



INERGY Automotive Systems Paris, France

INERGY Automotive Increases Network Performance and Enterprise Security while Realizing a Rapid Return on Investment with Packeteer® Solutions

INERGY Automotive Systems (www.inergyautomotive.com) is the global leader in the design and manufacture of plastic fuel-delivery systems and fluid-storage technologies for automobiles and other vehicles. INERGY sells directly to the largest automobile manufacturers in the world, working closely with their customers' design teams to customize fuel-delivery systems for vehicle models. The parts are then manufactured and supplied on a just-in-time basis.

Providing a custom-designed product at just the right time places business-critical demands on INERGY's global network. Headquartered in Paris, INERGY operates 40 facilities located in 17 countries in Asia, Europe and North America. The company was created in 2000 as a joint venture between Plastic Omnium and Solvay SA, and inherited much of its physical and IS&S infrastructure from its parents. As a result, INERGY, which now has 4,500 employees, initially faced many IS&S challenges—an important one being assurance of enterprise Quality of Service (QoS).

THE CHALLENGE: Achieve network convergence while ensuring Quality of Service

Like most multi-national companies, INERGY recognized the business benefits of ultimately converging all data, voice and video traffic onto a single network. To achieve additional economies of scale, INERGY also moved to a centrally-hosted model for key applications and consolidated servers across its global infrastructure. The move from a distributed infrastructure to a centralized one created pressure to keep the company's global network (INNet) running smoothly. To ensure the success of the migration, the IS&S staff was challenged to preserve business efficiency by guaranteeing performance of all business-critical applications.

In the original distributed network, each packet was treated with equal priority. By adding QoS capabilities to INNet, INERGY could assign granular priority levels to business-critical applications, such as SAP.

QoS would also allow INERGY to manage INNNet more effectively as the company implemented bandwidth-intensive applications like Voice over IP (VoIP) and multimedia collaboration. With the ability to characterize, prioritize and manage network bandwidth, essential business functions could operate unimpaired even during periods of peak traffic load.

INERGY considered three alternatives to adding QoS to INNNet. The first was to add more bandwidth, which was expensive and did not necessarily solve the problem.

The second alternative involved using router-based QoS abilities for traffic flow. But most routers require costly and disruptive upgrades to deliver only rudimentary traffic management capabilities. Even if INERGY were to utilize the routers' QoS features, the company would still need to implement complementary solutions for Layer 7 application classification, hierarchical policy setting, traffic shaping and compression, Web caching and real-time monitoring and reporting.

The third option involved deploying dedicated, state-of-the-art QoS appliances. Such a solution would allow the IS&S staff to analyze, classify, monitor and control all traffic in the global INNNet network. They could be more proactive in achieving predictable application service levels that align with INERGY's business objectives and the improved efficiencies in employee productivity and bandwidth utilization would positively affect INERGY's bottom line.

THE SOLUTION: Provide QoS at all locations with Packeteer solutions

"Our desire was to make the best use of our existing bandwidth, rather than add more to keep up with constantly increasing demand," explained Dr. Arun DeSouza, chief information security officer at INERGY. "We also wanted to avoid making a major investment in infrastructure, so optimizing our network performance at a low cost became the priority."

The evaluation process took 12 weeks, beginning with a rigorous assessment of numerous performance management offerings. The IS&S staff examined each product's ease of installation and operation, reporting functionality and granularity and overall cost and ROI. Preference was given to solutions that were particularly adept at modulating bandwidth consumption, increasing network efficiency and reducing operating costs.

Given the large number of applications running on INNNet, the IS&S staff also

Executive Overview

BUSINESS PROFILE:

- INERGY Automotive Systems is a global tier-one supplier of complete fuel systems and energy storage technologies operating in 17 countries with 40 facilities

INDUSTRY:

- Automotive Fuel Systems

BUSINESS CHALLENGE:

- Support a migration to a converged, consolidated and network-centric infrastructure
- Prioritize and optimize business-critical application performance
- Isolate and suppress recreational and malicious network traffic
- Avoid costly, recurring bandwidth charges

SOLUTION:

- A phased rollout of PacketShaper appliances that will eventually cover a total of 36 sites and Packeteer's PolicyCenter and ReportCenter centralized management tools

BENEFITS:

- Enabled rapid return on investment
- Protected business-critical applications
- Improved overall security, user satisfaction and capacity planning
- Reduced the need to increase WAN bandwidth
- Optimized access to centralized systems and applications
- Minimized system and network downtime

knew it needed granular and versatile policy-based traffic control capabilities. In addition to INERGY's Intranet portal (INVISION), SAP®, e-mail (INMAIL) and Net-Meeting, INERGY supports a long list of other common applications including instant messaging, FTP, computer-aided design, SQL® database, pcANYWHERE™, Citrix®, Active Directory, SCADA and SSL.

