WIRELESS SOLUTION FOR SMART CITY

2019
ACCTON GROUP

Design & Manufacturing
Taiwan, Since 1988

Web Hosting for SMB
Taiwan, Since 2000

Design & Manufacturing
Taiwan, Since 1988

Manufacturing
China, Since 2005

Home Networking
Worldwide, Since 1997

DC, Carrier & Enterprise
Networking
Worldwide, Since 2004

Cloud-based
Wireless
Worldwide, Since 2013

Design & Manufacturing
Taiwan, Since 2010

E- platform for
ccharitable works
Taiwan, Since 2001

Art Foundation
Taiwan, Since 2000
OVERVIEW

GLOBAL PRESENCE
3300 worldwide staff

HEADQUARTERS
Hsinchu, Taiwan

MANUFACTURING
Shenzhen, China:
• 18 SMT lines

Hsinchu, Taiwan (TAA-compliant):
• 3 high-speed SMT lines

MANUFACTURING
Shenzhen, China:
• 18 SMT lines

Hsinchu, Taiwan (TAA-compliant):
• 3 high-speed SMT lines

R&D
Development & architecture centers in Taiwan, China, & USA

CAPITAL
• USD 180M
• Revenue: USD 912M in 2016
• Market Value: USD 832M

IPO
Taiwan 1995 (TSE: 2345)
Established Feb 1988
COMPLETED CONTROLLER-BASED SOLUTION

We Offer:

- AP Management + Gateway Function
- Multi-Tenancy & Managed Services
- Completed User Access Control
- Hotspot & Billing Platform
- AP Performance Optimization
- Customer Insights & Data Collection
Complete Cloud Based Solution

Anytime / Anywhere Access

Indoor/Outdoor WiFi

Wired Access

Add-on Apps and Services

60GHz PTP/PTMP
PRODUCT OVERVIEW

Wireless Access Point
- Indoor AP
  - ECW100
  - ECW5210-L
  - ECW5211-L
  - ECW5410-L
- Outdoor AP
  - ECWO5210-L
  - ECWO5211-L
  - ECWO5212-L
  - ECWO5213-L

