



Smart Integrated Vehicle Area Network (SiVAN) by Northrop Grumman Video Transcript

Today's threatening realities have prompted an explosion of digital-age warfighting technologies. But the rapid adoption and expeditious integration of these technologies has created its own set of challenges...Challenges that unnecessarily add cost and complexity to tactical wheeled vehicles.

While providing many operational advantages, today's modern mission packages use unique wiring harnesses,

displays, and interfaces that require extensive support.

It's why Northrop Grumman has developed SiVAN. The Smart Integrated Vehicle Area Network that resolves these challenges, adds new capabilities, and, ultimately, reduces cost.

SiVAN is a highly survivable information network that ties current disparate technologies together into one integrated infrastructure. An infrastructure that ultimately serves as the foundation for adding all future capabilities.

What makes SiVAN so revolutionary is an open systems architecture that integrates zero configuration standards to create true plug-and-play capability.

It's this modular foundation and unique Z-Node technology that greatly enhances SiVAN's operational benefits,

and reduces cost at key stages within a vehicle's life cycle. Beginning with Development.

SiVAN's advanced technology was designed with simple system integration, man-machine interface, and 'Pit Stop' engineering in mind. Consisting of only a Smart display, an Ethernet cable, and Z-Node device interfaces, SiVAN reduces the bulkiness of current appliqué into one simple package.

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During the Manufacturing process of the lifecycle, SiVAN reduces production costs in several key ways.

By leveraging existing devices and COTS software and hardware.

Eliminating the need for complex processes.

And with fewer components required to build SiVAN, the result is fewer hardware elements.

This all translates into Cost and SwaP savings, making it practical to immediately outfit all tactical ground vehicles.

Once dispersed throughout the fleet, simplified training allows new users to be operational in a matter of days, not weeks.

Common displays mimic familiar components already in use today; embedded training is easily accessible for plugged in devices; and

Once trained on one-system, users can operate across multiple platform types.

In the field, no matter what the environment, SiVAN greatly improves the warfighter's operational readiness and network-centric capabilities.

Customizable, shared displays keep information accessible within the user's allowed clearance level and they also let users view multiple devices on one screen.

Resource sharing is a major benefit. SiVAN provides a self-forming information link between devices, local area dismounts, UAVs, and any other platform allowing them all to seamlessly interoperate.

If damaged, SiVAN's self-healing functionality reforms the information link, which greatly increases survivability.

As the next mission evolves, SiVAN increases the adaptability of the fleet by serving as the integration infrastructure for new devices. This means the need for costly A-kit modifications are reduced greatly and future capabilities can be fielded rapidly.

Finally, SiVAN delivers major benefits in the Support aspect of the vehicle lifecycle. RAM is improved through the Z-Node device interface.

SiVAN's BIT constantly monitors, stores and reports Automotive Vetronics and device performance data.

The modular architecture allows for easy LRU replacement reducing down time and labor while allowing the depot to maintain timely configuration control.

Ultimately, the commonality across all fleets and services will allow the technology refresh to happen simultaneously and joint cost sharing between services can realistically take place.

As this era of persistent conflict continues, so will the ever-increasing growth rate of new digital-age warfighting technologies. Without a solid foundation to integrate and network these technologies more challenges will surely arise.

It's why Northrop Grumman's SiVAN is a timely solution for the fleet of mission critical tactical wheeled vehicles. SiVAN ties together current and future technologies to benefit the warfighters and reduces cost throughout the total life cycle of every vehicle.