Case Study
South Korean Life Insurer

Prevention Instead of Reaction
Reliable Network for 6,000 Locations: 50% Less Packet Loss and Latency

Industry: Finance / Insurance
Customer: Large South Korean life insurer

Challenge: Gaining visibility into and analyzing packet loss and delays, response times, and anomalies across different security zones

Transparency is especially important in large, distributed networks. This requires flexible options for capturing data across various network segments and security zones, as well as powerful and efficient analysis capabilities. A life insurance company based in South Korea chose Allegro Packets for this purpose. The insurer holds over USD 50 billion in capital and generates multi-billion-dollar annual revenue.

Challenge: Operating the Network Blind

The insurer runs a network spanning 6,000 banks and branch offices nationwide. It was looking for a comprehensive network analysis solution to increase visibility and combine it with proactive error detection and analysis.

Specifically, the customer faced the following challenges:

- **Unclear root causes of disruptions in business-critical applications**
- **Lack of visibility across complex, distributed networks**
- **No clear visualization of transaction times and anomalies**
- **Long troubleshooting times affecting sales and customer service**
- **Reactive rather than proactive IT support**

The solution needed to record all network traffic, analyze it in real time, and operate across different security zones and deployment scenarios. Latency, packet loss, and response times for relevant protocols, services, and applications had to be measurable. Visualization features were required to further enhance transparency. Anomalies and performance bottlenecks needed to be detected at a segment level, with automated alerts triggered accordingly. A competing solution proved too complex and expensive, and only partially met these requirements.

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Solution: Strategically Placed Appliances

The customer chose multiple portable Allegro 810 and 500-L appliances, deploying them at various points throughout the network.

The Allegro 500-L, with 4x1G copper ports, a maximum throughput of 4 Gbit/s, an 8 GB in-memory database, and a 1 TB SSD, is particularly suited for traffic recording and analysis in access network areas or in environments with limited bandwidth, such as WAN connections at remote sites.

The Allegro 810 offers 2x SFP28 and 3x 1GBase-T ports, along with an expansion slot. It supports up to 20 Gbit/s throughput, making it suitable for high-bandwidth environments, central breakout points, and switch uplinks. Despite this performance, it remains portable, weighing only 2 kg.

Results: Errors Halved, ROI Quadrupled

The solution paid for itself within just three months, with ROI exceeding 400% after one year. Network error rates dropped by 50%, leading to significantly improved operational reliability.

The customer now benefits from true real-time analysis. The Allegro Network Multimeter provides 24/7 service-level monitoring for critical services, while its integrated in-memory database delivers far better performance than the previously used solution. In case of anomalies or threshold violations, automated alerts can be sent via channels such as email, SNMP traps, Syslog, or Apache Kafka. This enables the customer to quickly identify, resolve, and prevent issues.

Additionally, bandwidth utilization and microbursts are measured per network zone, link, and location, allowing highly granular analysis of events. Microburst analysis even detects short-term overload situations within milliseconds. Virtual Link Groups (VLG) bundle relevant interfaces, enabling targeted analysis of defined network zones. IT staff are highly satisfied, as they can now generate analyses and reports from multiple measurements much faster.

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Measurable Added Value:

- Continuous, gapless recording for forensic analysis and compliance
- Unified user interface for centralized management
- Detection of microbursts and load peaks within milliseconds
- Automated alerts for threshold violations
- Significantly reduced mean time to repair (MTTR)
- ROI achieved in just three months

Conclusion: Full Visibility, One Step Ahead

In the financial and insurance sector, performance issues and outages can quickly lead to substantial financial losses. Portable analysis tools like the Allegro 500 and 810 significantly improve network visibility and accelerate troubleshooting and resolution. They can be flexibly deployed at various points in the network. The excellent price-performance ratio makes the solution economically attractive. At the same time, faster issue detection and resolution, along with reduced downtime, contribute to a rapid ROI. If the customer decides to extend network analysis to its data centers, additional Allegro Network Multimeters can be seamlessly integrated into the existing setup. Across the entire product portfolio, users benefit from consistent interfaces and efficient workflows.

About Allegro Packets

Allegro Packets, a German-based company, offers portable and rack-mount solutions for network analysis and packet capturing. The brand is setting new benchmarks by combining high performance, reliability, active development, relentless support, and fair pricing in its all-in-one proposition. Allegro Packets' solutions are recognized and utilized by service providers, government organizations, healthcare institutions, and enterprises worldwide.

Website: www.allegro-packets.com