

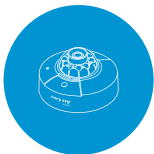


AirMax4GW

4G LTE + WiFi Outdoor Gateway

Telecom Applications

WHITE PAPER



Designed for Telecom Operator

The AirMax4GW is a standalone 4G LTE outdoor gateway designed for Telecom operators to diversify their 4G/3G business models. By bridging 4G/3G connections with WiFi and Ethernet, it provides telecom operators new business opportunities to sell their LTE and UMTS bandwidth beyond the usual smartphone and tablet markets. In addition, the built-in 4G LTE modem is completely backward compatible with 3G UMTS, HSDPA, HSUPA, Edge, and GPRS standards.



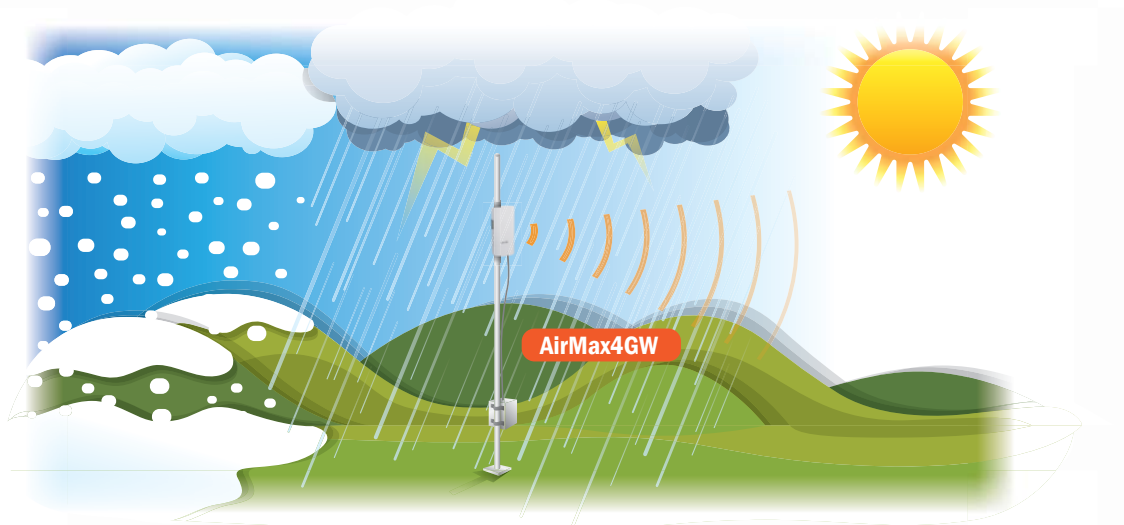
Bridge between WiFi, Ethernet, and 4G/3G Networks

The AirMax4GW bridges the connections between WiFi, Ethernet, and the 4G/3G Mobile Network. It can connect any Wi-Fi or Ethernet equipped devices to the broadband Internet. Therefore, Telecom operators can extend their service to cover WiFi and Ethernet devices such as IP cameras, PC, notebooks, traffic controller, and much more.



Weatherproof Outdoor Deployment

The AirMax4GW is completely weather proof. That means it can be deployed in any location to provide Internet connectivity via 3G/4G network. In addition, the high gain LTE/UMTS antennas enable the AirMax4GW to receive weaker 4G/3G signal and distribute greater Wi-Fi signal than any mobile devices.





Hardware Diagram

300Mbps 802.11b/g/n

Share 4G/3G Internet connection through Wi-Fi or Ethernet. The large 7dBi MIMO directional antenna delivers clear 2.4GHz WiFi signal over large areas.

