ESL SOLUTON INTRODUCTIONS

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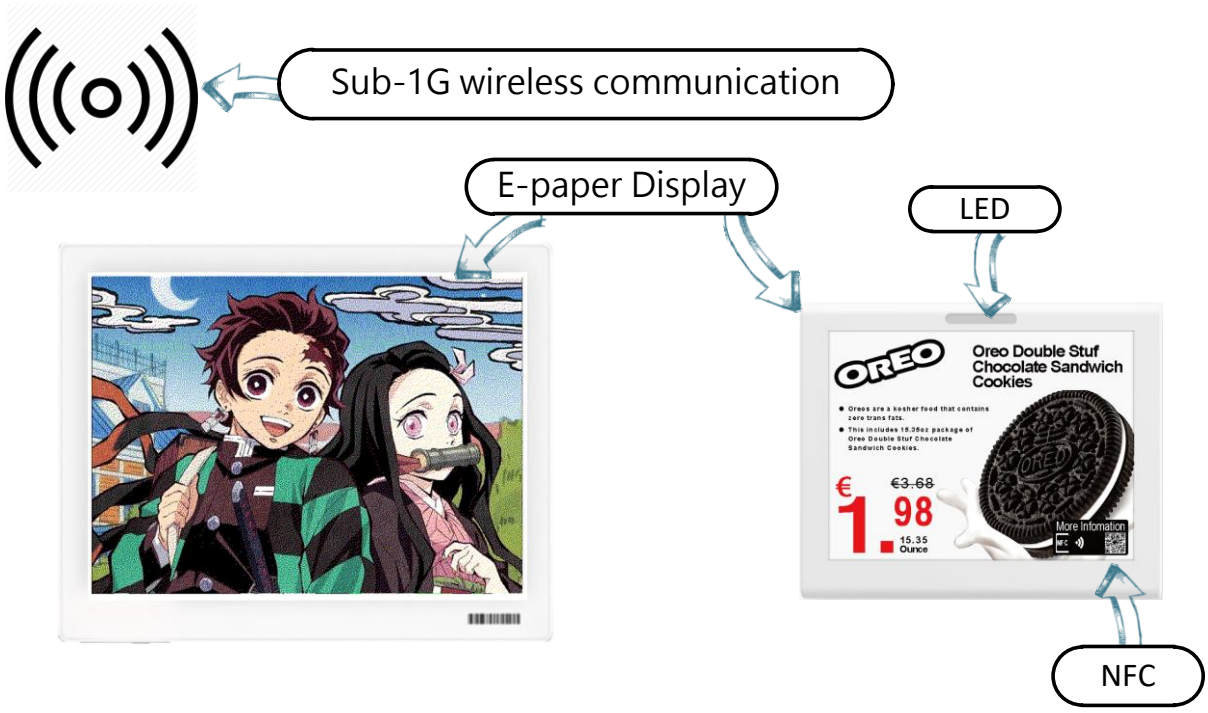
What is Electronic Shelf Label



The best way to replace traditional price tag

E-paper display	• Wide view angle • Ease of reading • Low power consumption
LED	• Locate product or ESL • Highlight special event
NFC	• Product traceability • Customer self-checkout
Wireless Communication	• Less infrastructure investments • More flexibilities