Wireless LAN Controller
- EWS101
- EWS5203
- EWS5204
- EWS5207
- EWS1000

Wireless Hotspot Gateway
- ECH502

Ticket Printer
- EC-PP200
# WIRELESS LAN CONTROLLER

<table>
<thead>
<tr>
<th>Model Number</th>
<th>EWS101</th>
<th>EWS5203</th>
<th>EWS5204</th>
<th>EWS5207</th>
<th>EWS1000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Managed APs</td>
<td>50</td>
<td>300</td>
<td>1,000</td>
<td>3,000</td>
<td>10,000</td>
</tr>
<tr>
<td>Local Accounts</td>
<td>2,000</td>
<td>10,000</td>
<td>30,000</td>
<td>50,000</td>
<td>120,000</td>
</tr>
<tr>
<td>On-Demand Accounts</td>
<td>2,000</td>
<td>10,000</td>
<td>30,000</td>
<td>50,000</td>
<td>120,000</td>
</tr>
<tr>
<td>Max. Number of Online Users</td>
<td>200</td>
<td>3,000</td>
<td>10,000</td>
<td>30,000</td>
<td>100,000</td>
</tr>
<tr>
<td>Form Factor</td>
<td>7.5&quot; Desktop</td>
<td>19&quot; Rack-mount (1U)</td>
<td>19&quot; Rack-mount (1U)</td>
<td>19&quot; Rack-mount (2U)</td>
<td>19&quot; Rack-mount (2U)</td>
</tr>
<tr>
<td>WAN Ports</td>
<td>1 x GbE</td>
<td>2 x GbE or 2 x 1G SFP</td>
<td>2 x GbE ; 2 x 1G SFP</td>
<td>2 x GbE ; 2 x 10G SFP+</td>
<td>2 x GbE ; 2 x 10G SFP+</td>
</tr>
<tr>
<td>LAN Ports</td>
<td>4 x GbE</td>
<td>8 x GbE</td>
<td>6 x GbE ; 2 x 1G SFP</td>
<td>6 x GbE ; 2 x 10G SFP+</td>
<td>6 x GbE ; 2 x 10G SFP+</td>
</tr>
<tr>
<td>High Availability</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Power</td>
<td>DC Input: 12V / 1A</td>
<td>Input: 100-240 VAC</td>
<td>Input: 100-240 VAC</td>
<td>Input: 100-240 VAC</td>
<td>Input: 100-240 VAC</td>
</tr>
<tr>
<td>LED Indicator</td>
<td>Power, Status</td>
<td>Power, Status</td>
<td>Power, HDD</td>
<td>Power, HDD, System Standby, Power Error</td>
<td>Power, HDD, System Standby, Power Error</td>
</tr>
<tr>
<td>Buttons</td>
<td>Restart / Reset</td>
<td>Restart / Reset</td>
<td>Restart</td>
<td>Restart</td>
<td>Restart</td>
</tr>
<tr>
<td>LCD Display</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Dimensions (W x D x H; cm)</td>
<td>19.0 x 13.3 x 3.3</td>
<td>44.0 x 28.0 x 4.4</td>
<td>43.8 x 30.0 x 4.4</td>
<td>43.8 x 47.0 x 8.8</td>
<td>43.8 x 47.0 x 8.8</td>
</tr>
<tr>
<td>Weight</td>
<td>0.56 kg</td>
<td>2.6 kg</td>
<td>5.2 kg</td>
<td>19.00 kg</td>
<td>19.00 kg</td>
</tr>
</tbody>
</table>

Note: Capacity limits may vary depending on configuration parameters.
## INDOOR ACCESS POINT

<table>
<thead>
<tr>
<th>Model Number</th>
<th>ECW100</th>
<th>ECW5210-L</th>
<th>ECW5211-L</th>
<th>ECW5410-L</th>
<th>EAP100</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Wi-Fi</strong></td>
<td>11ac</td>
<td>11ac</td>
<td>11ac wave2</td>
<td>11ac wave2</td>
<td>11ac wave2</td>
</tr>
<tr>
<td><strong>Radios</strong></td>
<td>2.4 GHz, 5 GHz</td>
<td>2.4 GHz, 5 GHz</td>
<td>2.4 GHz, 5 GHz, BLE</td>
<td>2.4 GHz, 5 GHz, BLE</td>
<td>2.4 GHz, 5 GHz, BLE, LTE (PCI-E; Optional)</td>
</tr>
<tr>
<td><strong>MIMO</strong></td>
<td>2x2:2</td>
<td>3x3:3</td>
<td>2x2:2</td>
<td>4x4:4</td>
<td>2x2:2</td>
</tr>
<tr>
<td><strong>PoE Specification</strong></td>
<td>802.3af</td>
<td>802.3at</td>
<td>802.3af</td>
<td>802.3at</td>
<td>802.3af</td>
</tr>
<tr>
<td><strong>Uplink Ports</strong></td>
<td>1 x GbE (PoE)</td>
<td>1 x GbE (PoE)</td>
<td>1 x GbE (PoE)</td>
<td>1 x GbE (PoE)</td>
<td>1 x GbE (PoE)</td>
</tr>
<tr>
<td><strong>LAN Ports</strong></td>
<td>1 x GbE</td>
<td>--</td>
<td>1 x GbE</td>
<td>1 x GbE</td>
<td>1 x GbE</td>
</tr>
<tr>
<td><strong>Other Ports</strong></td>
<td>1 x Pass-Through RJ11</td>
<td>--</td>
<td>1 x USB 2.0</td>
<td>1 x RJ45 Console Port</td>
<td>1 x USB 2.0</td>
</tr>
<tr>
<td><strong>Antenna</strong></td>
<td>Built-in Antenna</td>
<td>Built-in Antenna</td>
<td>Built-in Antenna</td>
<td>Built-in Antenna</td>
<td>Built-in Antenna</td>
</tr>
<tr>
<td><strong>ESSIDs</strong></td>
<td>16</td>
<td>32</td>
<td>32</td>
<td>32</td>
<td>32</td>
</tr>
<tr>
<td><strong>Max. Power Consumption</strong></td>
<td>8W</td>
<td>17W</td>
<td>9W</td>
<td>22.5W</td>
<td>9W</td>
</tr>
<tr>
<td><strong>Mounting</strong></td>
<td>In-Wall</td>
<td>Wall / Ceiling Mount</td>
<td>Wall / Ceiling Mount</td>
<td>Wall / Ceiling Mount</td>
<td>Wall / Ceiling Mount</td>
</tr>
<tr>
<td><strong>IP Rating</strong></td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>IP55</td>
</tr>
<tr>
<td><strong>Dimensions</strong> (H x W x D; cm)</td>
<td>US: 11.5 x 7.0 x 4.0</td>
<td>EU: 8.5 x 8.5 x 4.0</td>
<td>18.0 x 18.0 x 4.4</td>
<td>14.7 x 14.7 x 3.5</td>
<td>19.0 x 19.0 x 3.3</td>
</tr>
<tr>
<td><strong>Weight</strong></td>
<td>0.12 kg</td>
<td>0.61 kg</td>
<td>0.36 kg</td>
<td>0.61 kg</td>
<td>0.42 kg</td>
</tr>
</tbody>
</table>
## OUTDOOR ACCESS POINT