Hardware VPN

Build secure and encrypted video stream through VPN connection



4G LTE Module

Install the AirMax-4GW anywhere and connect to Internet anywhere via 4G LTE or 3G UMTS

High Gain 4G Antennas

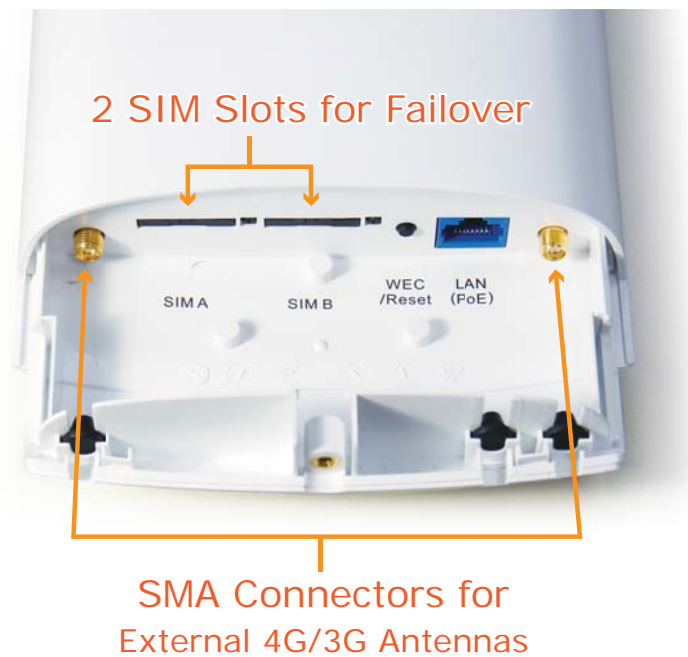
The large High Gain 4G/3G antenna provide exceptional connection quality to 4G/3G networks.

LAN Port and POE

Connect with IP Cameras and other networking devices via LAN Port. Power the device by POE



Port and Connectors





Dual High Gain Antennas

The AirMax4GW features high gain and high sensitivity 4G LTE antennas. So it can receive 4G or 3G mobile signal where normal mobile phone can not. In addition, it also has a high gain WiFi antenna which can send out wireless signal over large area. There is also R-SMA antenna connectors for installing external 4G/3G antennas when you need better signal.



Dual Modem Model Available*

The standard AirMax4GW is equipped with single 4G LTE modem with dual SIM slot for redundancy. A project based dual LTE modem model AirMax4GW-DM is available by request for Telecom operators that wish to double the available bandwidth to their customers. The AirMax4GW-DM can aggregate the bandwidth of 2 LTE connections through intelligent load balancing.



**Minimum ordering quantity is required for the dual modem model, please contact AirLive sales for details.*

Application Environments



Internet for Vacation Home and Cottages

In many countries, people have vacation home or cottages in remote area where it is difficult to deploy wired Internet. The AirMax4GW is the best solution for Telecom operator to provide Internet service. AirMax4GW can be installed on the roof top where it can get the best 4G/3G signal reception, then bring the Internet signal through Ethernet cable to the home. Best of all, AirMax4GW's built-in 300Mbps MIMO Wi-Fi can provide wireless connectivity to the entire outdoor area for wireless IP cameras, notebook PC or tablets.



Hotspot Deployment

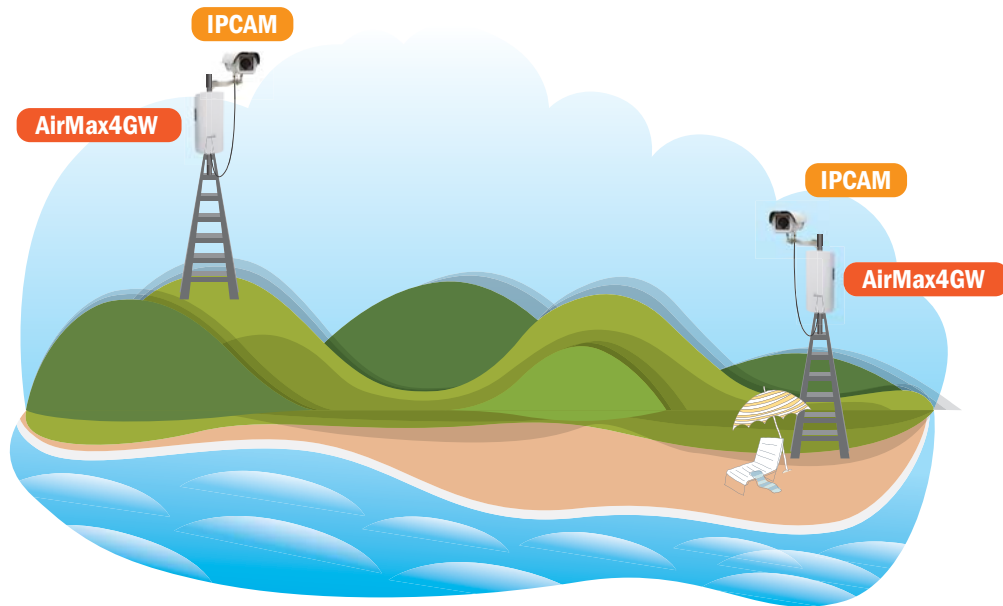
The AirMax4GW is the easiest way for Telecom provider to deploy Wi-Fi hotspot services. There is no limitation on wiring distance or location of Internet source. It is ready for deployment in any locations. Furthermore, it support 802.1X, UAM server, and URL redirection for easy integration with Telecom operator's authentication network.





