Combined WiMAX™ and WiFi End-to-End Broadband Solutions

Wi²

Alvarion's Wi² solution offers the ultimate IP wireless broadband solution for a variety of applications and services; anytime, anywhere.

Wi² provides an easy-to-deploy outdoor Wi-Fi Mesh access solution integrated with built-in management and OSS support, as well as readiness for immediate connection with the robust QoS capabilities of a BreezeMAX®/BreezeACCESS® backhauling network.

Services delivered with Wi² range from basic public Internet access to public safety, traffic management, video surveillance, indoor coverage and other advanced voice, video and mobile applications.

Deploy Mesh Networks Easily and Cost Effectively

Answering the need for outdoor Wi-Fi connectivity, Wi² offers localized mesh networks with a Wi-Fi AP-rich feature set. Furthermore, it enables immediate connection with WiMAX star backhauling networks. This results in a high performance, low complexity, easy-to-deploy network, which can be easily tailored to specific operational and budget demands. Consequently, Wi² enables operators to work according to their specific needs and enjoy mesh benefits such as self-healing and lower network costs while still maintaining a robust, simple and high QoS network.

Integrate a Complete, Robust End-to-End Solution

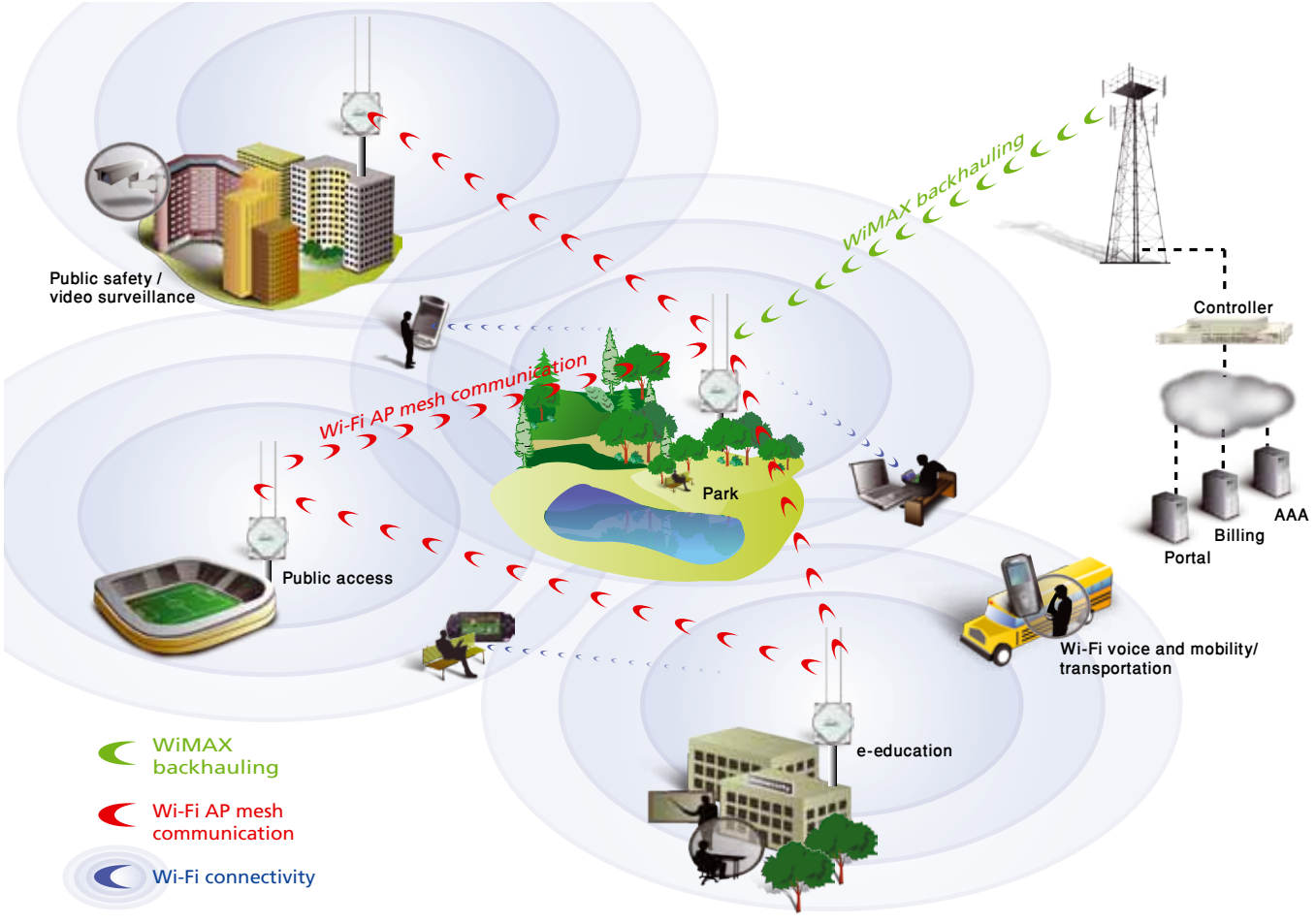
Wi² offers a wide range of important features. These include extensive network management with detailed statistics and diagnostics capabilities for easy evaluation of network performance and behavior; embedded OSS abilities with RADIUS servers, captive portals and accounting information; self-healing; powerful QoS for voice and video support; and extensive security features.