<table>
<thead>
<tr>
<th>Model Number</th>
<th>ECW05210-L</th>
<th>ECW05211-L</th>
<th>ECW05212-L</th>
<th>ECW05213-L</th>
<th>OAP100</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Wi-Fi</strong></td>
<td>11ac</td>
<td>11ac</td>
<td>11ac</td>
<td>11ac</td>
<td>11ac wave2</td>
</tr>
<tr>
<td><strong>Radios</strong></td>
<td>2.4 GHz, 5 GHz</td>
<td>2.4 GHz, 5 GHz, BLE, GPS</td>
<td>2.4 GHz, 5 GHz, BLE, GPS</td>
<td>2.4 GHz, 5 GHz, BLE, GPS, LTE (PCI-E; Optional)</td>
<td>2.4 GHz, 5 GHz, BLE, GPS, LTE (PCI-E; Optional)</td>
</tr>
<tr>
<td><strong>MIMO</strong></td>
<td>3x3:3</td>
<td>2x2:2</td>
<td>2x2:2</td>
<td>2x2:2</td>
<td>2x2:2</td>
</tr>
<tr>
<td><strong>PoE Specification</strong></td>
<td>802.3at</td>
<td>802.3at</td>
<td>802.3at</td>
<td>802.3at</td>
<td>802.3at</td>
</tr>
<tr>
<td><strong>Uplink Ports</strong></td>
<td>1 x GbE (PoE)</td>
<td>1 x GbE (PoE)</td>
<td>1 x GbE (PoE)</td>
<td>1 x GbE (PoE)</td>
<td>1 x GbE (PoE)</td>
</tr>
<tr>
<td><strong>LAN Ports</strong></td>
<td>1 x GbE</td>
<td>1 x GbE</td>
<td>1 x GbE</td>
<td>1 x GbE</td>
<td>1 x GbE</td>
</tr>
<tr>
<td><strong>Other Ports</strong></td>
<td>1 x RJ45 Console Port / 1 x Vent</td>
<td>1 x Vent</td>
<td>1 x Vent</td>
<td>1 x Vent</td>
<td>1 x RJ45 Console Port / 1 x Vent</td>
</tr>
<tr>
<td><strong>Antenna</strong></td>
<td>6 x External N-type connectors</td>
<td>4 x External N-type Connectors</td>
<td>2.4 GHz: 2 x Built-in Antenna for BLE</td>
<td>2.4 GHz: 2 x Built-in Antenna for BLE</td>
<td>Option I: 2 x Built-in Omni (2.4GHz), 2 x Azimuth &amp; Elevation 30° (5GHz) Option II: 4 x Azimuth 90° &amp; Elevation 30° (2 x 2.4GHz, 2 x 5GHz) 2 x External N-Type Built-in Antenna for BLE Built-in Antenna for GPS Female Connectors on OAP100 (LTE)</td>
</tr>
<tr>
<td><strong>ESSIDs</strong></td>
<td>32</td>
<td>32</td>
<td>32</td>
<td>32</td>
<td>32</td>
</tr>
<tr>
<td><strong>Max. Power Consumption</strong></td>
<td>22W</td>
<td>20W</td>
<td>16W</td>
<td>20W</td>
<td>27.1W</td>
</tr>
<tr>
<td><strong>Mounting</strong></td>
<td>Pole Mount</td>
<td>Pole mount</td>
<td>Pole mount</td>
<td>Pole mount</td>
<td>Pole mount</td>
</tr>
<tr>
<td><strong>IP Rating</strong></td>
<td>IP68</td>
<td>IP68</td>
<td>IP68</td>
<td>IP68</td>
<td>IP68</td>
</tr>
<tr>
<td><strong>Dimensions</strong> (H x W x D; cm)</td>
<td>25.0 x 20.0 x 7.4</td>
<td>25.0 x 20.0 x 8.0</td>
<td>16.3 x 16.3 x 4.7</td>
<td>25.0 x 20.0 x 8.0</td>
<td>45.0 x 23.0 x 7.0</td>
</tr>
<tr>
<td><strong>Weight</strong></td>
<td>2.80 kg</td>
<td>1.49 kg</td>
<td>0.35 kg</td>
<td>1.23 kg</td>
<td>2.10 kg</td>
</tr>
</tbody>
</table>

