

PARTNER SOLUTION OVERVIEW

ARUBA AND SOLUM

Success on Display: Deploying Electronic Shelf Labels

NETWORK AS AN IOT PLATFORM

Influencing customer behavior in real-time is a long standing objective of retailers because it directly impacts basket size, sentiment, and loyalty. Long an elusive goal, behavioral impact is now achievable in no small part because of electronic shelf labels (ESLs).

ESLs provide bi-directional interactions between shoppers and back-office real-time pricing, inventory, and advertising engines. Combined with knowledge of location and identity, ESLs allow stores to contextually adapt to, and influence, shopper behavior.

Robust ESL operation is business-critical. Regulations mandate consistency between ESLs and point-of-sale system pricing. Additionally, targeted marketing programs only work if delivered to the right shoppers in the right context. These requirements put a spotlight on the reliability of ESLs and the infrastructure that supports them.

Hardwired ESLs would be prohibitively expensive, both because of the initial cost of pulling cables and rewiring during store churn. Dedicated ESL wireless would also be expensive, and risks interfering with a store's RFID and Wi-Fi infrastructure. Leveraging a store's existing Wi-Fi access points for ESL communications is the most effective solution, however, the critical role of ESLs sets the bar high for the robustness of that wireless network.

Aruba's access points converge front- and back-of-store connectivity needs with high-speed wireless Internet access. With built-in radios for IoT and support for external USB adapters, Aruba access points can serve as platforms for a broad range of IoT devices including ESLs, mobile printing, gunshot detectors, lighting, refrigeration, presence detection, air quality sensors, and asset tracking tags.

ALL-IN-ONE COMMUNICATION PLATFORM

SoluM (originally Samsung Electro-Mechanics), one of the world's largest ESL providers, and Aruba have partnered to ensure that ESLs can be economically, reliably, and securely deployed. The joint solution works in conjunction with the

WHY SOLUM AND ARUBA

- Enhances the shopping experience with interactive tags in shelf, wearable, and article label form factors
- Aruba wireless extends SoluM capabilities to use cases such as smart offices, meeting rooms, table reservations, hospitals, and hotels
- Easily retrofits to Aruba Customers who are actually using Wi-Fi 6 more than .ax for Wi-Fi 5 for .ac to be consistent and Wi-Fi 5 deployments via USB adapter
- Is compatible with current and past solutions from SoluM
- Eliminates the cost of deploying ESL RF gateways with additional PoE equipment and Ethernet cabling
- Simple set-up and adds/moves/changes
- Certified interoperability across Who product portfolios?
- Does this mean that if a customer calls us we escalate to SoluM and vice versa? SoluM and Aruba ensures faster problem resolution to root cause

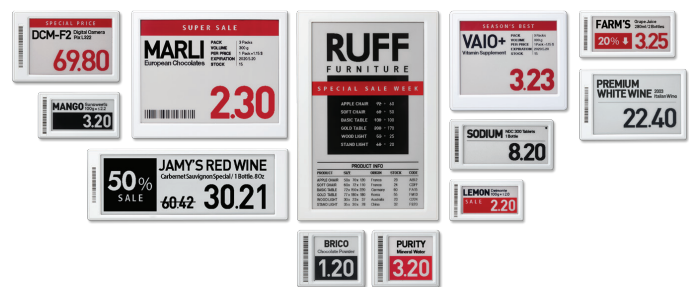


Figure 1. Examples of SoluM electronic shelf labels

Aruba access points, and is designed for applications of all sizes - from branch stores to big box retailers. In addition, the solution can be applicable to various areas such as desk tags for smart offices, name tags for lockers, signage for meeting rooms and so on.