IP Camera and Traffic Controller Installations

Whether it is on the remote site or in the city, IP camera and traffic controller installations can be made much simpler by using the AirMax4GW solution. AirMax4GW can bring any Ethernet or Wi-Fi equipped devices to the 4G/3G network, therefore, expanding the service and business model for the telecom operators.



Software Functions

The AirMax4GW has critical software features that are important for Telecom applications



Captive Portal

The captive Portal function will redirect wireless users to a specific remote landing web page where provider can show their service information and request users to enter their login information.



Captive Portal Configuration	
Item	Setting
Captive Portal	<input checked="" type="checkbox"/> Enable
WAN Interface	WAN-1
LAN Subnet	DHCP-1
Authentication Server	External RADIUS Server Hotspot system
UAM Server	<input checked="" type="checkbox"/> Enable Select from External Server List: hotspotsystem

Save Refresh



Remote Radius and UAM server

Operator can enter the remote Radius server information so when users try to login into the Internet service, they will be required to enter user name and password.

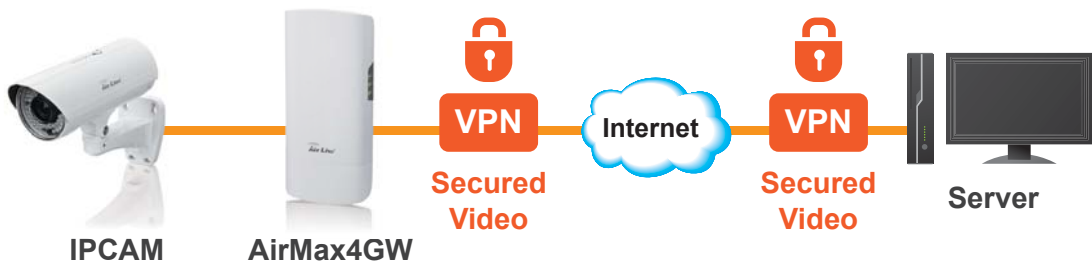


External Server Configuration	
Item	Setting
Server Name	hotspotsystem
Server IP/FQDN	hotspotsystem.com
Server Port	80
Server Type	UAM Server
	Login URL: https://customer.hotspotsys
	Shared Secret: hotsys123
	NAS/Gateway ID: Airlive
	Location ID: 1
Location Name: airlive	
Server	<input checked="" type="checkbox"/> Enable



Secured VPN Connection

The AirMax4GW's VPN function provide secure video transmission over VPN encryption. Therefore, the operator's customers do not need to worry about leaking sensitive information and keep live video image from prying eyes. It provides opportunity for Telecom operators to offer secured video streaming service for enterprise customers.