**Wi-Fi**

- **ECW05210-L**: 11ac
- **ECW05211-L**: 11ac wave2
- **ECW05212-L**: 11ac
- **ECW05213-L**: 11ac wave2
- **OAP100**: 11ac wave2

**Radios**

- **ECW05210-L, ECW05211-L**: 2.4 GHz, 5 GHz, BLE, GPS
- **ECW05212-L**: 2.4 GHz, 5 GHz, BLE, GPS
- **ECW05213-L**: 2.4 GHz, 5 GHz, BLE, GPS, LTE (PCI-E; Optional)
- **OAP100**: 2.4 GHz, 5 GHz, BLE, GPS, LTE (PCI-E; Optional)

**MIMO**

- **ECW05210-L, ECW05211-L**: 3x3:3
- **ECW05212-L**: 2x2:2
- **ECW05213-L**: 2x2:2
- **OAP100**: 2x2:2

**PoE Specification**

- **ECW05210-L, ECW05211-L**: 802.3at
- **ECW05212-L**: 802.3at
- **ECW05213-L**: 802.3at
- **OAP100**: 802.3at

**Uplink Ports**

- **ECW05210-L**: 1 x GbE (PoE)
- **ECW05211-L**: 1 x GbE (PoE)
- **ECW05212-L**: 1 x GbE (PoE)
- **ECW05213-L**: 1 x GbE (PoE)
- **OAP100**: 1 x GbE (PoE)

**LAN Ports**

- **ECW05210-L, ECW05211-L**: 1 x GbE
- **ECW05212-L**: 1 x GbE
- **ECW05213-L**: 1 x GbE
- **OAP100**: 1 x GbE

