

Securing High-Tech Intelligent Manufacturing on AWS

Business Challenge

High-tech manufacturers are racing to implement intelligent manufacturing strategies driven by AI. However, reliance on automated decision-making creates a fragile ecosystem where any security vulnerability can halt global production. The intellectual property behind these technologies, proprietary algorithms, and chip designs is a prime target for ransomware. Legacy backup solutions cannot handle the scale of AI training data or the complexity of containerized workflows, leaving organizations exposed to data loss, reputational harm, and extended downtime.

Solution Overview

Veeam and AWS deliver intelligent resilience for hi-tech and electronics organizations with unified data protection, security, and compliance across hybrid and cloud environments.

Veeam Data Platform (VDP) delivers cloud resilience for AWS with rapid recovery, compliance-aligned security, and intelligent threat detection. For Kubernetes workloads, Veeam Kasten provides purpose-built, application-aware data protection designed specifically for cloud-native environments.

Together, VDP and Kasten create a unified, end-to-end resilience strategy across cloud and Kubernetes workloads. Extend that protection with Veeam Vault as your secure, fully managed cloud repository for immutable backup storage — reducing vendor sprawl while strengthening cyber resilience.

71%

of IT leaders are either not confident (30%) or somewhat confident (41%) in maintaining operations during a multi-day cloud provider outage.*

66%

of IT leaders see AI-generated attacks as the most significant threat to data, even ahead of ransomware (50%).*

60%

of organizations report reduced visibility of where their data resides due to the growth of multi-cloud and SaaS environments.*

*"Cybersecurity Threats and AI Disruptions Top Concerns for IT Leaders in 2026", Veeam, December 2025.

Benefits

- Guarantee the availability of autonomous robotic lines with instant recovery for edge Kubernetes clusters.
- Protect IP and AI models with immutable, tamper-proof policies.
- Accelerate R&D by using backup data to spawn isolated "digital twin" environments for safe testing.
- Reduce the storage costs of massive sensor telemetry logs by tiering to Amazon S3 Glacier Deep Archive.
- Ensure consistent data governance across global factories, effectively eliminating dangerous shadow IT.

Use Cases

Protecting AI Model Training Sets

Safeguard massive, high-value training datasets stored on Amazon S3 and FSx to effectively prevent the corruption of critical machine learning algorithms used in production.

Securing Proprietary Chip Designs

Defend large R&D investments by locking sensitive EDA and CAD files in immutable Veeam Vault storage that sophisticated ransomware attacks cannot encrypt.

Standardizing Factory Edge Data

Unify data protection policies across disparate factory locations running AWS Outposts or EKS Anywhere to ensure consistent global compliance and visibility for IT teams.

Conclusion

Manufacturing success is often defined by the speed of innovation and the reliability of automation. Veeam and AWS provide the essential foundation for secure growth. Together, they empower high-tech leaders to embrace AI without the fear of data loss or operational disruption.

By securing your design, production, and supply chain, Veeam ensures that your IT and OT data remains safe, your factories keep running, and you maintain your competitive edge.



Ensuring Robotic Fleet Uptime

Maintain continuous operations for autonomous mobile robots and assembly arms by instantly recovering edge Kubernetes control planes with Veeam Kasten's native integration.

Enabling Digital Twin Simulations

Accelerate innovation by rapidly spinning up isolated test environments from backups to validate new robotic firmware updates without risking live manufacturing hardware.

Archiving Production Telemetry

Automatically tier petabytes of historical sensor data and quality logs to Amazon S3 Glacier Deep Archive to cost-effectively satisfy long-term regulatory retention mandates.

About Veeam Software

Veeam, the #1 global market leader in data resilience, believes businesses should control all their data whenever and wherever they need it. Veeam provides data resilience through data backup, data recovery, data portability, data security, and data intelligence. Based in Seattle, Veeam protects over 550,000 customers worldwide who trust Veeam to keep their businesses running. Learn more at www.veeam.com or follow Veeam on LinkedIn [@veeam-software](https://www.linkedin.com/company/veeam) and X [@veeam](https://twitter.com/veeam).

Veeam + AWS

Veeam and AWS go beyond typical backup and recovery, providing cyber-resilient solutions for protecting cloud, virtual, physical, SaaS, and Kubernetes environments. Veeam's powerful solutions on AWS enable you to quickly restore when cyberattacks, like ransomware, occur, helping minimize downtime so you can continue business as usual.

➔ Learn more: [veeam.com](https://www.veeam.com)