

# Complete offering for enhanced WiMAX™ Networks

## BreezeMAX® ASN-GW

Alvarion's BreezeMAX ASN-GW includes a Mini Centralized ASN-GW and an additional Integral ASN-GW. This enhanced offering allows operators to enjoy the best of both worlds: the benefits of Alvarion's distributed architecture approach together with a centralized architecture approach for optimal deployment flexibility and Total Cost of Ownership (TCO).

### All-in-One WiMAX Network Functionality

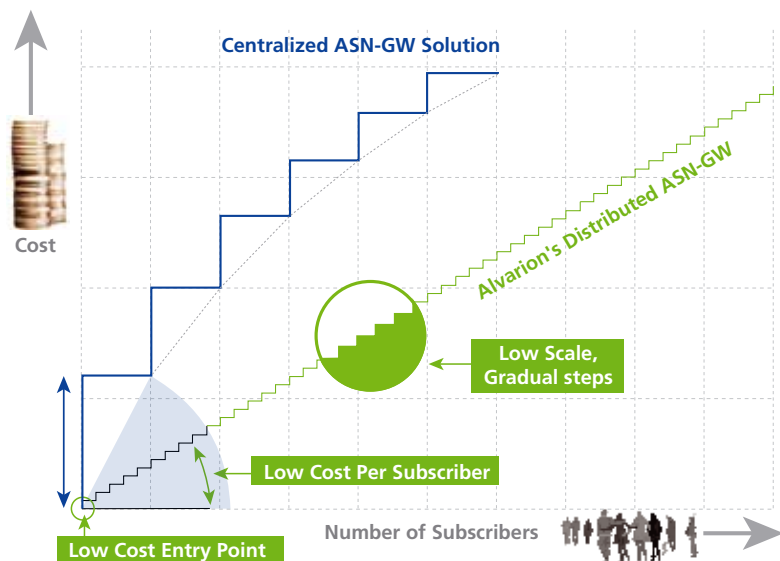
Alvarion's BreezeMAX Access Service Network Gateway (ASN-GW) offers the complete set of network functionality needed to provide radio access to WiMAX subscribers. BreezeMAX ASN-GW is based on an innovative distributed architecture, which optimizes deployment planning and allows a pay-as-you-grow deployment strategy. The ASN-GW is an integral part of Alvarion's carrier-class, field proven 4Motion® Mobile WiMAX™ solution.

### Innovative Fractalized ASN-GW Approach

The BreezeMAX ASN-GW offering encompasses a Mini-Centralized ASN-GW and a complementary Integral ASN-GW, which employ the same software and feature set. Alvarion's fractalized ASN-GW approach divides a single ASN-GW serving multiple base stations into an optimal number of identical collocated ASN-GWs serving a larger number of base stations. This enables operators to enjoy the economic and performance benefits of a distributed approach, as well as a centralized one when needed, optimizing deployments based on geography and reducing TCO.

#### BreezeMAX ASN-GW Highlights

- Stackable ASN-GW model
- Subscriber management capabilities
- Mobility efficiency
- VLAN CS & IP CS coexistence
- Multiple host implementation
- Multiple applications QoS
- Voice enhanced real time capabilities



Distributed approach provides better value for our customers

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## The Distributed Architecture Advantage

Based on a pay-as-you-grow approach, Alvarion's distributed architecture enables operators to reduce costs by minimizing initial investments and expensive backhauling costs. With lower bandwidth dimensioning, inter-node bandwidth is better utilized compared to a centralized approach and there is a better operator transport topology fit which enables operators to adapt the ASN-GW location to their transport topology. Subscribers also benefit as the service edge is brought closer to the user for high service availability which minimizes loss-of-service and provides faster services. Scalable from just a few hundreds to millions of subscribers, it is an ideal way to service a mixture of fixed and mobile services.

## Enabling Optimized TCO

By optimizing the ASN-GW sites while keeping the distributed ASN-GW architecture, operators can benefit from lower entry costs and reduced CAPEX. Utilizing the optimal number of ASN-GWs OPEX is lowered as well as maintenance and operational expenses, and new opportunities are introduced to build networks in mixed Mini-Centralized ASN-GW / Integral ASN-GW deployments.

## Maximum Deployment Plan Flexibility

BreezeMAX ASN-GW enables optimized, dynamic geography balance, bringing the service edge closer to the user and with limited constraints on site placement. Reliability is also increased due to flexibility in redundancy configuration (N+1).

## Specifications

### Topology

- Profile C
- Distributed and mini-centralized ASN-GW topology
- Stackable ASN-GW

### Connectivity

- Simple IP
- Intra-ASN mobility
- CSN anchored mobility (R3)
- Inter-ASN mobility (R4)\*
- Proxy mobile IPv4 & FA\*
- Simple IP and mobile IP coexistence

### AAA

- RADIUS AAA client support
- EAP Authenticator
- Single EAP, user device or user/device authentication
- Session based accounting
- Un-authenticated mode (lab)

\* future

### IP address allocation

- AAA assignment (DHCP Proxy)
- DHCP relay
- Local pools (dynamic or static)
- Overlapping private IP address pools
- Dynamic HA address allocation\*
- DHCP option 82

### Tunneling

- Multiple tunnels (Enterprise/csn specific)
- IP-in-IP tunneling
- GRE tunneling
- IEEE 802.1q VLANs
- HA seamless inter-technology mobility\*

### QoS

- Network admission control
- Service flow authorization
- Multi-flow QoS traffic classification

- UGS, ERT-VR, NRT, RT and BE support
- Unmanaged voice
- Managed voice\*
- DiffServ marketing/remarking

### Interfaces

- Gigabit Ethernet
- Fast Ethernet

### Scalability

- 3000 registered users
- Unlimited number of ASN-GWs in the network
- 200 Mbps

### Management

- SNMPv2 based EMS

### Other

- PHS (Packet Header Suppression)
- IP spoofing protection

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### About Alvarion

Alvarion (NASDAQ:ALVR) is a global leader in 4G wireless communications with the industry's most extensive customer base with hundreds of commercial WiMAX deployments. Alvarion's industry leading solutions enable true open 4G and vertical applications for service providers and enterprises. Through an OPEN WiMAX 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](http://www.alvarion.com))