**Other Ports**

- **ECW05210-L, ECW05211-L**: 1 x RJ45 Console Port / 1 x Vent
- **ECW05212-L**: 1 x Vent
- **ECW05213-L**: 1 x Vent
- **OAP100**: 1 x RJ45 Console Port / 1 x Vent

**Antenna**

- **ECW05210-L, ECW05211-L**: 6 x External N-type connectors
- **ECW05212-L**: 4 x External N-type Connectors
- **ECW05213-L**: 2.4 GHz: 2 x Built-in Antenna for BLE
- **OAP100**: 2.4 GHz: 2 x Built-in Antenna for BLE

**ESSIDs**

- **ECW05210-L, ECW05211-L, ECW05212-L, ECW05213-L**: 32
- **OAP100**: 32

**Max. Power Consumption**

- **ECW05210-L**: 22W
- **ECW05211-L**: 20W
- **ECW05212-L**: 16W
- **ECW05213-L**: 20W
- **OAP100**: 27.1W

**Mounting**

- **ECW05210-L, ECW05211-L**: Pole Mount
- **ECW05212-L, ECW05213-L, OAP100**: Pole mount

**IP Rating**

- **ECW05210-L, ECW05211-L, ECW05212-L, ECW05213-L**: IP68
- **OAP100**: IP68

**Dimensions** (H x W x D; cm)

- **ECW05210-L, ECW05211-L**: 25.0 x 20.0 x 7.4
- **ECW05212-L**: 25.0 x 20.0 x 8.0
- **ECW05213-L**: 16.3 x 16.3 x 4.7
- **OAP100**: 25.0 x 20.0 x 8.0

**Weight**

- **ECW05210-L, ECW05211-L**: 2.80 kg
- **ECW05212-L**: 1.49 kg
- **ECW05213-L**: 0.35 kg
- **OAP100**: 1.23 kg

**Weight**

- **OAP100**: 2.10 kg
### HOTSPOT GATEWAY & TICKETING

<table>
<thead>
<tr>
<th>Model Number</th>
<th>ECH502</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wireless Standard</td>
<td>11ac wave2</td>
</tr>
<tr>
<td>Radios</td>
<td>2.4 GHz, 5 GHz, BLE</td>
</tr>
<tr>
<td>MIMO</td>
<td>2x2:2</td>
</tr>
<tr>
<td>ESSID</td>
<td>8</td>
</tr>
<tr>
<td>Uplink Ports</td>
<td>1 x GbE (PoE)</td>
</tr>
<tr>
<td>LAN Ports</td>
<td>1 x GbE</td>
</tr>
<tr>
<td>Other Ports</td>
<td>1 x USB 2.0</td>
</tr>
<tr>
<td>Antenna</td>
<td>Built-in Antenna</td>
</tr>
<tr>
<td>Mounting</td>
<td>Wall / Ceiling Mount</td>
</tr>
<tr>
<td>Authentication Types</td>
<td>802.1X / UAM (browser-based) / IP or MAC-based</td>
</tr>
<tr>
<td>Authentication Servers</td>
<td>Local / On-Demand / Guest / RADIUS</td>
</tr>
<tr>
<td>Social Media Login</td>
<td>Facebook / Google+ / Line / Open ID</td>
</tr>
<tr>
<td>Dimensions (W x D x H; cm)</td>
<td>14.7 x 14.7 x 3.5</td>
</tr>
<tr>
<td>Weight</td>
<td>0.55 kg</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Model Number</th>
<th>EC-PP200</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power</td>
<td>Input: 24 VDC / 2.5A</td>
</tr>
<tr>
<td>Interfaces</td>
<td>Serial: 1 x RS-232 port / USB type-B port</td>
</tr>
<tr>
<td>Print Method</td>
<td>Thermal line printing</td>
</tr>
<tr>
<td>Print Speed</td>
<td>250 mm/sec</td>
</tr>
<tr>
<td>Print Life</td>
<td>100 km</td>
</tr>
<tr>
<td>Dimensions (W x D x H; cm)</td>
<td>17.6 x 14.6 x 12.4</td>
</tr>
<tr>
<td>Operating Temperature</td>
<td>0°C (32°F) to 45°C (113°F)</td>
</tr>
<tr>
<td>Operating Humidity</td>
<td>0% to 80% non-condensing</td>
</tr>
</tbody>
</table>
SOLUTION ARCHITECTURES
IgniteNet Wi-Fi Access
# Indoor/Outdoor APs Specs