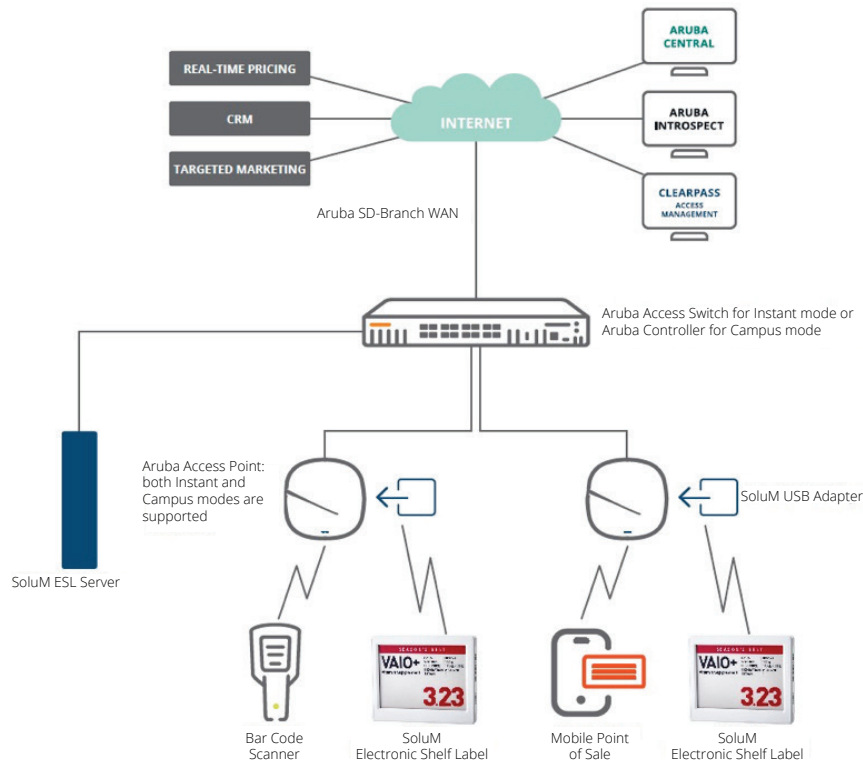


Figure 2. Representative SoluM/Aruba Joint Solution

Aruba's networks have been field-proven in the most demanding retail deployments, and deliver the robustness and reliability needed for business-critical ESL, data, locating, voice, video, and IoT services. Network security is best-in-class and PCI compliant.

From the distinct characteristic that the SoluM system and Aruba Access point operate independently customers can assign an independent IP address to the SoluM USB GW by using a DHCP server or assigning a static IP address. This enables customers to add, move and change SoluM USB GWs to any access points without additional configuration.

In addition, Aruba access points support two functions.

- One is to forcibly reboot the SoluM USB GW for solving what is an unintended problem?
- The other is to show the IP address of the SoluM USB GW, which is very useful for debugging.

UNIQUE VALUE PROPOSITIONS

Once deployed, the Aruba and SoluM system can be remotely updated, and will communicate in real-time with pricing, CRM, marketing, and loyalty applications, without physically accessing the labels. Key benefits include:

- Pricing automation that allows tags to be updated in seconds

- Interactive tags include lights that change display automatically to better connect with shoppers and deliver targeted messaging
- Near-field communications allows for new services such as point-of-product purchase
- Tags can identify out-of-date inventory to improve store efficiency and regulatory compliance

CERTIFIED INTEROPERABILITY

We have taken the guesswork out of deployments by certifying the interoperability of SoluM ESLs with Aruba infrastructure. Set-up is also a breeze. If Ethernet over USB on the Aruba system is enabled, the SoluM USB GW can be used, managed and controlled as the original ESL RF gateway. Customers who have experience with SoluM products can easily use the new solution without any further knowledge or training. In addition, joint deployments go in faster and are easier to maintain.

SUMMARY

Aruba's secure wireless platform is the ideal way to support electronic shelf labels, and deliver the benefits of an intelligent store, in retail applications of any size.

Additionally, the joint solution can be universally applicable to any places such as smart offices, meeting rooms and hotels. Contact your local sales representative to see how Aruba and SoluM deliver the most cost-effective, centrally managed ESL solutions in the industry

For more information on Aruba wireless, please visit:
<https://www.arubanetworks.com/products/networking/access-points>

For more information on SoluM, please visit:
<http://www.solu-m.com/eng/product/esl>.



SPECIFICATION OF SOLUM USB GW

Dimensions (mm)	30*200*11
Weight (g)	50
Power voltage	5V, 0.5A (2.5W, Over USB Port)
Coverage	Radius 25m (LOS)
# of supported labels	Max. 2000
Communication Protocol	Proprietary
Certification	KC, FCC, CE, ISED
Temperature (°C)	0 ~ 40