AirLive AirMax4GW 4G LTE Outdoor Gateway with WiFi

Configuration > IPsec > PPTP > L2TP > GRE

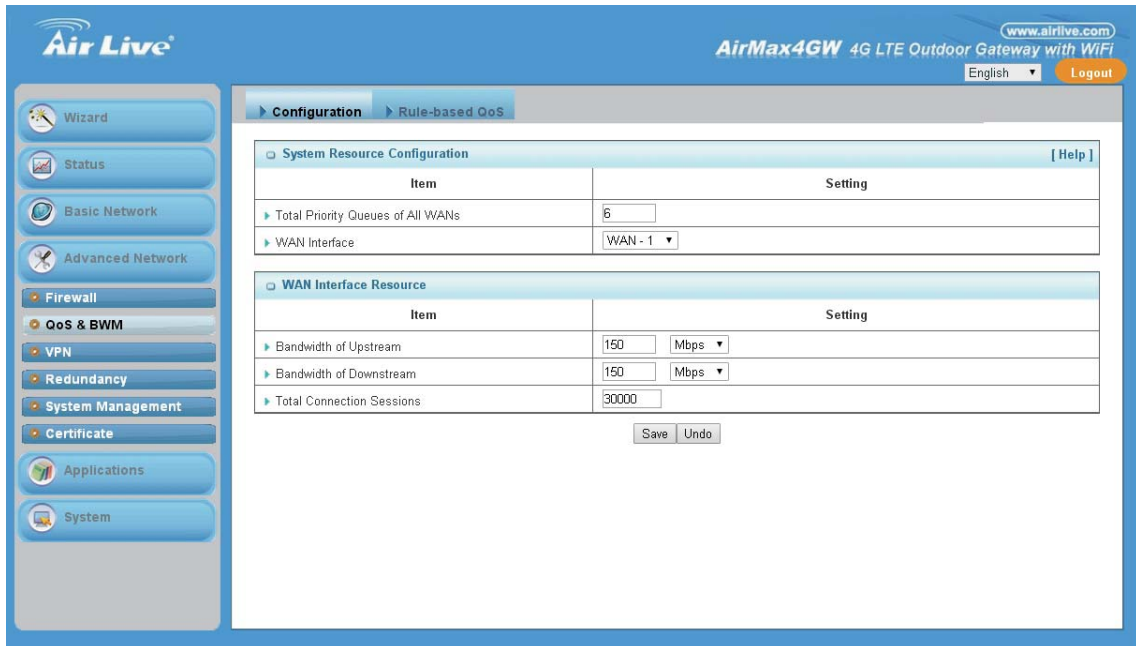
Item	Setting
IPSec	<input type="checkbox"/> Enable
NetBIOS over IPSec	<input type="checkbox"/> Enable
NAT Traversal	<input type="checkbox"/> Enable
Max. Concurrent IPSec Tunnels	32

Tunnel List & Status								
ID	Interface	Tunnel Scenario	Tunnel Name	Remote Address	Gateway	Status	Enable	Actions
<input type="button" value="Save"/>								