<table>
<thead>
<tr>
<th></th>
<th>Spark AC W2 Mini PoE</th>
<th>Spark AC1200 W2</th>
<th>Sunspot AC2600 W2</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CPU</strong></td>
<td>RTL8197F (MIPS 24k 1000 MHz)</td>
<td>IPQ4018 - Quad-core ARM Cortex A7 (700 MHz)</td>
<td>IPQ8068 - Dual-core Qualcomm® Krait™ (1.4 GHz) with dual-core network accelerator (730 MHz)</td>
</tr>
<tr>
<td><strong>Max supported data rate (2.4/ 5 GHz)</strong></td>
<td>300/ 866 Mbps</td>
<td></td>
<td>800/ 1733 Mbps</td>
</tr>
<tr>
<td><strong>Radio output power (2.4/ 5 GHz)</strong></td>
<td>22/ 22 dBm</td>
<td>23/ 23 dBm</td>
<td>24/ 24 dBm</td>
</tr>
<tr>
<td><strong>MU-MIMO</strong></td>
<td>Yes</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Beamforming</strong></td>
<td>Yes</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>160 MHz channels with 80 +80 MHz split option</strong></td>
<td>No</td>
<td></td>
<td>Yes</td>
</tr>
<tr>
<td><strong>Antenna (2.4/ 5 GHz)</strong></td>
<td>(4/ 5 dBi) omnidirectional</td>
<td>(6/ 8 dBi) omnidirectional</td>
<td>(6/ 8 dBi) omnidirectional</td>
</tr>
<tr>
<td><strong>Available ports</strong></td>
<td>2 x 1000 Base-T</td>
<td>2 x 1000 Base-T</td>
<td>2 x 1000 Base-T</td>
</tr>
<tr>
<td><strong>PoE</strong></td>
<td>802.3af</td>
<td>802.3af</td>
<td>802.3at</td>
</tr>
<tr>
<td><strong>Universal indoor and outdoor enclosure</strong></td>
<td>No</td>
<td></td>
<td>Yes</td>
</tr>
<tr>
<td><strong>Mounting</strong></td>
<td>Wall, ceiling, desktop</td>
<td>Wall, ceiling, desktop, pole (optional)</td>
<td></td>
</tr>
</tbody>
</table>
Multiple models to choose for Broadband Access

- Beamforming 120° AP
- 19 cm antenna bridge/client
- 35 cm antenna bridge/client
- Tri-Band Beamforming 120° AP/client/bridge
- Tri-Band 10G Beamforming 360° AP

MetroLinq™
Great for short PTP links

up to 10 kms
Wi-Fi backhaul

- Use 2.4 GHz for Wi-Fi access and leave 5 GHz for backhaul.
- Build high-capacity backhaul sufficient for rapidly growing Wi-Fi consumption.
- Expand your network quickly cost effectively.
Last mile access

- MetroLinq allows providing real Gigabit speeds to the home/ office
- Quick, cost-effective and easy deployment allows quick expansion and extension of fibre based networks
- Last mile connectivity in PTP or PTMP network configuration
Security

- 7-14GHz of uncongested spectrum
- Secure - no excessive data is traveling beyond receiving station
- Robust connectivity for mission critical data with 5 GHz backup
Fiber extension

