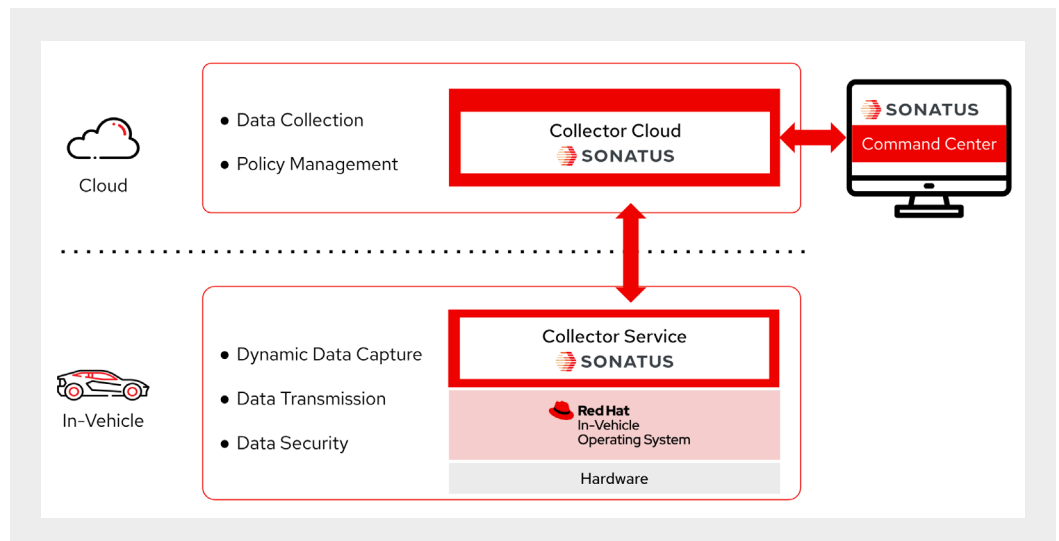


Red Hat and Sonatus: Dynamic data collection for vehicle gateways

As the automotive industry evolves, real-time data collection and management have become essential for optimizing vehicle performance and the overall driving experience, with their importance only set to increase. Red Hat and Sonatus have collaborated to deliver a pre-integrated solution that combines Red Hat In-Vehicle Operating System with Sonatus' advanced data collector, Sonatus Collector. This collaboration creates a flexible, highly configurable, and precise system designed for modern vehicles to enhance gateway system functionality.

Revolutionizing gateway systems for data collection

Gateway systems serve as critical hubs for managing communication between various vehicle systems. Integrating Red Hat® In-Vehicle Operating System with Sonatus Collector provides the ability to capture fine-grained vehicle data in real-time. Manufacturers can dynamically adjust data collection parameters during vehicle operation, ensuring that only the most relevant data is captured, precisely when needed. This streamlines diagnostics, reduces data transmission costs, and improves overall vehicle quality.



Key features

- ▶ **Fine-grained data capture:** Sonatus Collector lets the original equipment manufacturer (OEM) ensure that only the most critical and relevant vehicle data is captured, while Red Hat In-Vehicle Operating System provides a security-focused, reliable foundation for large-scale data management.
- ▶ **Real-time data collection adjustments:** The ability to dynamically modify data collection policies during operation ensures that manufacturers capture only the most pertinent data as conditions change, reducing data volume and transmission costs.
- ▶ **Post-production diagnostics:** With the joint solution, manufacturers can use captured data to diagnose and resolve issues after production, improving vehicle reliability and minimizing downtime.