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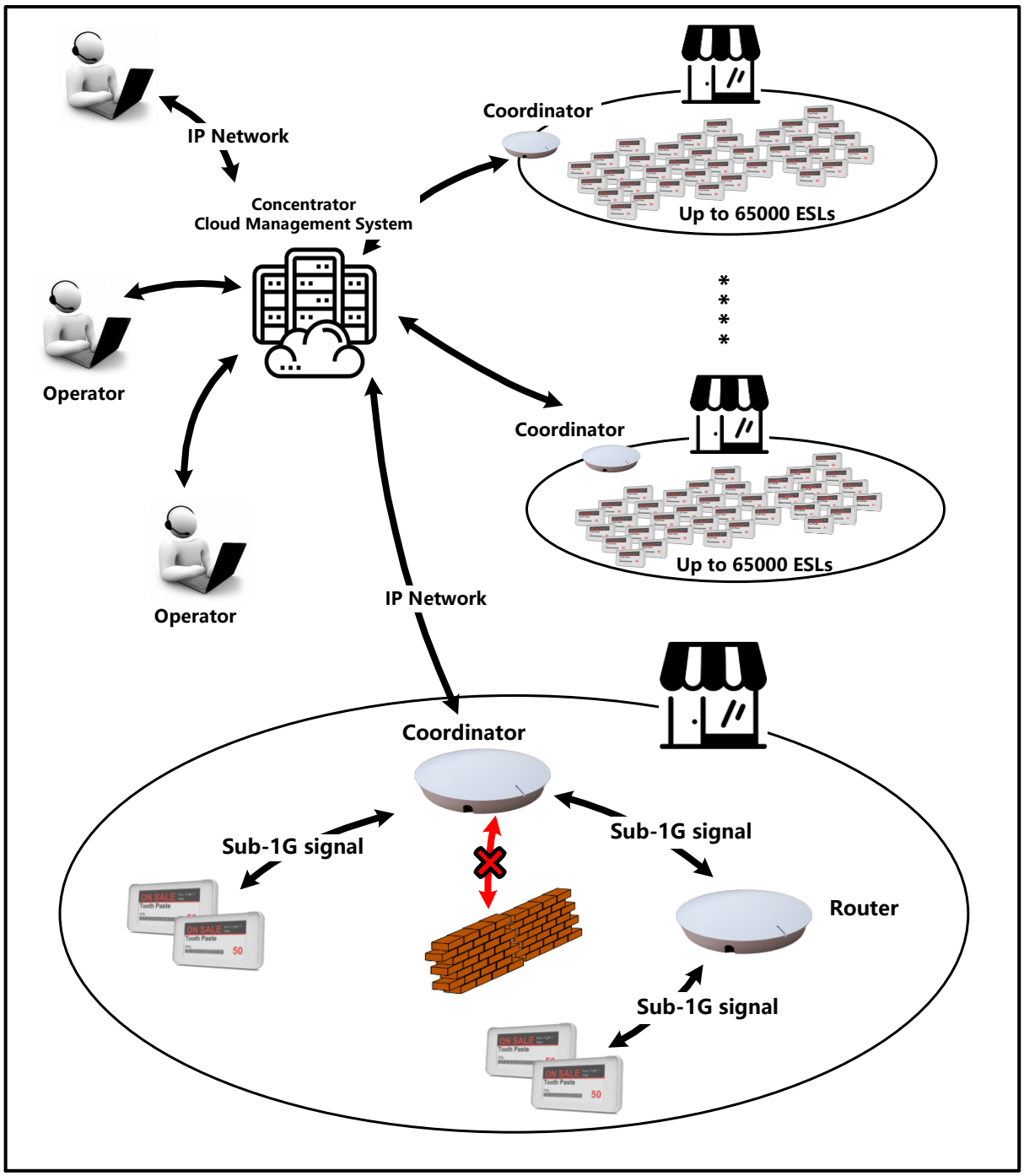
Solution Architecture



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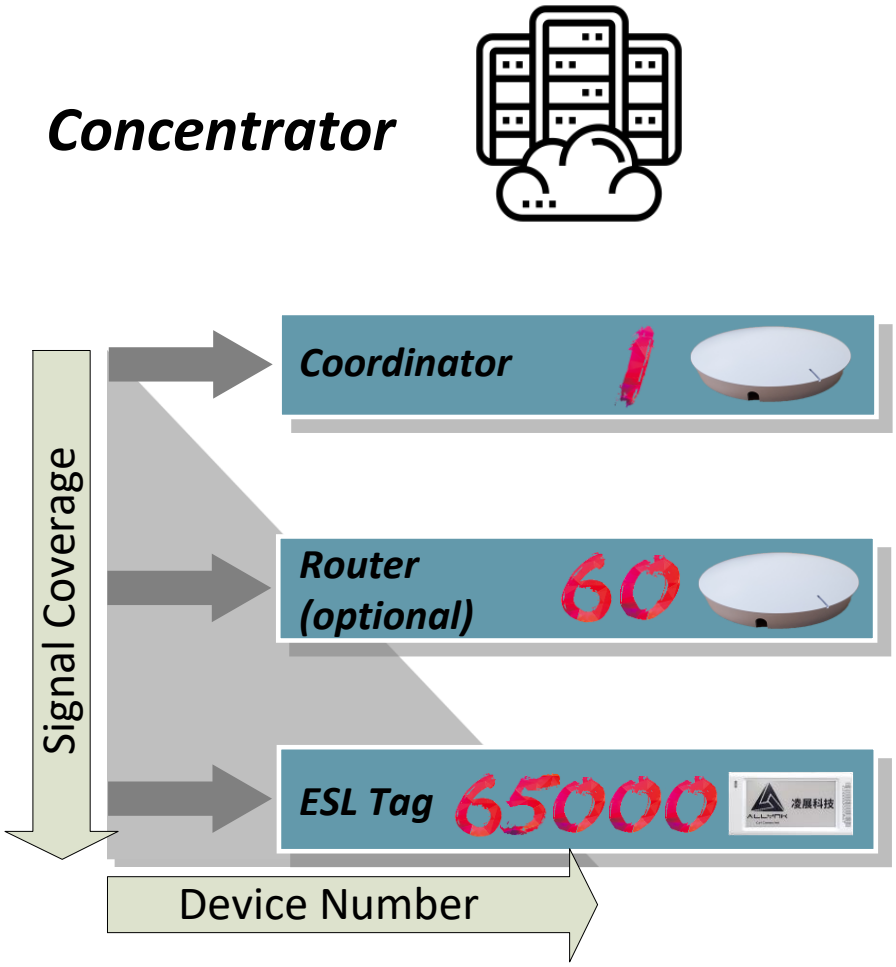
Role in Solution



