



THE BUSINESS APPLICATION – AN IOT SOFTWARE SUITE TO CONNECT PRODUCTS TO CUSTOMERS’ BUSINESS

Solair started in Italy in 2011 with the observation that enterprise software severely lagged behind consumer software in affordability and simplicity. They have worked with customers in many industries including smart cities, manufacturing, industrial machinery and retail. Solair has recently begun to expand to do business mainly in Japan, Germany and the United States.

“There are still many companies that don’t completely understand how to benefit from the potential advantages of connected products and they are looking for ready to use solutions that are quick to implement and bring measurable economic results,” said Martina Casani, Marketing Director, Solair.

With a background in enterprise software, Solair now focuses on addressing business needs through end-to-end IoT solutions including an IoT Platform, a suite of IoT software modules and an IoT Gateway.

“We started on the software side of IoT, but our customers were asking us for help on the hardware side,” said Casani. “We began to integrate an IoT Gateway in addition to software to help our customers from start to finish as they build an IoT application that collects data from the edge and brings it to the cloud.”

THE OPEN SOURCE FRAMEWORK FOR IOT - ECLIPSE KURA

After a long process of looking at several embedded frameworks both commercial and open source, Solair chose Eclipse Kura as the standard framework for their IoT Gateway. The IoT Gateway is designed on top of a low-power, ARM-based Freescale processor and Davide De Cesaris, Technical Project Manager, Solair, said, “Kura is perfect for this kind of embedded application.”



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Eclipse Kura is an open source Java/OSGi-based framework for IoT gateways with APIs that offer access to the underlying hardware, management of network configurations, communication with IoT integration platforms and gateway management.

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Solair developed their IoT Gateway embedded software on top of Kura because its flexibility and interoperability would speed up integration with various customer applications. Kura includes many industrial protocols and can also abstract the physical communication layer which is a great benefit to Solair. They also appreciate the power of the Java Virtual Machine to integrate the security stack with SSL support and encryption protocols.

RESULTS – SPEEDING TIME TO MARKET

Kura allows Solair to easily connect devices at the edge to their cloud platform via the IoT Gateway. They have used the standard Kura bundles to collect data via Modbus, CAN bus and other protocols and have also developed custom bundles for some projects.

For example, Solair monitors UPS data, notifications and alarms for a customer, AEG Power Solutions, and they developed an OSGi/Kura bundle to take

the UPS measurements. They have 1,000 devices to monitor, and they are able to collect all of this data using Kura and the standard SNMP network protocol. All of the data is sent to their business platform through the Solair IoT Gateway to get business intelligence of the critical events in the field.

“The solution gives AEG PS the possibility to activate alarms, manage and optimize programmed

and emergency maintenance, and detect any problem on monitored devices by identifying their geographical location. The customer, on the other hand, can access the UPS data in the field, quickly and through any device wherever it may be in the world. The solution allowed us to solve many issues remotely and to cut field interventions by 38 percent,” says Alessandro Nalbone, Product Manager Data & IT, AEG Power Solutions.

Solair also likes being part of the Eclipse Kura open source community. “We are an active part of the Eclipse community and we see a lot of interest around our projects from personal and business partners,” said De Cesaris. “There are lots of new features in every release and we can share our needs with other important players in the IoT market, which is a great benefit.”

Perhaps the greatest benefit Solair has seen from using Eclipse Kura is ease of use and fast integration for their customer’s IoT projects. “Kura reduces the time to market a great deal for our customers,” said De Cesaris.



Eclipse IoT Project Kura
www.eclipse.org/kura