scale with evolving AI workloads, and deliver the resilience to keep critical systems up and running without interruption.

As a result, companies are spending heavily to modernize their environments. In a recent IDC study, 47% of North American enterprises said that generative AI had a significantly larger impact on connectivity roadmaps and strategy in 2024. An additional 32% said that generative AI will influence their current connectivity transformation plans.[2]

MSPs have a critical role to play as strategic advisors, by helping clients understand the transformative potential and the necessity of having modern, resilient networking infrastructure. Savvy providers can also use network readiness to drive growth through stronger MRR and deeper ongoing client engagement.

When the Network Fails, AI Fails

Gartner predicts that generative AI spending will exceed $600 billion in 2025, representing a 76.4% year-over-year increase.[3] McKinsey research shows that 92% of executives plan to increase AI investments over the next three years.[4] We are on the cusp of a new era in AI, with new agentic technologies coming to market that promise to transform the way companies operate.

As businesses continue to modernize their operations and become more reliant on AI, network downtime poses an increasing threat.

Businesses that fail to prioritize network readiness risk the following scenarios:

Data Disruptions

Many AI deployments require continuous data flows to function effectively. When networks fail, the consequences cascade through AI systems, creating gaps in model accuracy, training delays, and incorrect insights. Traditional reactive network management means these issues often go undetected until damage is done.

AI-powered networking solutions change this equation entirely. Intelligent monitoring systems can predict and prevent disruptions before they impact AI workloads, ensuring consistent data flows that keep AI systems running optimally.

Automation Breakdown

Companies increasingly rely on AI and ML to power critical processes like customer service chatbots, automated monitoring systems, and real-time decision-making platforms. Network downtime doesn't just slow these systems—it can create cascading failures that impact customer experience and business operations.

Loss of Trust

When AI systems produce incorrect outputs or stop working due to network issues, end-users and customers lose confidence.

This erodes internal adoption and threatens AI investments. For businesses betting their future on AI transformation, network reliability becomes a competitive differentiator.

Model Drift

Inconsistent data flow during network outages can cause model drift, where AI systems make decisions using outdated and incomplete information. This degradation often goes unnoticed until system performance has significantly declined, making it one of the most dangerous network-related AI risks.

Strategic Growth Opportunities in AI-Ready Networking

1. Bandwidth and Data Throughput

AI workloads generate data demands that dwarf traditional business applications. Machine learning training, real-time inference, and AI-powered analytics require high-speed data transfers that can overwhelm conventional network infrastructure.

Critical considerations:

- AI training models can require terabytes of data movement.
- Real-time inference applications need consistent, high-throughput connections.
- Video and image processing AI applications exponentially increase bandwidth demands.
- Bandwidth limitations create processing delays that compound across AI systems.

Where MSPs can add value: Intelligent bandwidth allocation, predictive capacity planning, and dynamic traffic optimization can ensure AI workloads receive the network resources they need without impacting other business operations.

2. Latency Reduction

Real-time AI applications—from autonomous systems to interactive customer service agents—require ultra-low latency performance. Even milliseconds of delay can render AI applications ineffective or create poor user experiences.

Why traditional approaches fall short:

- Static routing can't adapt to changing network conditions.
- Manual optimization is too slow for dynamic AI workloads.
- Legacy infrastructure lacks the intelligence to prioritize AI traffic.

Where MSPs can add value: Intelligent routing algorithms, edge computing integration, and AI-powered traffic optimization can dramatically reduce latency while maintaining consistent performance.

3. Reliability and Redundancy

High availability isn't just important for AI-driven services—it's absolutely critical. AI systems often become integral to business operations, making network failures potentially catastrophic.

Essential components:

- Robust failover mechanisms with AI-powered decision making
- Intelligent monitoring that predicts failures before they occur
- Automated recovery systems that minimize downtime
- Continuous traffic analysis to identify and eliminate bottlenecks

Where MSPs can add value: Traditional monitoring reacts to problems; AI-powered networking prevents them. Predictive analytics can identify potential failures hours or days in advance, enabling proactive intervention.

4. Scalability and Future-Proofing

AI demands on network infrastructure will only grow more complex. Organizations are rapidly expanding from simple text-based applications to sophisticated video processing, real-time analytics, and multimodal AI systems.

Planning considerations:

- Seamless integration with emerging technologies like 5G and edge computing
- Flexibility to handle unknown future AI workloads
- Automatic scaling capabilities that respond to AI demand spikes
- Infrastructure that can evolve with AI technology advances

Where MSPs can add value: MSPs can help clients design flexible, adaptive networks that grow with AI, and avoid costly rework as needs evolve.

Proven AI Applications for Transforming Network Management

Predictive Network Maintenance

AI-powered network monitoring systems can analyze traffic patterns, device performance, and environmental factors to predict equipment failures before they occur. This shifts network management from reactive troubleshooting to proactive optimization.

Client benefits:
- Reduced downtime and service interruptions
- Lower maintenance costs through predictive intervention
- Improved network performance and reliability
- Enhanced customer satisfaction through consistent service

Intelligent Traffic Optimization

AI algorithms can analyze network traffic in real-time, automatically adjusting routing and bandwidth allocation to optimize performance. This is particularly valuable for businesses with dynamic workloads or distributed operations.

Proven results:
- Automatic adaptation to changing business needs
- Reduced need for manual network configuration
- Improved user experience across all applications

Automated Security Response

AI-powered security systems can detect and respond to threats faster than human administrators, automatically implementing protective measures while alerting IT teams to potential issues.

Security advantages:
- Real-time threat detection and response
- Reduced risk of successful cyber attacks
- Automated compliance monitoring
- Comprehensive security analytics and reporting

Smart Capacity Planning

AI systems can analyze historical usage patterns, business growth projections, and technology trends to provide accurate capacity planning recommendations, ensuring networks can handle future demands without over-investment.

The MSP Opportunity

Now is the time for MSPs to lean into technology advisory. Global spending on technology consulting is expected to grow by 7% to over $421 billion this year, with 79% of technology buyers expecting to use more consulting services.[5] Companies across all industries are actively seeking trusted advisors who can help them navigate networking challenges and develop greater operational readiness and resilience.

Here at Telarus, we have everything that you need to thrive in your networking practice, including:

- **World-class engineering and advanced solutions teams** to help identify and seize new opportunities.
- **Telarus Hub**, an all-in-one business platform that makes it fast and easy to connect with AI suppliers, track commissions, and grow your business.
- **Deep education, resources, and supplier guidance** around innovative AI technologies.

Telarus helps hundreds of MSPs to easily expand their capabilities and become trusted technology advisors for customers, without adding additional headcount—paving the way for faster IT solution evaluation and selection that solves critical business needs.

To learn more, schedule some time with a Telarus MSP Specialist today.

www.telarus.com/msp-campaign

Sources

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