Concentrator	• Manage Coordinators via IP network • Provide management interface to operator
Coordinator	• Receive command from Concentrator • Manage Routers and ESLs via sub-1g wireless communication • Mandatory device in each ESL network
Router	• Forward sub-1g signal to ESL or Coordinator • Optional device in each ESL network
ESL	• Receive data from Coordinator via Sub-1g wireless communication

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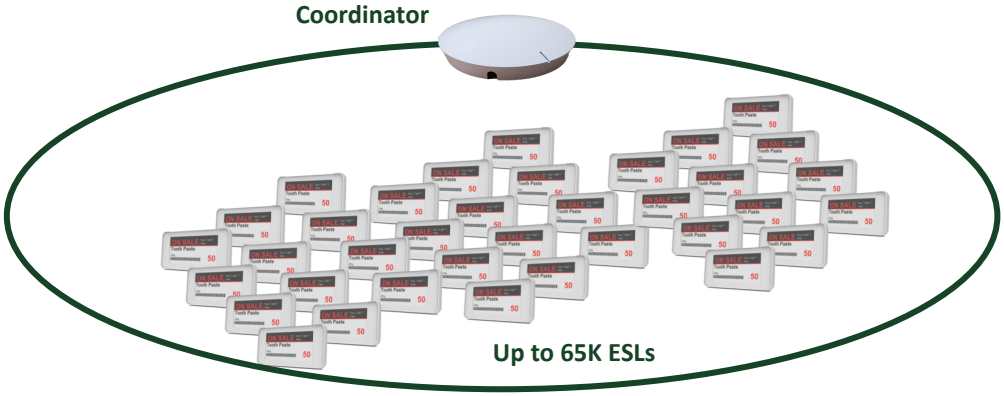
Solution Highlights