Key benefits for OEMs

- ▶ **Lower development and integration costs:** By using a pre-integrated solution for vehicle data management, OEMs can reduce costs associated with custom integrations. This allows manufacturers to direct more resources toward innovation, improving vehicle features without the overhead typically required for data collection infrastructure.
- ▶ **Proactive quality management:** The real-time data collection capabilities of Sonatus Collector allows manufacturers to continuously monitor vehicle performance, identifying and resolving issues faster. This proactive approach improves vehicle quality and reduces the time required for diagnostics and maintenance.
- ▶ **High-bandwidth data processing:** Red Hat In-Vehicle Operating System combined with Sonatus Collector supports efficient handling of large volumes of data, which is essential for modern vehicles requiring rapid processing of complex datasets. This capability lets OEMs implement advanced features that rely on real-time data analysis.
- ▶ **Improved scalability and flexibility:** The open source nature of Red Hat In-Vehicle Operating System allows for greater adaptability across various hardware platforms. This flexibility lets manufacturers develop and deploy applications that can evolve with technological advancements, ensuring long-term viability.
- ▶ **Security-focused and adaptable data collection:** Red Hat In-Vehicle Operating System, combined with Sonatus Collector, ensures security-focused data handling and adaptability within the vehicle's communication systems. Real-time adjustments to data collection policies enhance system reliability and adaptability.
- ▶ **General Data Protection Regulation (GDPR) and privacy compliance:** Sonatus Collector ensures compliance with GDPR and other privacy laws, collecting only data approved by drivers based on regional policies and preferences. It supports customizable privacy settings, allowing tailored data collection while providing innovation through anonymized data analysis.

These benefits collectively empower OEMs to navigate the complexities of the automotive landscape more effectively while fostering innovation and maintaining high standards of performance.

Sonatus: Comprehensive data and vehicle management solutions

In addition to data collection, the Sonatus Vehicle Platform offers a range of other complementary solutions that manage vehicle infrastructure, deliver customization and rapid prototyping without coding, enhance vehicle connectivity, data management, and manage modern vehicle over-the-air (OTA), real-time updates. These include vehicle automation tools, data orchestration platforms, and cloud connectivity services that empower manufacturers to manage, analyze, and update their vehicle fleets with unmatched flexibility and precision.

Red Hat In-Vehicle Operating System: Empowering gateway systems with advanced capabilities

While Sonatus provides best-in-class data collection, Red Hat In-Vehicle Operating System serves as a safe and efficient platform to power these operations. Key capabilities include:

- ▶ **Network segregation:** Isolates communication networks for optimized performance and security.
- ▶ **Host isolation:** Prevents interference by isolating critical processes, enhancing system stability.
- ▶ **Packet filtering and protocol fusion:** Allows integration across vehicle systems through granular control of network traffic.

Beyond data collection, Red Hat In-Vehicle Operating System also supports broader use cases for gateway systems, extending beyond the mentioned use case.

- ▶ **Network traffic control and data management:** Enhances communication across vehicle systems.
- ▶ **Robust security:** Includes firewall capabilities to protect against unauthorized access.
- ▶ **Middleware integration:** Streamlines integration with platforms like adaptive AUTOSAR.
- ▶ **OTA updates:** Ensures vehicles are kept up-to-date with software updates.

These capabilities position Red Hat In-Vehicle Operating System as a versatile solution for managing complex vehicle communications and evolving vehicle needs.

Conclusion

Red Hat and Sonatus offer a powerful pre-integrated solution that revolutionizes vehicle data collection and management on gateway systems. Together, these technologies empower manufacturers to enhance vehicle quality, reduce operational costs, navigate regulatory landscapes effectively, and elevate the overall driving experience while addressing specific needs across diverse OEM segments.

For details and a demonstration, contact automotive-requests@redhat.com.

[Learn more about Red Hat's automotive offerings](#)

[Learn more about Sonatus's automotive offerings](#)



About Red Hat

Red Hat helps customers standardize across environments, develop cloud-native applications, and integrate, automate, secure, and manage complex environments with [award-winning](#) support, training, and consulting services.

f facebook.com/redhatinc
x @RedHat
in linkedin.com/company/red-hat

North America
1 888 REDHAT1
www.redhat.com

**Europe, Middle East,
and Africa**
00800 7334 2835
europe@redhat.com

Asia Pacific
+65 6490 4200
apac@redhat.com

Latin America
+54 11 4329 7300
info-latam@redhat.com