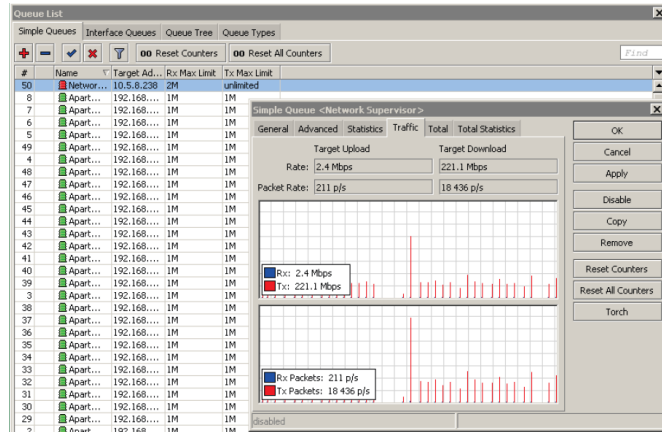


Altai Service Controller 1600

The Altai service controller 1600 is designed to be used in Altai Super WiFi systems as bandwidth controller, backbone router, firewall and VPN server.



The Altai service controller 1600 can support throughput of up to 24 million packets per second, or up to 16 gigabits – full wire speed.

With 36 Core CPU and 1.2 GHz clock per core, the Altai service controller provides the best-in-class bandwidth control performance. It can support for virtually unlimited number of tunnels, policy rules and queues, perfectly suit for WISP, mobile operators and various service providers.

Super High Throughput Capacity

Throughput	16 Gbps
Ethernet	12 GE ports
Number of user	2,500

Super Large Expansion Capability

The device comes in a 1U rack-mount case, has four SFP ports, twelve Gigabit Ethernet ports, a serial console cable and a USB port. The color touchscreen can displays device status, traffic graphs, or provide access to simple configuration options. It has two SODIMM slots, by default it is shipped with 4 GB of RAM, but has no memory limit in RouterOS, so it will accept and utilize 16 GB or more.

Necessary for WiFi Network

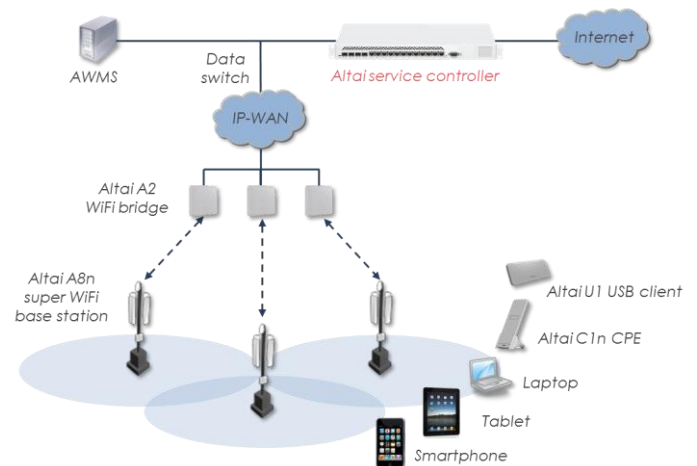
The Altai service controller 1600 is an essential network element for various WiFi network deployments such as city-wide wireless broadband Internet, hotzone, hotspot, wireless DSL and 3G data offload.



Benefits of using Altai Service Controller 1600

In all these applications, our solutions offer operational cost saving benefits such as quick deployment, ease of configuration and the ability to upgrade existing capacity to cater for new requirements (i.e. “pay as you grow”).

Altai service controller 1600 provides the most cost effective and versatile way for backend provisioning in terms of its functionalities and throughput capacity. When combined with the A8/A8n Super WiFi Base Station, it can create possibly the most cost-effective high capacity wireless broadband network system.



