Intelligence on the Edge

Brian Anderson, Vice President of Marketing, Solutions and Services, Sierra Wireless

The machine-to-machine (M2M) space continues to expand rapidly, with businesses in the transportation, energy, industrial automation, and enterprise segments seeking to track and monitor their assets, automate their data collection and management, and maintain mission critical equipment as cost-efficiently as possible.

Most of these businesses are not wireless or M2M experts, and Sierra Wireless has long realized a need to make the integration and support of the wireless communications into our customers' deployments as simple as possible. Based on this, the company has offered ALEOS embedded intelligence in its AirLink wireless routers and gateways for more than a decade. ALEOS simplifies the integration, installation, operation, and maintenance of any wireless data solution and provides the "always on" and "always aware" connection management required for mission critical applications.

ALEOS contains over 500 configurable parameters, making it a powerful tool that supports a wide variety of specific applications in various segments. It serves as a solid foundation for the evolution of our product line to enable even more customization and management options for our customers. Today we are introducing the ALEOS Application Framework, which brings programmability to AirLink® wireless gateways and integrates them with the Sierra Wireless AirVantage™ M2M Cloud Platform.

ALEOS Application Framework accelerates and simplifies M2M application development, with an integrated development environment, feature-rich libraries, and set of tools that can be used to develop custom machine-to-machine (M2M) applications on top of the ALEOS embedded intelligence platform. It enables our customers to run their own applications directly on the AirLink GX400 and GX440 wireless gateways, eliminating the need to use an external unit to perform logic functions, so that there are fewer components to buy, deploy, integrate, and manage.

What's more, because it's built on the proven ALEOS embedded intelligence platform, the ALEOS Application Framework can install highly specialized intelligence into the AirLink GX devices. For example, these devices can now be programmed to sort and prioritize data at the device level before transmitting it back to the servers, reducing network access costs. This ability for developers using AirLink® wireless gateways to integrate this "intelligence on the edge" is key to achieving more efficient, cost-effective deployment and operation of M2M solutions.

Integrated with AirVantage for comprehensive remote management

The ALEOS Application Framework unlocks the full power of the AirVantage M2M Cloud Platform for our AirLink GX customers for the first time. The AirVantage M2M Cloud Platform includes comprehensive applications to manage cellular subscriptions, communications devices and their attached assets (such as components in machines, telemetric devices in automobiles, and monitoring devices in a home or office); a powerful set of M2M application development tools; and a web services application programming interface (API).

Developers can use the ALEOS Application Framework to send selected business data to AirVantage, speeding the development of customer-facing applications, web and mobile. In addition, AirVantage manages the deployment of ALEOS applications, allowing software updates to be made to the entire fleet of gateways worldwide thorough a simple user interface.

Saving customers money and time

To date, the feedback from the industry has been encouraging and we're pleased to hear comments such as the one from Craig Linder, Product Manager, GetWireless, who said: "By allowing the migration of customer specific, auxiliary key functionality into the AirLink gateway in a cost-effective, straightforward manner, Sierra Wireless is affording customers a previously unrealizable level of integration and cost savings. Functionality that may have previously required a completely separate piece of hardware can now be pulled into the AirLink device at a fraction of the cost."

For over a decade, Simple Com Tools has leveraged AirLink products as the foundation for its M2M solutions, and the company is proficient in embedded application development as well as ALEOS configuration, having built up an extensive library of embedded applications and utilities. With the ALEOS Application Framework, Simple Com Tools can take its existing code and port it over to run inside the gateway right alongside ALEOS.

"Customers are always trying to drive down the cost of M2M solution components, and we felt that if we could eliminate the need for additional hardware and have embedded data collection applications running inside the gateway itself, we could help them achieve that," said Brian McKeon, President of Simple Com Tools. "The ALEOS Application Framework helps us to deliver on that goal. It provides a platform for writing our own embedded applications that run right inside the wireless gateway."

All in all, these are exciting times in the M2M space and it will be interesting to see how developers leverage these new programming capabilities as they advance the functionality and performance of M2M applications using Sierra Wireless Airlink gateways. If you are interested in downloading the ALEOS Application Framework, learning more about it, or trying out the management services available on the AirVantage M2M Cloud Platform, please visit http://developer.sierrawireless.com/ALEOS_AF [1].

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