- Robust and high speed connectivity for enterprises
- Easy to deploy and use

Fire Up Your Network™
Enterprise Wireless | Broadband Wireless | Fiber

www.ignitenet.com
Small cell backhaul

- High capacity reserve - investment in the future infrastructure
- Ideal for dense metropolitan deployments with frequency re-use
- Small form factor and very easy to deploy or relocate
KEY FEATURES

Flexible Deployment  AP Management  User Management  Customized Wi-Fi
Networking Features

**Internet Options**
- DHCP Client
- Static IP
- PPPoE client

**Wireless Interface Modes**
- Access Point or Client Mode
- Bridged Mode
- Router Mode
- Hotspot Mode
- Vlan tag mode
- Dynamic VLAN

**Ethernet Interface Modes**
- Bridged Mode
- Router Mode
- Hotspot Mode
- Vlan trunk

**Other Features**
- L3 Firewall
- Port Forwarding
- DHCP server (for routed interfaces)
- Limit Upload/Download (per SSID)
- Client Isolation
FLEXIBLE DEPLOYMENT

- L2/L3 deployment
  - Deployment without tunnel
  - Deployment with Complete tunnel
  - Deployment with Split tunnel
  - Deployment with Complete tunnel & Split tunnel

- VPN
  - Site to Site VPN
  - Remote VPN

- High availability
  - 1+1
  - N+1
AP MANAGEMENT

AP Discovery and Provisioning

Centrally discover and configure APs during initial deployment

Bulk Firmware Upgrade

Upgrade firmware of APs centrally from controller

Template-based Configuration

Push configurations from controller to APs via templates

Detailed AP Status Monitoring

Real-time email notifications for AP status changes

Rogue AP Detection

Automatically adjust AP transmit power to balance loading

AP Load Balancing
USER MANAGEMENT

• Authentication
  ○ Authentication mechanisms
  ○ Browser-based authentication
  ○ 802.1X authentication
  ○ Mac-based authentication

• Role-based policies

• User mobility
  ○ Layer 2 Roaming
  ○ Cross Gateway Roaming
  ○ Account roaming out
  ○ WISPr

• User logs & activity tracing
CUSTOMIZABLE CAPTIVE PORTAL

- Customizable Wi-Fi login pages with user-defined fields allow network operators to collect user information for marketing and security purposes
  - Default page
  - Customized with built-in template
  - Upload your own page
  - Use external web server
ON-DEMAND ACCOUNTS WITH BILLING

- On-demand accounts provide an easy account generation and billing plan for guests
- Application: Free vs. Premium Wi-Fi service in hotels
PARTNERSHIPS & INTEGRATIONS

Technology Partners
- TitanHQ
- ekahau
- LinkyFi

SMS
- SMS API
- Clickatell

Payment Gateway
- SecurePay
- Authorize.Net
- Worldpay
- PayPal
- Camarero10

On-demand API

Hotel PMS
- Oracle Micros
KEY FEATURES OVERVIEW

- Flexible Deployment
  - Integrated Wi-Fi Management & Access Control
  - Flexible L2/L3 Deployment
  - Service Zones with Tiered Administrator Privileges

- AP Management
  - Centralized AP Management
  - Intelligent Performance Optimization
  - Enterprise-grade Wireless Security

- User Management
  - Comprehensive Authentication Mechanisms
  - Role-based User Policies by Schedule & Location
  - Detailed User Monitoring Logs & Reports

- Customized Wi-Fi
  - Social Media Login
  - Customizable Captive Portals & Data Collection
  - On-demand Accounts with Billing Plans
CASE STUDIES / SUCCESS STORIES
ISP - HOTSPOT SERVICES

- **2,000 units** of outdoor APs, **500 units** Indoor APs and **450 units** Industrial Switch mass deployed in Philippine

- **Project Customer:**
  - ISP, Philippine

- **Products Deployed:**
  - EWS Controller x 3
  - ECW Indoor AP x 500
  - ECWO Outdoor AP x 2,000
  - PoE Switch x 450