Increase Revenue with Multiple Application Network Support

Deliver a variety of independent services through the simultaneous operation of up to 16 different virtual networks (16 SSIDs) on the same infrastructure. Each network retains unique QoS, security, authentication, guest access services, management attributes and billing rates, allowing for revenue generation according to customer service level agreements (SLAs).

Key Wi² Applications

- Public Internet access
- Voice
- Video surveillance
- Traffic management
- Indoor Wi-Fi coverage
- Outdoor workers
- Public safety
- Homeland security
- Transportation
- Nomadic and mobile applications



Improve ROI by Extending the Service Offering to Wi-Fi End Users

Capture revenues from both Wi-Fi and WiMAX clients – existing wireless IP broadband operators can generate additional revenues from Wi-Fi end users using standard laptops, PDAs and Wi-Fi phones, while leveraging existing WiMAX networks.

Support Advanced Mobile Applications

The roaming and rapid handover support offered by Wi² enables the deployment of advanced mobile applications such as voice networks and transportation, as well as readiness for migration to a complete Mobile WiMAX™ network.

Reduce Costs Through Easy Plug and Play Installation Anywhere, Anytime

The Wi² solution can be installed in any rugged outdoor conditions – including roofs, walls and light poles, thereby reducing site installation, acquisition and rental costs. Furthermore, plug and play installation enables operators to literally just connect the units to the power, with authentication, software updates and configuration performed automatically by the Wi² controller.

Support and Manage Networks with Thousands of APs

Wi² is a completely scalable solution which can easily support and manage deployments from tens to thousands of APs. This scalable network architecture enables operators to pay as they grow and minimize risks, without any additional or incremental costs.

Wi² System Components

Wi²

Ruggedized solution which connects to all Alvarion outdoor CPEs, irrespective of frequency
Deployment - outdoor
Supports Wi-Fi AP 802.11b/g, WiMAX connectivity, security and QoS

Wi² Extender

Extends Wi-Fi network, uses the same Wi² AP (software and hardware), and includes indoor unit (IDU) for power and connectivity
Deployment - outdoor
Supports Wi-Fi AP 802.11b/g, security and QoS

Wi² Controller (optional)

Centralized network management and control (recommended for all deployments), with optional mobility support
Deployment - NOC
Supports security, QoS, OSS, mobility, plug and play installation and network management (for all APs)

Wi² NMS (optional)

Manages all controllers in network and provides additional alerts and statistical information
Deployment - NOC
Supports network management (also for controllers)

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For the latest contact information in your area, please visit:
http://www.alvarion.com/index.php/en/company/worldwide-offices

Specifications

Wi-Fi Access Point Specifications

Data Rates
802.11g: 6, 9, 11, 12, 18, 24, 36, 48, 54 Mbps per channel
802.11b: 1, 2, 5.5, 11 Mbps per channel

Maximum Channels
FCC/IC: 1-11
ETSI: 1-13
Japan: 1-14

Maximum Clients
128 for the radio interface set to access point mode

Modulation Types
802.11g: CCK, BPSK, QPSK, OFDM
802.11b: CCK, BPSK, QPSK

Operating Frequency
802.11b/g:
2.4~2.4835 GHz (US, Canada, ETSI)
2.4~2.497 GHz (Japan)

