

CASE STUDY

A Major Commercial Airline Advances Network Visibility and Operational Efficiency with Gigamon



Gigamon has helped us reduce traffic flowing to our monitoring tools, make better use of our existing infrastructure, and retain critical network data for longer. Now we're exploring how application-aware telemetry can help our teams make more informed decisions.

SENIOR NETWORK ENGINEER
Large Commercial Airline

CHALLENGES

- Limited application visibility, particularly across encrypted traffic
- Inefficient traffic processing that strained monitoring and storage capacity
- Need to protect sensitive payment card information and support PCI DSS compliance
- Need for richer application context to improve troubleshooting and network operations

CUSTOMER BENEFITS

- Approximately 50 percent reduction in traffic volume through de-duplication
- More efficient use of packet-capture infrastructure and longer data retention
- Reduced exposure of sensitive payment card information in downstream monitoring tools, supporting PCI DSS compliance efforts
- Improved efficiency and value of existing network monitoring investments
- Foundation for richer application-aware telemetry and future operational insights

SOLUTION

- GigaVUE® HC Series
- GigaSMART®
- Application Metadata Intelligence (AMI)
- Application Filtering Intelligence (AFI)

For more than a decade, a major commercial airline has relied on the Gigamon Deep Observability Pipeline to strengthen network visibility and improve the efficiency of its monitoring infrastructure. Now, the airline is building on that foundation with an investment in application-aware telemetry to provide richer context for network operations and lay the groundwork for higher-quality intelligence.

About Customer

This major commercial airline operates a complex network infrastructure supporting customer-facing services, enterprise applications, and critical business operations. To maintain reliable network performance and strengthen visibility across its environment, the airline has invested in a scalable Gigamon architecture that supports network monitoring, security, and operational efficiency.

As part of an ongoing modernization initiative, the airline is building on its established Gigamon investment to provide richer application-aware telemetry and help network operations teams improve troubleshooting, investigation, and decision-making.

Business Challenge

Before adopting Gigamon, the airline faced network visibility and traffic-processing challenges that limited the efficiency of its monitoring infrastructure. Its existing packet broker solution struggled with de-duplication, increasing the volume of redundant traffic delivered to downstream tools and placing additional pressure on storage capacity.

The airline also needed a way to protect sensitive payment card information captured from airport kiosks before that traffic reached downstream monitoring and analysis tools, supporting its broader PCI DSS compliance requirements.

The airline's network supports a broad range of business-critical services, including enterprise applications, web traffic, e-commerce, and customer-facing systems. Maintaining reliable performance across these services requires network operations

teams to identify issues quickly, troubleshoot efficiently, and ensure monitoring tools receive the network traffic needed for effective analysis.

As application environments grow more complex and encrypted traffic becomes more prevalent, the airline also faces increasing demand for richer application context to help teams understand network activity and identify potential performance issues.

Resolution

The airline's multi-tier deployment includes GigaVUE-HC3 and GigaVUE-HS1P appliances for traffic management, GigaVUE-HC1 appliances for lower-density environments, GigaVUE-TA200 appliances for high-volume traffic aggregation, and GigaVUE-TA40 appliances for smaller traffic feeds. Together, these components form part of the Gigamon Deep Observability Pipeline, which aggregates, processes, and delivers network-derived telemetry to downstream security, monitoring, and analytics tools.

GigaSMART capabilities such as de-duplication, filtering, and data masking further optimize traffic delivery, helping the airline reduce unnecessary data volumes, protect sensitive information, and make more efficient use of existing monitoring investments.

As part of its ongoing modernization initiative, the airline has invested in Gigamon Application Metadata Intelligence (Gigamon AMI) to expand application visibility and provide richer context to its network operations tools. With implementation planned for late 2026, the airline aims to generate application-aware metadata that can help teams better understand network activity, identify performance issues, and accelerate troubleshooting, including in environments where encryption limits traditional inspection.

The modernization initiative also includes Gigamon Application Filtering Intelligence (AFI), designed to help reduce unnecessary application traffic delivered to downstream monitoring tools. By prioritizing relevant traffic, the airline aims to improve monitoring efficiency, conserve storage capacity, and help network operations teams focus on information most useful for troubleshooting and investigation.

Benefit

Through GigaSMART de-duplication, the airline has reduced the volume of traffic delivered to downstream monitoring tools by approximately 50 percent, helping alleviate storage constraints and optimize existing investments. By eliminating duplicate traffic, the airline has also reduced the number of packet-capture appliances required while retaining critical network data for longer periods. This enables network operations teams to make more efficient use of monitoring resources without unnecessarily increasing infrastructure capacity.

“Gigamon’s de-duplication feature was one of its main selling points for us—and it was really simple to get up and running,” said the Senior Network Engineer.

The airline also uses GigaSMART data masking to help protect sensitive payment card information associated with transactions at airport kiosks. By masking cardholder data before delivering traffic to downstream monitoring and analysis tools, the Gigamon Deep Observability Pipeline helps reduce unnecessary exposure of sensitive information while preserving the network visibility that operations teams need.

This capability supports the airline’s broader efforts to adhere to Payment Card Industry Data Security Standard (PCI DSS) requirements, enabling network monitoring and troubleshooting while helping protect traveler payment information.

What’s Next

A demonstration of Gigamon Insights helped motivate the airline’s decision to advance its investment in Application Metadata Intelligence (AMI). The demonstration showed how AI-assisted insights

could make network information more accessible to a broader range of users, while richer application-aware telemetry could provide the contextual evidence needed for more informed decisions.

With AMI implementation planned, the airline aims to strengthen application visibility, improve troubleshooting, and help network operations teams work more efficiently. The airline is also exploring how Gigamon Insights could enable employees to access relevant network information through a conversational interface, reducing reliance on specialized teams for routine inquiries and investigations.

“My vision is to have as many users as possible log into Gigamon Insights to get the information they need without having to engage teams that are busy doing other things.” Senior Network Engineer, Major Commercial Airline

About Gigamon

Gigamon® delivers an AI-powered Deep Observability Pipeline that provides network-derived telemetry to cloud, security, and observability tools. With AI-driven insights across packets, flows, and application metadata, organizations gain complete visibility into all data in motion to detect threats concealed in encrypted and lateral traffic, resolve network and application performance issues, and validate compliance while reducing operational cost and complexity. Gigamon is trusted by 4,000+ organizations, including 83 of the Fortune 100 and hundreds of public sector agencies and educational institutions.

To learn more, please visit gigamon.com.



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