- **Antenna:**
  - Dual band 5dBi Omni x 3,600
  - Sector Antenna 2.4GHz, 7-12dBi x 4,200
  - Sector Antenna 5GHz, 10-14dBi x 4,200

- **Key Application**
  - Hotspot Service with Facebook authentication
  - Captive Portal with single sign on
  - DHCP/User/System log server
  - Interworking with operator’s core network equipment
Over a hundred of high-end Controllers were deployed for managing the Wi-Fi offload traffic of 50,000+ hotspots across Taiwan. Over a hundred of high-end Controllers were deployed for managing the Wi-Fi offload traffic of 50,000+ hotspots across Taiwan.

- Project Customer: Telecom, Taiwan
- Products Deployed: EWS Controller
- Location Deployed: MRT Stations & McDonalds, Coffee Shops & Government Buildings, Convenience Stores & Telephone Booths
- Key Applications:
  - 802.1X (EAP-SIM) and browser-based (UAM) user authentication
  - Role-based user policy enforcement
  - DNS proxy server
  - DHCP/User/System log server
  - Interworking with operator’s core network equipment

50,000+ hotspots deployed

4000 ~ 5000 concurrent users per gateway

20 million EAP-SIM transitions per day
Outdoor networking equipment has to endure harsher weather conditions and is much more difficult to deploy than indoor ones. Edgecore’s solution can address these difficulties by offering access points that are specially designed for outdoor use. The outdoor APs can be flexibly coupled with antennas of varying gains depending on the required coverage and configurable parameters and thresholds help to optimize Wi-Fi performance.

- Project Customer:
  » Public Wi-Fi provider, Honduras
- Products Deployed:
  » EWS Controller
  » ECWO Outdoor AP
- Key Applications:
  » 2+1 High Availability
  » Enterprise-grade user authentication
  » Centralized AP management
  » Customize captive portal & data collection
  » Detailed user monitoring logs & report
  » Optimized CCA parameters for outdoor application
To collaborate with businesses and government, public service providers need to offer free public Wi-Fi and use the login portal for tourism advertising to increase visibility.

- **Project Customer:**
  - Wi-Fi Service Provider, Taiwan

- **Key Applications:**
  - Browser-based user authentication
  - Centralized AP management
  - Role-based user policy enforcement
  - Customized walled gardens
  - Customized captive portal & data collection
  - Detailed user monitoring logs & report
  - Location-based advertising
Deployed in several night markets in Taiwan. With the walled gardens functionality, tourists can link to the night markets’ official websites before authentication. In addition, with the service zone functionality, network service providers can define different access policies ensuring the overall network performance. Furthermore, service providers can also offer location-based advertising for stalls on portal.

• Products Deployed:
  » EWS Controller
  » ECW Indoor AP
• Key Applications:
  » Browser-based User authentication
  » Centralized AP management
  » Role-based user policies enforcement
  » Customized walled gardens
  » Customize captive portal & data collection
  » Detailed user monitoring logs & report
  » Location-based advertising
Vistabeam

Location:
Nebraska, USA

Description:
Vistabeam is a rural Internet Service Provider from Nebraska, USA, which has started modernising their network using MetroLinq devices. Picture on the right shows a perfect trio: MeshLinq used to power and deliver data to devices, MetroLinq 2.5G 60-19 is used for the high-capacity 60 GHz backhaul and MetroLinq 10G Omni - a tri-band base-station is used for the last mile dedicated access.
WiFi Canrias

Location:
Canary Islands, Spain

Description:
A largest ISP in Canary Islands is starting to use MetroLinq devices to build reliable and future-proof wireless backhaul since 5 GHz is very congested.
Smart City

Metropolitan deployments

Location:
Newark, USA

Description:
A mix of MetroLinq and cloud-managed Wi-Fi equipment provide future-proof connectivity for both hotspot as well as smart city devices like cameras, sensors, etc.
The End