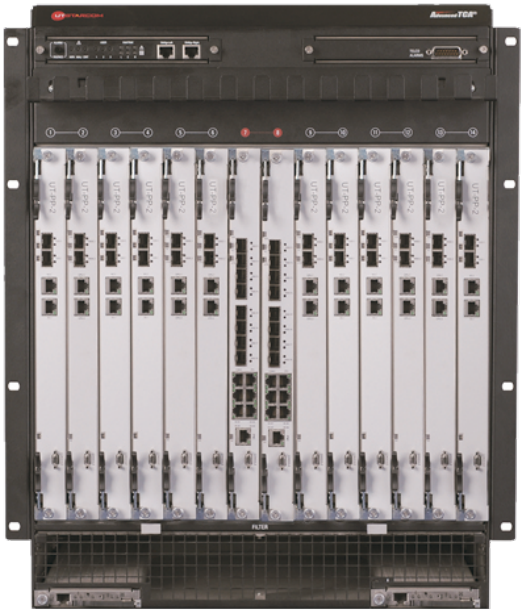
MSG10K Plus Multi-Service Gateway

MSG10K Plus is the world's first carrier-grade Multi-Service Gateway that combines routing, switching, WLAN gateway and access controller functionality into a unified multi-core system, and is designed to meet multiple services requirements with robust bandwidth for the next generation mobile networks. Unlike other wireless LAN systems, the MSG10K Plus supports layer2 and layer3 functions, and is ideal for the large-scale carrier-grade networks, to meet high performance and a high availability wireless LAN requirements that can be deployed in the core network to achieve robust AP centralized management and configuration.



Product Advantages

A wide range of Network Flexibility

MSG10K Plus is independent of access restrictions which can be deployed transparently in a variety of mobile networks such as 3G, 4G and Wi-Fi.

High Performance

MSG10K Plus provides very-high performance, thanks to the Dual CPU structure (8 cores and 32 threads per CPU) and Distributed Software Architecture. Supporting up to 700 users per second for DHCP and Authentication.

Large Capacity

Supporting up to 120,000 APs and 1,320,000 clients per device, the MSG10K Plus easily serves carrier-grade deployments.

Multi-Service Integration

MSG10K Plus seamlessly integrated with current fundamental mobile network technologies such as WLAN Gateway, BNG, Access Controller, etc. MSG10K Plus realizes data, VoIP and multimedia services with excellent service flexibility

Powerfully WLAN Gateway Functions

The MSG10K Plus integrates WLAN Gateway Functions, such as High performance DHCP server, DHCP relay, Broadcast Suppression, Lawful Interception, Various tunnels to carry the 3rd party APs, whitch include standard CAPWAP, EtherIP/GRE tunnels.

Excellent BNG ability

MSG10K Plus also can be deployed as a BNG/BRAS. Additional to the basic BRAS function, MSG provides some advanced features for transport network, better QoS architecture and safer authentication server protection, such as 802.1Q, ,OSPF, VRRP, HQoS, Web Authentication and EAP-SIM, etc.

Advanced Access Controller Features

Advanced wireless networking features include Centralized AP Management, Intelligent RF Management, Rogue/ Interference AP Detection, Loading Balance, Seamless L2/L3 Roaming, User based Rate-limiting, Hotspot 2.0 and Network Monitoring, etc.

High Availability

MSG10K Plus supports 1+1 real-time backup functionality. All services will be automatically switched to the backup devices seamlessly as soon as the device fails.

Supported Capacity

- Support up to 120,000 access points
- Support up to 1,320,000 users
- Support up to 1,536,000MAC addresses
- Support up to 4096VLAN per line card
- Support up to 240Gbps throughput

MSG10000 Plus Specification

Software Features

Layer-2 function	VLAN, Super VLAN, Link Aggreation Broadcast Suppression
Layer-3 function	Support DHCP server,DHCP relay Support VRRP protocol Support static routing protocol Support OSPF protocol
WLAN function	Hotspot 2.0 AP management and control Rogue AP detection Interference detection RF management Load balancing Support EtherIP (RFC3378), GRE, CAPWAP Performance monitoring and statistics Seamless roaming
Multimedia &QoS	HQoS (Base on VLAN, Port) Layer-2 and Layer-3 802.11e User Base Policy
High Redundancy	1+1 redundancy Active-active/active-standby

Security	Support Web portal authentication
Authentication types:	Support WISPr authentication Support MAC address authentication Support RFC 3579 RADIUS authentication Support RFC 3576 RADIUS authentication Support RFC 3580 IEEE 802.1X RADIUS Support a variety of EAP authentication: EAP-TLS, EAP-FAST, EAP-SIM/AKA
Authentication client:	Support RADIUS Client/Proxy Support LDAP/ SSL Secure LDAP Support TACACS+
Encryption:	Support WEP: 64 and 128bit Support TKIP Support CCMP/AES Support SSL,TLS: RC4 128-bit, RSA1024 and 2048bit Role-based user policy
Network Management	Configuration based on CLI Support Console,SSH,Telnet Syslog system monitor SNMP v1, v2c, v3

Hardware Features

Line card slot	12
RTM card slot	12
Switch card	2
Shelf manager card	2

Interface

Line card	2 x10GE
RTM card	10 x 1GE 2 x 10GE
Switch card	8 x10GE 4 x 10/100/1000BASE-T

Physical Characteristics

Dimension(W*D*H)mm	483x 507 x 572
Weight (kg)	75.5 Kg(full load)
Maximum power consumption	3400W(full load)
Environment	Temperature - Working temperature: 5°C～40°C - Storage temperature: -40°C～+85°C Humidity - Working humidity: 5%～80% - Storage humidity: 5%～95%
Direct power supply	Input voltage: -40.5 VDC～ -72 VDC Input current: 25A
Alternate power supply (optional)	Input voltage: 100VAC-250VAC Input current: 12.5A

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This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

The user manual or instruction manual for an intentional or unintentional radiator shall caution the user that changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment. In cases where the manual is provided only in a form other than paper, such as on a computer disk or over the Internet, the information required by this section may be included in the manual in that alternative form, provided the user can reasonably be expected to have the capability to access information in that form.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

-- Reorient or relocate the receiving antenna.

-- Increase the separation between the equipment and receiver.

-- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

-- Consult the dealer or an experienced radio/TV technician for help.