MSG2100E series merging gateway

The Raisecom MSG2100E series merging intelligent gateways, oriented for SMEs, individual users, and branches in special industries, are new voice merging access gateways. Integrated with data, voice, security, wireless, and other functions, they provide users with comprehensive network access solutions.

▼ Introduction

The MSG2100E series supports multiple uplink connection modes at the WAN side, such as the Ethernet interface, EPON interface, and EPON/EPON auto-negotiation interface. It supports multiple types of interfaces at the LAN side, such as Ethernet interface, WLAN interface, and FXS voice interface. You can flexibly deploy multiple services on the same platform to lower costs on network operation and maintenance.

The MSG2100E series provides multiple models with 4 voice interface, 8 voice interfaces, 16 voice interfaces, or 32 voice interfaces to cater for different scales of users.

The appearance and models are as below.

MSG2100E-UPON-8V-AC   **MSG2100E-UPON-16V-AC**

▼ Features

Carrier-grade design

- Adopt metallic shell with good heat dissipation and electromagnetic shielding to meet high reliability requirements of users.
- Provide multiple uplink connection modes at the WAN side, such as the Ethernet interface, EPON interface, and EPON/EPON auto-negotiation interface.
- Provide the USB interface to facilitate rapid backup and restoration with the U-disk.
- Support configuring the LAN-side GE interface as a cascading or uplink interface.
- Provide a FXS voice interface to connect the telephone, fax, and POS machine, thus greatly enriching types of voice access modes and supported services.

Route access

- Support IPv4/IPv6.
- Support route, bridge, NAT, interface mapping, DHCP, and UPnP to meet basic access requirements.
- Support managing VLAN and MAC address to facilitate service and interface planning.
- Support multiple static and policy routing protocols.

- Support route backup.

- Support multicast IGMP Snooping and IGMP Proxy.

- Support rich and flexible QoS scheduling algorithms, such as PQ and WRR.

Security

- Support multiple authentication modes, such as 802.11i, Portal, and RADIUS.

- Support IPSec VPN, L2TPVPN, and other security features.

- Support firewall security policies, DDoS, ARP attacks, interface scanning defence, and filtering based on MAC address, URL, or IP address.

Intranet user management (not supported by the 4V model)

- Support DPI and controlling applications according to type of application layer protocols, user, and user group.

- Support graphical traffic classification and statistics.

Voice

- Support SIP, H.248, and IMS_SIP.

- Support auto-negotiation of voice coding and decoding by G.711a/u, G.723, G.726, and G.729.

- Support PSTN supplementary services, such as call holding, call waiting, call forwarding, three-way calling, hotline, and Centrex, thus constituting a rich and powerful IP voice integrated solution and providing users with more voice service experiences.

Intelligent deployment and diversified management

- Support TR069 management to facilitate service activation, and OAM.

- Support multiple management modes, such as Web, to meet different management requirements.

- Support zero-configuration and plug and play.

- Support NAT to solve the problem of NMS's establishment of connections between the Internet and Intranet devices.

▼ Typical applications
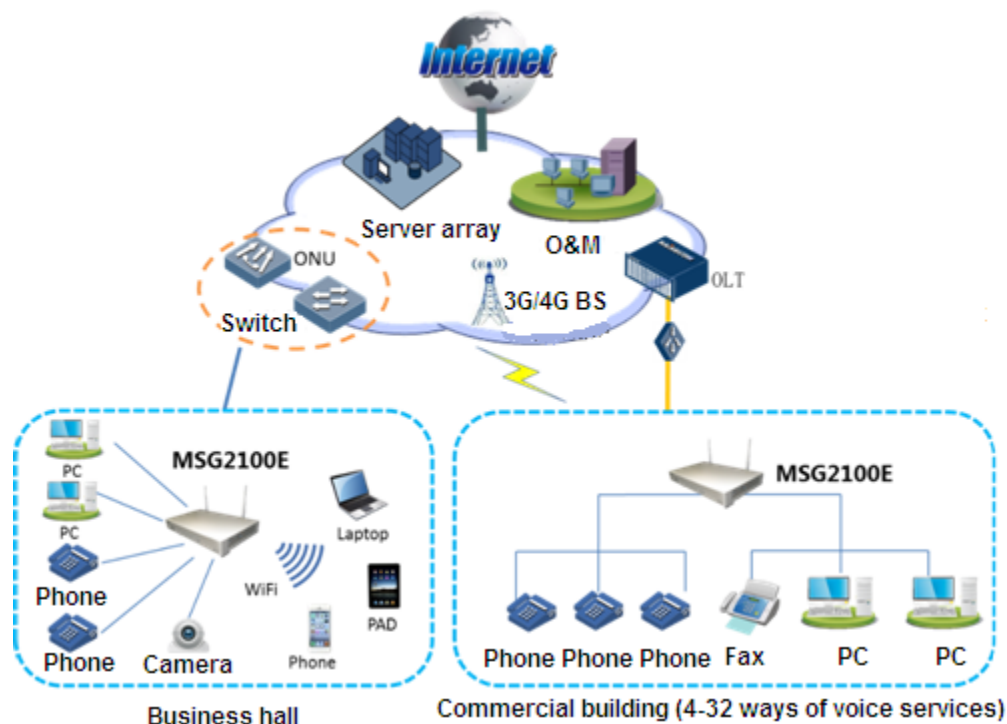
The MSG2100E is integrated with data, voice, and video services, thus able to support the Internet, VoIP, and IPTV on the same platform.