As an integral part of our Super WiFi network infrastructure, the Altai Service Controller 1600 can be used as:

- Bandwidth controller – take control of your network traffic bandwidth, limit data rates for all traffic passing through
- Backhaul router – up to 16 Gbps traffic throughput and failover protection or load sharing
- Firewall – filter traffic by IP address, address range, port, port range, IP protocol, DSCP and many more
- VPN server – connect remote sites and users together securely using VPN through Internet with IPsec encryption

Product Specifications

• CPU	Tilera Tile-Gx36 CPU (36-core)
• CPU Speed	1.2 GHz per core
• RAM	2 SODIMM DDR3 slots 2 x 2 GB DDR3 installed
• Storage	1 GB Onboard NAND
• Architecture	Tile GX
• Gigabit ports	12
• SFP ports	4
• Micro USB	Yes
• Standard forwarding	8 mpps
• Fastpath forwarding	24 mpps
• Throughput	Up to 16 Gbps
• Case	1U rack mount
• Display	Color touchscreen LCD

Firmware Support

• Firmware Version	ROS v6 (64bit), Level 6 License
• Wireless AP	Yes
• Wireless Client and Bridge	Yes
• RIP, OSPF, BGP Protocols	Yes
• EoIP Tunnel	Unlimited
• PPPoE Tunnel	Unlimited
• PPTP Tunnel	Unlimited
• L2TP Tunnel	Unlimited
• OVPN Tunnel	Unlimited
• VLAN Interfaces	Unlimited
• P2P Firewall Rules	Unlimited
• NAT Rules	Unlimited
• RADIUS Client	Yes
• Queues	Unlimited
• Web Proxy	Yes
• Synchronous Interface	Yes

Feature Highlight

Bandwidth Controller

- Network traffic control
- Limit data rate for all traffic passing through
- Hierarchical HTB QoS system with burst
- Per IP/ Protocol/ subnet/ port/ firewall mark
- PCQ, RED, SFQ, FIFO queues
- CIR, MIR, contention ratios,
- Dynamics client rate equalizing (PCQ)
- Bursts, peer-to-peer protocol limitation

Access Controller

- Captive portal
- MAC address authentication
- RADIUS support
- True plug-n-play access for network users
- Authentication of local network clients
- User accounting

Backbone Router

- Static routing, VRF
- Failover backup and load sharing
- Policy-based routing
- Interface routing
- Equal cost multi-path (ECMP) routing
- IPv4 RIP v1/v2, OSPFv2, BGPv4
- IPv6 RIPng, OSPFv3, BGP
- Bidirectional forwarding detection (BFD)

Firewall

- Stateful packet filtering; peer-to-peer protocol filtering
- Source and destination NAT
- NAT helper (H323, PPTP, quake3, SIP, FTP, IRC, TFTP)
- Classification by source MAC, IP address, address range (network or a list of network), address type, port, port range, IP protocols, DSCP
- Protocol options (ICMP, TCP and MSS); interfaces
- Internal connection, routing and packet marks
- ToS (DSCP) byte; content; matching sequence/ frequency; packet size, time

VPN Server

- IPsec – tunnel and transport mode, certificate or PSK, AH and ESP security protocols
- Point-to-point tunneling (OpenVPN, PPTP, PPPoE, L2TP)
- Advanced PPP features (MLPPP, BCP)
- Simple tunnels (IPIP, EoIP)
- 6to4 tunnel support (IPv6 over IPv4 network)
- VLAN – IEEE 802.1q virtual LAN support, Q-in-Q support
- MPLS based VPNs

DHCP and Proxy Servers

- DHCP – Per interface DHCP server; DHCP client and relay; static and dynamic DHCP leases; RADIUS support; custom DHCP options
- Proxy – HTTP caching proxy server; transparent HTTP proxy; SOCKS protocol support, DNS static entries; support for caching on a separate drive; parent proxy support; access control list; caching list

Tools

- Ping, traceroute
- Bandwidth test, ping flood
- Packet sniffer, torch
- Telnet, SSH
- E-mail and SMS send tools
- Automated script execution tools
- CALEA
- File fetch tool

Physical & Electrical Specifications

• Size (mm)	355 x 145 x 55 mm
• Temperature	Max temperature 50°C at 1.2 GHz; 70°C at 1GHz CPU core frequency
• Power	IEC C14 standard connector 110/220V (PSU included), up to 60W power consumption
• Extras	Reset switch, speed controlled fan, beeper, voltage, current and temperature monitoring

Product Ordering Information

Standard Package

- Service Controller 1600
- Built-in Level 6 Operating System Software

Contact Us

- Email: sales@altaitechnologies.com

SC-PB-130815

Although Altai has attempted to provide accurate information in these materials, Altai assumes no legal liability for the accuracy and completeness of the information. All specifications are subject to change without notice.