

TOP TRENDS IN MANUFACTURING FACTORY MODERNIZATION FOR 2025

Manufacturers are facing rising pressure to increase efficiency, reduce risk, and embrace digital transformation. According to our Biannual Manufacturing Survey, [98% of leaders agree that factory modernization is no longer optional](#)—it's a competitive necessity.



Networking: The Digital Backbone

Modern factories run on data. To support real-time decision making and device integration, manufacturers need high-speed, low-latency networking—designed specifically for industrial environments—with:

- Zero trust architecture
- Microsegmentation
- Industrial deep packet inspection
- Real-time anomaly detection

Connected factories see a **21% boost in operational efficiency.**

Cybersecurity and Industry Compliance

Manufacturing is now the most targeted industry for cyberattacks. And with rising insurance premiums and stricter regulations, security isn't just about IT anymore, it's a business risk:

- 59% of manufacturers saw higher cyber insurance premiums.¹
- And 27% struggle to meet requirements.¹
- Meanwhile, 14% were dropped from coverage.¹

Key Compliance Standards
NIST | ISO | CMMC



Composable Architectures

Rigid, monolithic systems are being replaced by flexible, modular frameworks. Composable architectures let manufacturers adapt faster to new market demands and accelerate innovation.

The composable applications market is **projected to reach \$8.09B in 2025**, highlighting rapid adoption as organizations seek greater agility and modularity.²

Third-party Remote Access

As remote maintenance and support become common, secure remote access is critical. Legacy approaches create exposure. New strategies must minimize risk while enabling productivity.

- 51% of manufacturers experienced data breaches via third-party access.³
- And 66% have not implemented least privileged access models.³

Best Practices:

- Zero trust access
- Transaction auditing
- Fine-grained controls



Edge-to-cloud Integration

Manufacturers need to process data locally for speed and in the cloud for scale. Integrating these environments enables advanced analytics, predictive maintenance, and agile operations.

Key Use Cases:

- Real-time quality control
- AI-enabled supply chain tracking
- Smart maintenance alerts

Automation and Artificial Intelligence

AI and automation are reshaping how factories operate—from robotic process automation to AI-based decision support.

Investment Insight:

- Industrial firms will spend 25% of their capital on automation tech over the next five years.⁴

Emerging Technologies:

- Small Language Models (SLMs)
- Agentic AI
- Autonomous Mobile Robots (AMRs)



Data Integration for Decision Making

Scattered data limits insight. Integrated data fuels operational intelligence and growth. Modern manufacturers are building data lakes and orchestration systems across all layers. Accenture notes data integration can drive 30% YoY business growth.⁵

Workforce Transformation

As factories modernize, the workforce must evolve too. Reskilling and training programs are essential to support new tools and technologies.



Why Connection?

Modernization isn't a one-time upgrade—it's a long-term strategy for staying competitive. Connection partners with manufacturers to deliver end-to-end modernization—from network infrastructure and cybersecurity to edge computing, automation, and ongoing support. Our experts understand industrial environments and bring the solutions, services, and expertise needed to help you build a smarter, more secure factory.

Contact us today to start your modernization journey.

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