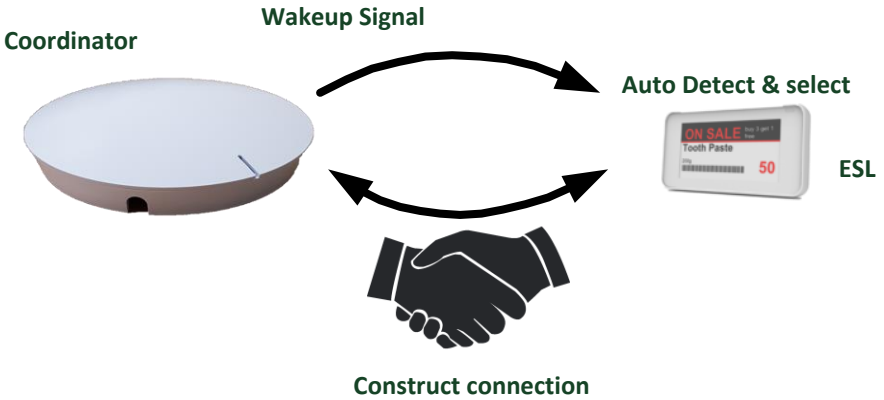
Huge Network Capacity

Support up to 65000 ESL tags in a network



Self-Constructed Network

Device will join to the network automatically without hassles



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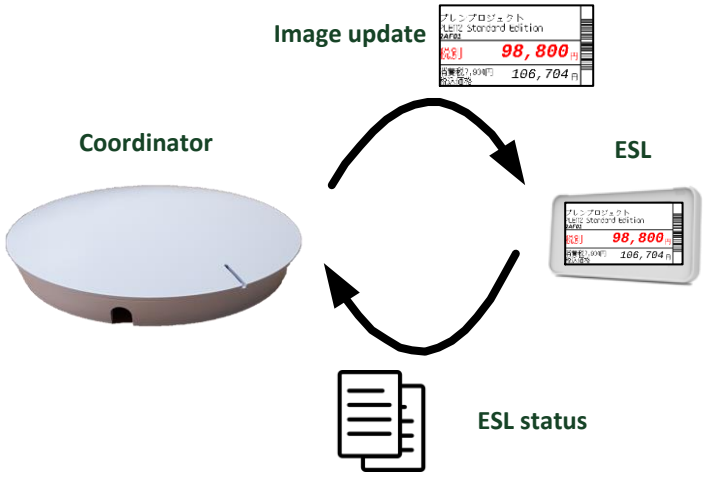
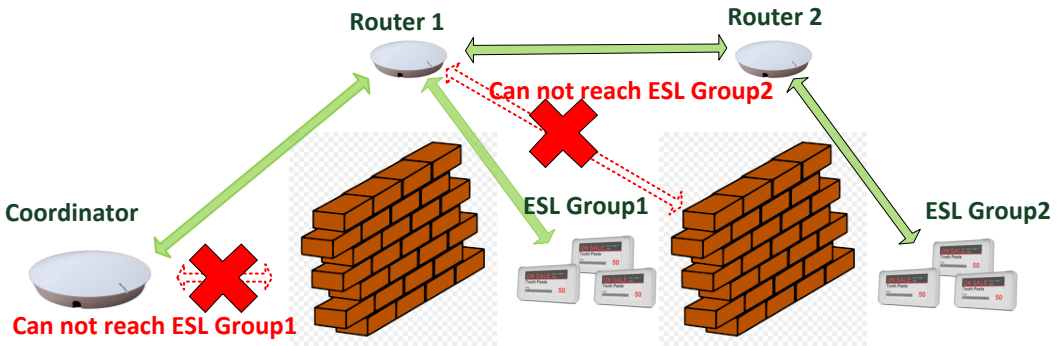
Symmetric Bi-directional Tx

Ease of pushing data to tag or retrieving statistics from tag



Signal Extension

Convey signal and bypass dead corners



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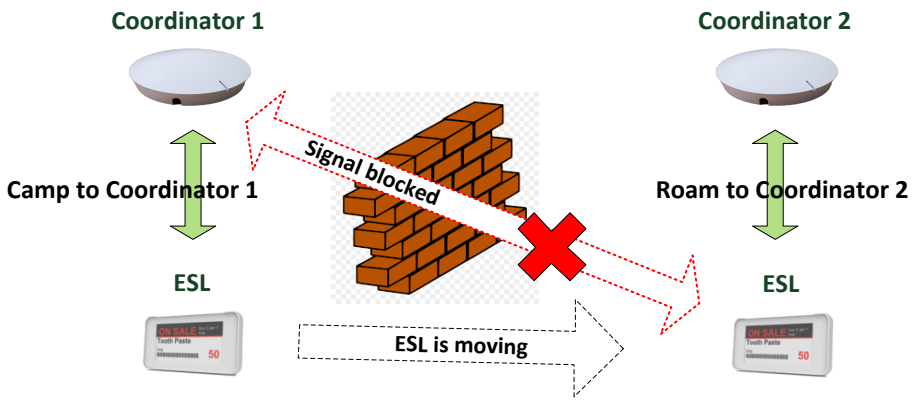
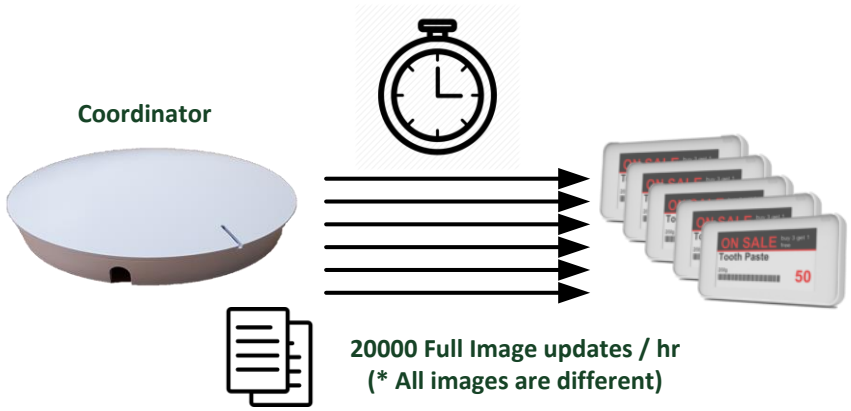
Fast Roaming