- Support 4–32 voice interfaces (depending on models) to meet users' different requirements on the voice service.

- Support Web and TR069 to implement on-site zero-configuration and facilitate service activation, and OAM

▼ Specifications

Physical features				
Model	MSG2100E-UPON-4V	MSG2100E-UPON-8V-AC	MSG2100E-UPON-16V-AC	MSG2100E-UPON-32V-AC
Weight	0.93 kg	1.5 kg	2.10 kg	3.5 kg
Power supply	External power adaptor, 12 VDC power	220 VAC (100–240 VAC) power		
Maximum power consumption	≤ 18 W	≤ 24 W	≤ 30 W	≤ 48 W
Operating environment	• Operating temperature: -5 to 55 ℃ • Operating humidity: 10%–93% (non-condensing)			
Storage environment	• Storage temperature: -25 to 60 ℃ • Storage humidity: 10%–93% (non-condensing)			
Dustproof level	IP20			
Interface parameters				
FE interface	Interface type: RJ45			
	Transmission rate: 10/100 Mbit/s auto-negotiation			
	Working mode: full/half duplex auto-negotiation			
GE interface	Interface type: RJ45			
	Transmission rate: 100/1000 Mbit/s auto-negotiation			
	Working mode: full/half duplex auto-negotiation			
UPON interface	Interface type: EPON/GPON auto-negotiation optical interface			
Voice interface	• 4–16 FXS voice interface (depending on models) • RJ-11 interface		2 SCSI50 interfaces	
USB interface	USB 2.0 high-speed interface			
WiFi	Compliant protocols: IEEE 802.11b/g/n		Does not support Wi-Fi	
	2*2 MIMO, omnidirectional 5-dBi-gain antenna			
	Transmission rate: 300 Mbit/s			
	Coverage: 100 m without blocking			
	Rx sensitivity: -64dBm@MCS15			
	Tx power: 15 dBm			

Software features		
Layer 2 and Layer 3	Access	• Support route, bridge, NAT, interface mapping, DHCP, and UPnP to meet basic access requirements. • Comply with IEEE 802.11 and support managing MAC addresses and VLANs.
	Multicast	Support multicast IGMP Snooping and IGMP Proxy.
	Rate limiting	Support interface rate limiting and QoS rate limiting.
Voice		• Support SIP, H.248, and IMS_SIP. • Support auto-negotiation of voice coding and decoding by G.711a/u, G.723, G.726, and G.729. • Support fax and call statistics.
Advanced	VPN	Support IPSec VPN, L2TP VPN, and PKI management.
	QoS	Support priority mapping, traffic monitoring (CAR), traffic shaping, congestion management, and priority management.
	Security	• Support basic firewall, filtering web or MAC addresses, and access control. • Support anti-ARP attacks and anti-DDoS attacks. • Support authenticating WLAN users by MAC address, Web, and RADIUS; support detecting invalid IP addresses.
Maintenance and management		Support TR069 management, Web management, zero-configuration, and fast backup and restoration with the U-disk.

▼ Ordering information

Model	Description
MSG2100E-UPON-4V	• WAN interface: 1 EPON/GPON auto-negotiation optical interface • LAN interface: four 10/100/1000 Mbit/s Ethernet electrical interfaces, 4 voice interfaces, 1 WLAN interface compliant with IEEE 802.11b/g/n, 1 USB 2.0 interface and 2 omnidirectional antennas • Use 220 VAC (100–240 VAC) power.
MSG2100E-UPON-8V-AC	• WAN interface: 1 EPON/GPON auto-negotiation optical interface • LAN interface: eight 10/100/1000 Mbit/s Ethernet electrical interfaces, 8 voice interfaces, 1 WLAN interface compliant with IEEE 802.11b/g/n, 1 USB 2.0 interface and 2 omnidirectional antennas • Use 220 VAC (100–240 VAC) power.
MSG2100E-UPON-16V-AC	• WAN interface: 1 EPON/GPON auto-negotiation optical interface • LAN interface: four 10/100/1000 Mbit/s Ethernet electrical interfaces, 16 voice interfaces, 1 WLAN interface compliant with IEEE 802.11b/g/n, 1 USB 2.0 interface and 2 omnidirectional antennas • Use 220 VAC (100–240 VAC) power.
MSG2100E-UPON-32V-AC	• WAN interface: 1 EPON/GPON auto-negotiation optical interface • LAN interface: four 10/100/1000 Mbit/s Ethernet electrical interfaces, 32 voice interfaces, 1 USB 2.0 interface • Use 220 VAC (100–240 VAC) power.