

MSC-1100 Network Service Controller

Session Authentication, Routing, Security, Metering & QoS

MSC-1100 Appliances

Broadband Session Controllers

Inventum's MSC appliances are service & subscriber aware broadband routers that ease the deployment of differentiated & metered broadband services.

Deployed in access networks as a *bump-in-the-wire*, MSC controllers are able to identify an individual subscriber's traffic and apply personalized network policies to specific flow(s). Each flow may be authenticated, rate limited and metered (volume & time).

MSC controllers can integrate with any standards compliant AAA (RADIUS) billing and authentication system, such as Inventum's UNIFY Service Management Platform.

Subscriber Identity Centric

Unlike traditional IP routers, MSCs maintain subscriber identity context against each traffic flow. This *context* allows the MSC to personalize each flow, each being a billable broadband service.

To enable greater personalization, MSCs support per subscriber routing tables, per subscriber IP filtering rules, per session metering of time/byte volume, policy based IP service separation, per subscriber committed (CIR) & burst (BIR) information rate and a host of other subscriber centric features.

Advanced Authentication

MSC controllers can be used to implement customized interactive and passive authentication schemes that ease subscriber acquisition and service sign-on. For example, portal login at WiFi hotspots using a dynamically generated one-time-password delivered over mobile SMS is easily implemented.

Authentication schemes may be constructed using any service linked attribute such as Ethernet MAC, source VLAN, IP, Sub-net, Web page login and mobile SIM.



Subscriber Portal & Service Selection

MSCs support integration with self-service portals including on-demand provisioning, dashboards and real-time service reporting. Virtually any enterprise application can be interfaced with the MSC controller using an XML API.

Multi-play, Service Aware Platform

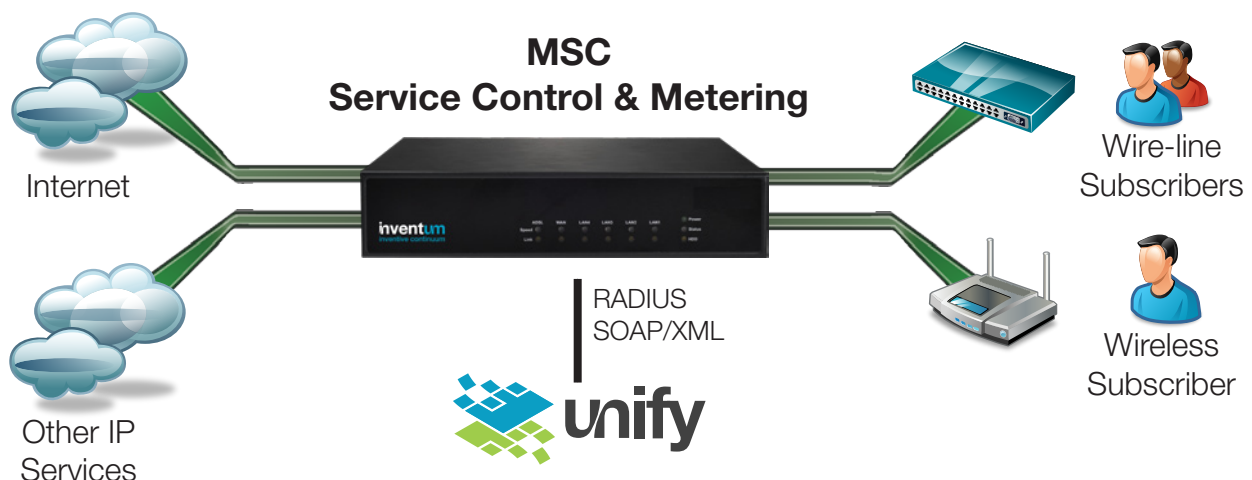
Define IP services (flows) using source & destination addresses of traffic, protocols, subscriber identities, VLAN & more. Each such pre-defined IP flow can be controlled, metered & billed by the MSC making it easy to implement destination based charging & other complex services.

Real-time Metering & Billing (Pre-Pay)

MSCs are perfect tools for deploying metered service plans with usage caps on data transfer volume and/or session duration. Using RADIUS, the MSC can authorize & meter traffic in real-time. The MSC can also implement quotas including automatic session termination or downgrade on balance expiry. MSCs provide full support for time-of-day, day-of-week, peak, off-peak and discounted usage plans.

MSC-1100 Series

The MSC-1100 series of controllers are ideal for entry level networks such as school & college campuses, hotzones, hotspots & small-medium businesses.



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Technical Specifications

Specifications	MSC-1101
Interfaces	<ul style="list-style-type: none"> • 1 x GE WAN, 4 x GE LAN (switch)
Console/USB	<ul style="list-style-type: none"> • 1 RJ-45 / 1 USB
Dimensions	<ul style="list-style-type: none"> • Desktop form factor • 210 x 44 x 190 mm (WxHxD) / 8.27 x 1.73 x 7.48 inches (WxHxD) • Weight 1.20 kg / 2.65 lb.
Networking	<ul style="list-style-type: none"> • Static, Dynamic (RIP) & Policy Routing • Virtual Routers per subscriber (VRT) • 802.1q VLAN & virtual interfaces • Caching DNS & DDNS support • DHCP Server with Relay (option 82), NAT, SNAT, DNAT & Policy NAT • PPPoE Client
Security (Firewall & Filtering)	<ul style="list-style-type: none"> • Unique Virtual Firewall per subscriber • Zone based firewall & filtering with DoS Attack prevention
Authentication	<ul style="list-style-type: none"> • Subscriber Portal (customized) • External RADIUS/LDAP authentication & 802.1x support • IP/MAC/VLAN address binding
Bandwidth Management	<ul style="list-style-type: none"> • Policy based traffic shaping • Per session CIR/BIR, customize on time-of-day, day-of-week & holiday • Bandwidth on demand (BoD) • Diffserv support
Subscriber Control & Metering	<ul style="list-style-type: none"> • VLAN, source & destination based service separation • Byte & time metering per session per service with quota enforcement • Automatic disconnection & downgrades • In session changes using XML API or RADIUS • URL blocking & IP filtering
Administration	<ul style="list-style-type: none"> • CLI SSH (Secure shell), Serial Console & XML API
Logging & Monitoring	<ul style="list-style-type: none"> • Remote Syslog support • Temporary internal Log buffer • SNMP v1/v2 • Lawful Tracking support
Power & Environmental	<ul style="list-style-type: none"> • AC/DC Adapter 60W, AC100-240V • Ambient Operating 0~40 C/32~104 F • Ambient Storage -20~70 C/-4~158 F • Humidity 5~ 95 % non condensing
Performance†	<ul style="list-style-type: none"> • 254 MAC Address Table with 50,000 Concurrent TCP Sessions • 70 Mbps Peak IP Forwarding Rate • Recommended for 100 concurrent users/subscribers†

†Estimates provided for convenience only. Subscriber count is variable based on session data rate, concurrency of transmission & network policies which may vary from network-to-network.

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october

ASIA & EMEA

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