Device can roam between authorized networks with short latency



Fast Image Update

More than 20000 full image updates per hour



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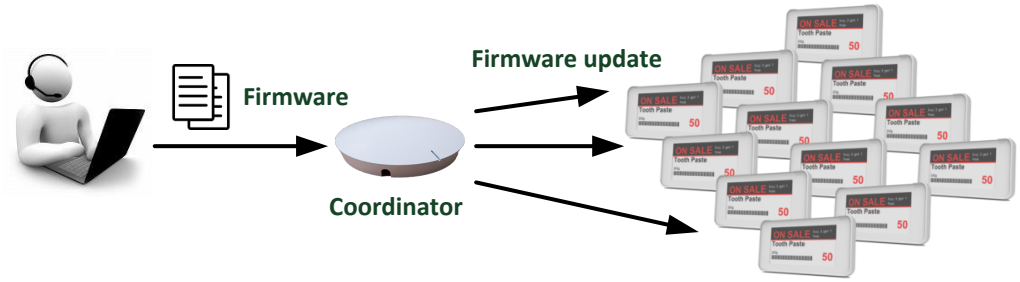
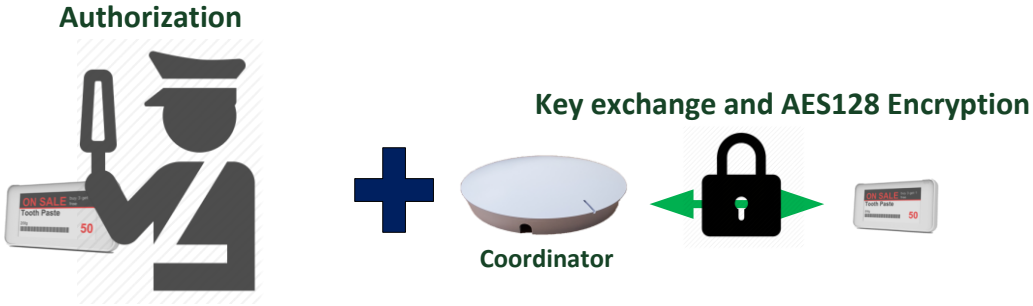
Smart Firmware Upgrade

Upgrade device's firmware wirelessly (65K ESLs in 10 mins)



Solid Security Mechanism

Device authorization and data encryption with dynamic key exchange keep customer data safe