Policy Based Bandwidth QoS Firewall

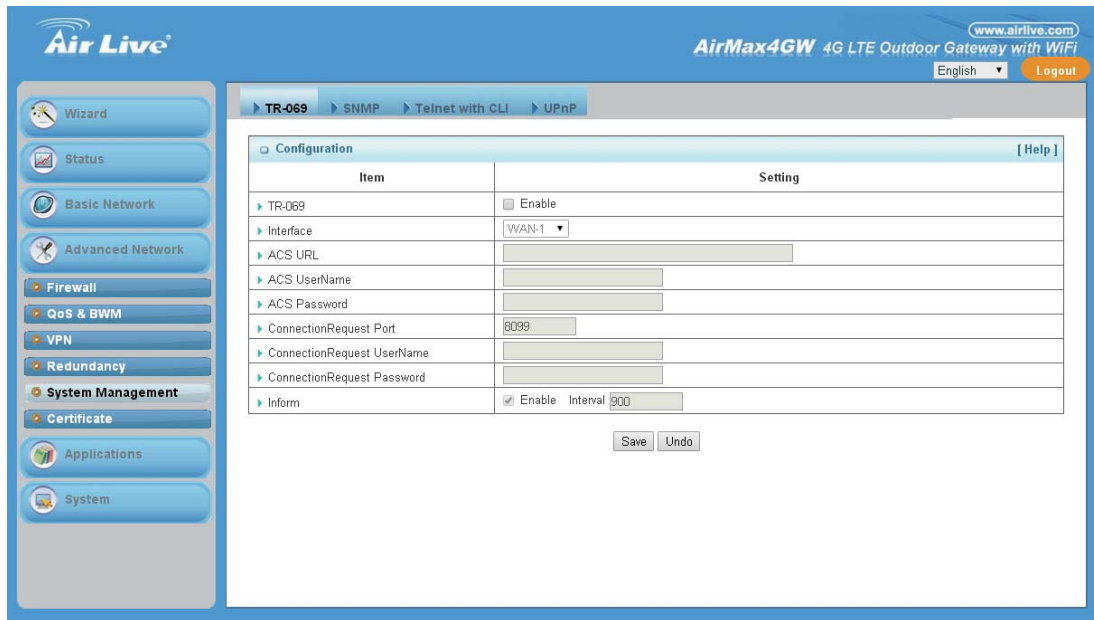
AirMax4GW's enterprise class firewall can help Telecom provide to expand their service portfolio with their business and enterprise customers. It allows administrators control the user's access exactly as needed. You can define the bandwidth and QoS for each device and user to guarantee or limit the bandwidth.



4GW Versatile Management

The AirMax4GW can be managed via Web, TR069, SNMP, and CLI commands. The TR069 is especially designed for Telecom provider to centrally managed the AirMax4GW.

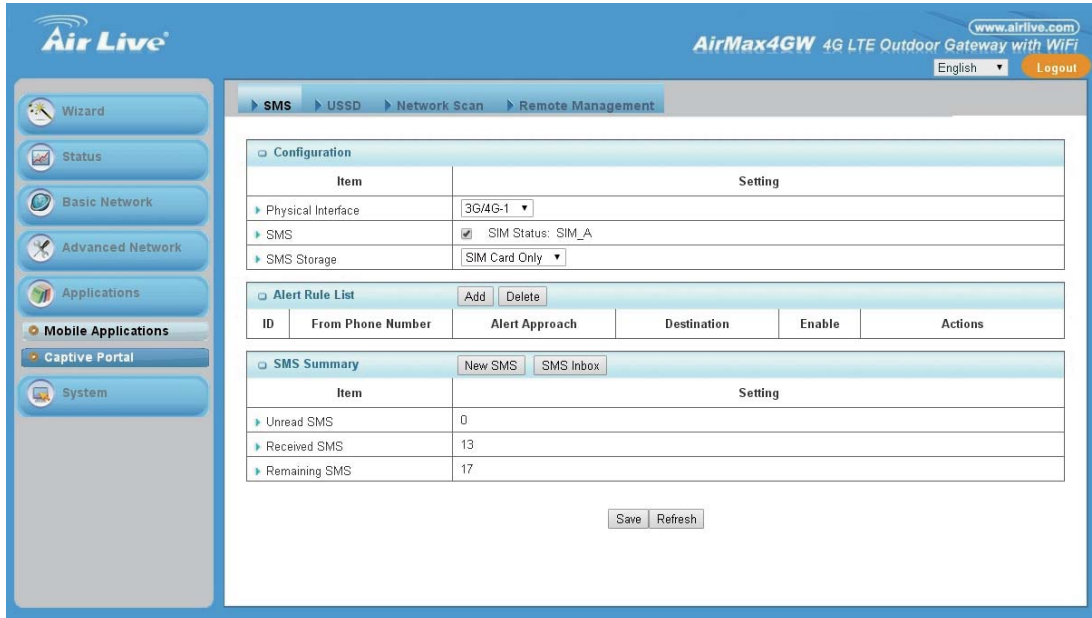




SMS Short Message

The AirMax4GW allow the administrators to send basic commands and get status via SMS message. Therefore, the operators do not need to know the device's IP address and still able to do simple managements and check status with the AirMax4GW.





You can limit to accept SMS message commands only from specific phone numbers for security.

