Executive Summary

Primax's QCS6490-based IoT gateway platform revolutionizes fleet management by integrating sensors and 5G/LTE connectivity for real-time monitoring and optimized route planning. While enhancing safety and efficiency, cybersecurity risks loom large, prompting proactive measures. To tackle challenges in vulnerability identification and prioritization, Primax selects VicOne's xZETA for its comprehensive automotive vulnerability management, ensuring ISO/SAE 21434 compliance and efficient resource allocation, thus securing its competitive edge.

Business Challenge
Security vs. Reliability: A Product Development Battle

Primax aims to enhance its product security and competitiveness by implementing the principles and processes of ISO/SAE 21434. But its use of source code scanning tools during the software development phase has posed a dilemma: Should it prioritize product schedule or security compliance?

Glynn Kuo, R&D Senior Manager of Primax's Connected Mobility Business Unit, explained: "In the past, source code scanning tools helped us identify vulnerabilities, but they presented challenges by providing lists of vulnerabilities based on individual and separated source codes, lacking the big picture, especially for systemic issues. Additionally, as some suppliers are unable to provide the source code, we have relied on their vulnerability scan reports and SBOMs (software bills of materials). However, we lack the means to verify their accuracy."

Our Solution With AWS
Actionable Intelligence: The Core of Continuity

To help tackle its challenges, Primax ultimately chose VicOne's xZETA automotive vulnerability and SBOM management system. xZETA is a SaaS platform built on the Amazon Web Services (AWS) cloud, which supports high-stability infrastructure and operation. xZETA enables binary analysis, empowering Primax to proactively identify vulnerabilities in its products' firmware or binary and overcome challenges posed by suppliers unable to provide source code.

Additionally, xZETA facilitates automated scans and notifies of vulnerabilities, ensuring ISO/SAE 21434 compliance and upholding a commitment to continuous monitoring. With its unique technology, the VicOne Vulnerability Impact Rating (VVIR), xZETA combines internal insights and external threat intelligence to assess vulnerabilities' real-world impact, aiding in quick identification and mitigation of high-risk issues. This ensures that Primax can allocate its resources effectively based on factual and actionable intelligence.

About Primax Electronics

Primax's QCS6490-based IoT gateway platform is essential for data-driven fleet management. Supporting various sensors, it seamlessly integrates with a vehicle's diagnostics system and 5G/LTE connectivity. With its robust computing power and capabilities, Primax's QCS6490 reference platform enables in-vehicle driver monitoring, enhancing safety. Additionally, it transmits real-time cargo information such as cargo space occupancy, temperature, humidity, and payload back to the fleet operations center (FOC), allowing for optimized route planning and more efficient management.

Kuo explained: "The essence of ISO/SAE 21434 is 'continuous' vulnerability management. Implementing this concept may increase manpower costs and product development timelines by up to 50%. However, xZETA standardizes processes, ensuring true continuity without adding extra resources."

xZETA utilizes Amazon S3 and Amazon Relational Database Service (RDS) for secure, reliable file storage and streamlined relational database management, enabling flexible management and cost-effectiveness while freeing up resources for application development. Additionally, to ensure a future-proof solution, xZETA utilizes Amazon Elastic Kubernetes Service (Amazon EKS) for reliable managed Kubernetes services. This simplifies the deployment and scaling of containerized applications. Through seamless integration with AWS compute units, xZETA benefit from excellent computational scalability to handle increasing service volumes and superior computational elasticity to manage sudden bursts in service demand.
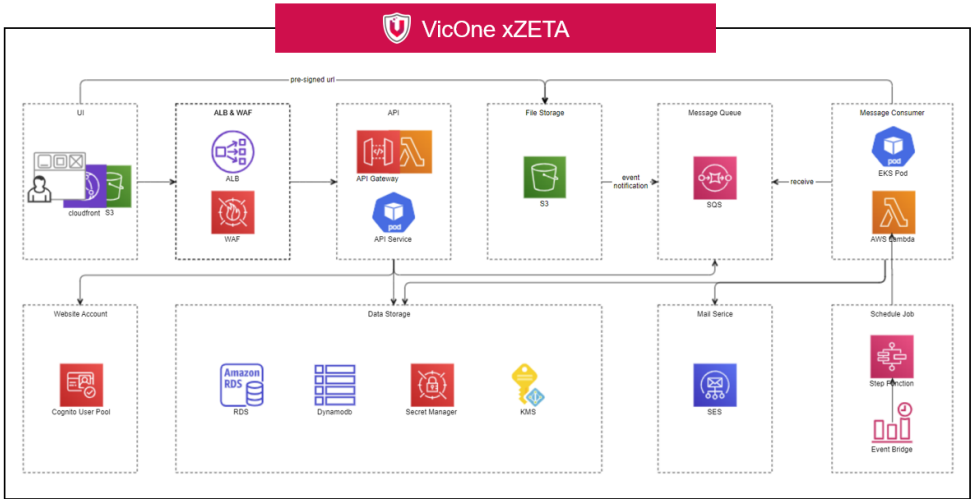
xZETA Architecture: Showcase which AWS technologies xZETA is leveraging.

Results and Benefits
Trust Through Cyber Risk Removal

With VicOne, Primax now utilizes a fully automated vulnerability and SBOM management system to proactively identify potential vulnerabilities, meeting the requirements of ISO/SAE 21434. "VicOne xZETA swiftly addresses unknown cybersecurity vulnerabilities, enhancing our proactive management and product security. This demonstrates our commitment to staying ahead in the dynamic automotive landscape, earning trust from customers. Partnering with VicOne empowers us to deliver a resilient and trustworthy cybersecurity solution, solidifying Primax as a reliable leader in the automotive sector," said Jason Hsu, Primax's Vice President and Head of Connected Mobility Business Unit.

About VicOne
With a vision to secure the vehicles of tomorrow, VicOne delivers a broad portfolio of cybersecurity software and services for the automotive industry. Purpose-built to address the rigorous needs of automotive manufacturers, VicOne solutions are designed to secure and scale with the specialized demands of the modern vehicle. As a Trend Micro subsidiary, VicOne is powered by a solid foundation in cybersecurity drawn from Trend Micro's 30+ years in the industry, delivering unparalleled automotive protection and deep security insights that enable our customers to build secure as well as smart vehicles. For more information, visit: https://vicone.com/.