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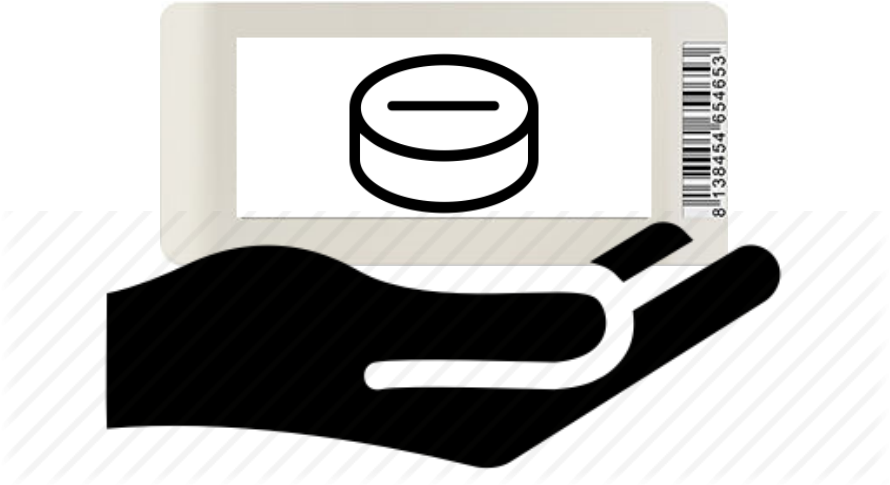
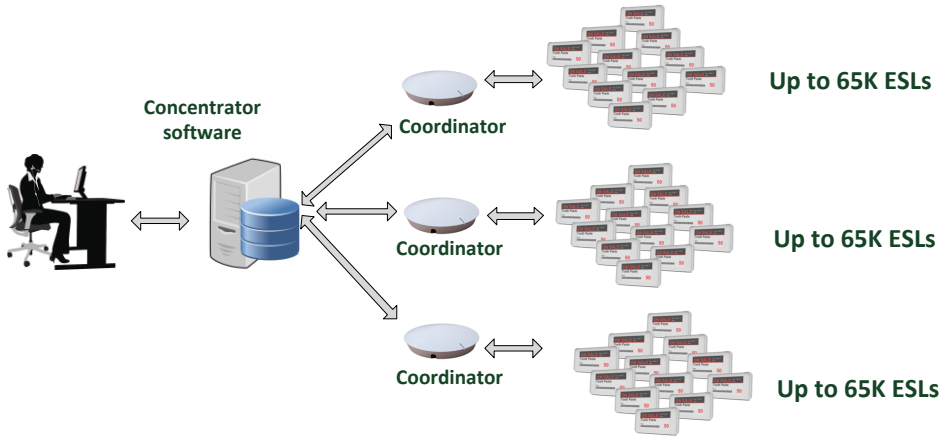
Extremely Long Battery Life

No battery replacement in 5 years (CR2450*1)



Full Function Management Software

Concentrator software can rule all coordinators and also provides universal RPC interface to integrate with customer's system



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Product Specifications

Model Name	AKC26V	AKC42V
Dimensions	83 x 41 x 11.6 mm	105.3 x 94.5 x 12.3 mm
Display	2.66" Epaper (296x128 pixels) Black/White/Red	4.2" Epaper (400x300 pixels) Black/White/Red
Transmission range	~30m indoors	~30m indoors
Connectivity	Sub-1G wireless (902~928Mhz) NFC	Sub-1G wireless (902~928Mhz) NFC
I/O	LED x 1	LED x 1
Power supply	CR2450 x 2	CR2450 x 2
Battery life	7 years (2 updates/day)	5 years (2 updates/day)
Security	Device authentication AES128 + key exchange	Device authentication AES128 + key exchange

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Model Name	AKE58V	AKC58V
Dimensions	135.4 x 109.5 x 8.5 mm	135.4 x 109.5 x 8.5 mm
Display Size	5.65" 7-Color Epaper (600 x 448 pixels)	5.65" 3-Color Epaper (600 x 448 pixels)
Display Color	Black / White / Green / Blue / Red / Yellow / Orange	Black / White / Red
Transmission range	~30m indoors	~30m indoors
Connectivity	Sub-1G wireless (902~928Mhz) NFC	Sub-1G wireless (902~928Mhz) NFC
Power supply	CR2430 x 4	CR2430 x 4
Battery life	5 years (2 updates/day)	5 years (2 updates/day)
Security	Device authentication AES128 + key exchange	Device authentication AES128 + key exchange

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Model Name	CO900D	RT900D
Key Feature	Network management	Signal forwarding
Dimensions	160 x 160 x 20 mm	160 x 160 x 20 mm
Transmission range	~30m indoors	~30m indoors
Connectivity	Sub-1G wireless (902~928Mhz) 10/100Mbps Ethernet	Sub-1G wireless (902~928Mhz)
I/O	LED x 3	LED x 3
Power supply	POE / MicroUSB	POE / MicroUSB
Security	Device authentication AES128 + key exchange	Device authentication AES128 + key exchange

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Model Name	CONCENTRATOR
Descriptions	Site management Software
Features	• For both Windows and Linux platform • Cloud-Ready • Manage multiple networks • Device & Application data management • Data-to-image generation engine • RPC Interface for integration • Support C# / Java / Node.JS / Ruby /Go / C++...

FCC Warning:
Please take attention that changes or modification not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.
This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:
(1)This device may not cause harmful interference, and
(2)This device must accept any interference received, including interference that may cause undesired operation.

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

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