Network Management
Web-management, Telnet, SNMP

Radio Signal Certification
FCC Part 15.247 (2.4 GHz)
EN 300.328, EN 302.893, EN 300 826, EN 301.489-1, EN 301.489-17
ETSI 300.328; ETS 300 826 (802.11b)

Safety
UL/CUL (CSA60950-1, UL60950-1)
CB (IEC 60950-1)
UL/GS (EN60950-1)

Wireless Radio/Regulatory Certification
ETSI 300 328 (11b/g), 301 489 (DC power)
FCC Part 15C 15.247/15.207 (11b/g), Wi-Fi, DGT, TELEC, RSS210 (Canada)

Electromagnetic Compatibility
CE Class B (EN55022)
CE EN55024
IEC61000-3-2, IEC61000-3-3, IEC61000-4-2, IEC61000-4-3, IEC61000-4-4, IEC61000-4-5, IEC61000-4-6, IEC61000-4-8, IEC61000-4-11
FCC Class B Part 15
VCCI Class B
ICES-003 (Canada)

Standards
IEEE 802.3 10BASE-T
IEEE 802.3u 100BASE-TX
IEEE 802.11 b, g

Antenna Specifications
2 x 8 dBi Omni directional (2.4-2.5 GHz)

TX Power and RX Sensitivity

802.11g	6 Mbps	9 Mbps	12 Mbps	18 Mbps	24 Mbps	36 Mbps	48 Mbps	54 Mbps
TX power (dbm)	20	20	20	20	20	19	19	18
RX sensitivity (dbm)	-95	-93	-87	-84	-80	-77	-73	-70

802.11b	1 Mbps	2 Mbps	5.5 Mbps	11 Mbps
TX power (dbm)	20	20	20	20
RX sensitivity (dbm)	-111	-102	-92	-91

Software Features

Access Control
Integrated HTML login/captive portal
Integrated RADIUS authentication
Configurable min./max. connect speed
Scalable to thousands of users

Centralized Management
Full plug and play AP configuration, upgrade and control
Centralized system monitor for thousands of APs
Full, secure GUI configuration and monitoring

Management
SNMP, CLI, web-based
Selectable RF channel and transmit power
Packet capture on WLAN or LAN interface (diagnostics)

Multiservice
Support for 16 virtual networks, hidden and broadcast SSIDs
Unique SSID, Mac address, authentication, encryption, VLANs and QoS
Per-user bandwidth management
User account profiles using embedded/external AAA
Full virtual AP configuration, including authentication, DTIM, QoS

Mobility
Full voice quality L2 and L3 mobility for clients roaming between APs
Service transparency through fast roaming and handovers

QoS and Other
Support for 802.11i, WMM, RADIUS, 802.1q, 802.1p,
IP TOS/DSCP
Mesh (DWDS), self-healing, self-optimizing

Security
802.1x, AES, WPA2, Radius, WEP, Firewall
SSH/SSL, IPSec encapsulated SNMP, XML
Wireless MAC/IP filter, NAT, CIDR
Layer-2 wireless client isolation
DHCP: Server; Client; Relay,
Option 82, Rogue AP detection and prevention

Physical Dimensions

Size (H x W x D)
32.9 x 27.8 x 21.1 cm
(13.0 x 11.0 x 8.3 in)

Weight
7.0 kg (15.4 lbs)

Temperature
Operating: -40 to 60°C (-40 to 140°F)
Storage: -55 to 80°C (-67 to 176°F)

Humidity
5 to 95% (non-condensing)

EMC Compliance (Class B)
FCC Class B (US)
RTTED 1999/5/EC
DGT (Taiwan)

* For backhaul specifications, please see BreezeMAX or BreezeACCESS VL documentation, as applicable
* For further information, please contact your local Alvarion sales representative

About Alvarion

Alvarion (NASDAQ:ALVR) is a global 4G communications leader with the industry's most extensive customer base, including hundreds of commercial 4G deployments. Alvarion's industry leading network solutions for broadband wireless technologies WiMAX, TD-LTE and WiFi, enable broadband applications for service providers and enterprises covering a variety of industries such as mobile broadband, residential and business broadband, utilities, municipalities and public safety agencies. Through an open network strategy, superior IP and OFDMA know-how, and ability to deploy large scale end-to-end turnkey networks, Alvarion is delivering the true 4G broadband experience today (www.alvarion.com)

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