"We wished to partner with an acknowledged leader in the field with the ability to support us for the long term, which resulted in narrowing our search down to two vendors," Dr. DeSouza noted. After deploying two production pilots to compare the finalists, INERGY made its choice: the Packeteer QoS platform. The Packeteer solution, which includes PacketShaper®, PolicyCenter® and ReportCenter™, was identified as the only solution with the right toolset for the job. "Our selection of Packeteer constitutes a strong strategic partnership between two industry leaders," adds Dr. DeSouza.

According to Dr. DeSouza, "PacketShaper provides a complete set of tools that allow automatic management of a diverse range of traffic types, and is built on industry-leading technology. We were especially impressed with ReportCenter's granularity of reporting. It could tell us what was happening throughout the network, making it easy to see how different applications were behaving. It also enabled us to tailor policies and identify malicious traffic, which is critical for dependable network operation. The system could also operate transparently, offering no disruption and functioning in pass-through mode in case of unit problems."

THE RESULTS: Increased network performance and enterprise security with rapid payback

INERGY pursued a phased rollout of the deployment, installing seven PacketShaper systems in Wave I, and 13 more in Wave II at key facilities in Europe, Asia and North America. Another 12 systems are currently being deployed in Wave III, while a few more sites will be deployed in a final Wave IV. When the implementation is complete, INERGY expects to have PacketShaper systems installed at a total of 36 sites.

Wave III also includes installation of a PacketShaper appliance at INERGY's external hosting center in London where the company's portal, e-mail and key financial applications are hosted. This will help provide a stronger SLA, enhanced performance and granular visibility into these central, consolidated applications to significantly improve overall management of INNet.

The PacketShaper systems were provided by Packeteer partner EPC Corporation,

Quick Facts

COMPANY PROFILE:

- Inergy Automotive Systems is the global tier-one supplier of complete fuel systems and energy storage technologies. The company was founded through a 50/50 joint venture between the French company Plastic Omnium and Solvay SA, the Belgium chemical company. In 2004, Inergy delivered more than 12 million fuel systems with sales of €1.2 billion (\$1.5 billion).

HEADQUARTERS:

- Paris, France

NUMBER OF REMOTE SITES:

- 40 facilities in 17 countries

EMPLOYEES:

- 4500+

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— Dr. Arun DeSouza,
chief information security officer

based in Denver, Colorado. The deployment and configuration were performed in conjunction with INERGY's managed services provider, Interlink Group in Englewood, Colorado.

INERGY is already achieving cost savings on numerous fronts. Intelligent traffic management eliminates or postpones the need to add WAN bandwidth, which constitutes one of the highest recurring IS&S costs for INERGY.

"The cost-saving advantages of convergence would not be possible without the full suite of PacketShaper's QoS capabilities, such as traffic shaping, compression and caching," Dr. DeSouza noted. The company estimates that compression alone was able to reduce the WAN traffic load by a factor of three. Similarly, the consolidation and centralization of essential applications are possible only when traffic can be prioritized and optimized across the finite WAN bandwidth. Merging QoS capabilities with security provisions adds another layer of protection for the network. With the ability to control traffic in real-time, threats like worms, viruses, Trojan horses and denial-of-service attacks can be prevented from overwhelming systems deployed throughout the network. "This enables us to remain 'ahead of the curve' when new threats like the Nachi and Raleka worms emerge—helping protect our enterprise assets even while patches have not been developed and deployed," explains Dr. DeSouza. "In addition, it helps avoid loss of staff productivity due to widespread remediation efforts. With average deployment costs for a QoS system being less than \$10,000 per site, the return on investment is achieved by avoiding a single network outage or a loss of connectivity to an enterprise data center and hosted applications."

QoS provisions allow new cost-saving applications to be added to the network without disrupting mission-critical services. Once all of the PacketShapers are deployed in Wave III, INERGY expects to make full use of VoIP and multimedia collaboration. These applications will significantly reduce travel expenses and may ultimately eliminate long-distance toll charges.

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PERFORMANCE GAINS:

- 75% decrease in server delay across network
- 20% decrease in bad transactions
- 60% decrease in network latency and jitter
- 300% increase in effective bandwidth
- 50% increase response to Web/HTTP service
- 45% decrease in non-business Internet traffic