

## Real-time Communications Solution

The Convergence Series is a scalable business solution which provides real-time communication (text, audio and video) over the Internet for remote branch offices, retail outlets, or even broadband telecommuters. As a smaller unit in the Convergence Series, the Convergence 4600/4610 provides services for up to 5,000/10,000 users.

### Guaranteed Compatibility

The Convergence 4600/4610 is a fully RFC 3261 compliant SIP Proxy – Registrar as well as B2BUA. As such it can act in conjunction with a SIP PBX to provide for example Voice Routing, Survivability, Call Admission control or similar functionality, ENUM Lookup, Call Priorization, Transcoding and other features.

### Enterprise Class Network Security

Simplicity and maximum security are no paradox – they have become reality with the Convergence 4600/4610. In addition to the state of the art firewall with Layer 7 Traffic classification as well as VPN functionality, the Convergence 4600/4610 features the use of encrypted voice signaling and management protocols. With 2 LAN and one DMZ interface, there is also the possibility to configure different security zones even on the LAN side.

### Key Differentiator: Session Border Controller

Contrary to many other branch office solutions, the Convergence 4600/4610 can also act as a Session Border Controller for voice scenarios thus controlling real-time traffic flows in and out of the branch office. This makes it the first single box branch connectivity solution for VoIP Enterprise or VoIP Centrex scenarios.

### High Performance, Great Flexibility

The Convergence 4600/4610 is suitable as a universal network building block for service providers and large enterprises to effectively integrate real-time communication capabilities into their existing networks.

The Convergence 4610 can handle 10000 users and scale up to 2000 concurrent calls in a single, resistant 19" chassis; call proces-

sing performance can be scaled independently to achieve over 750 calls per second.



### Firewall

- Stateful inspection Firewall NAT/PAT
- Configurable port forwarding (DNAT)
- Intrusion detection
- All standard protocols supported: DNS, FTP, SSH, TELNET, POP3, SMTP, HTTPS, HTTP, NTP, Ping, SNMP
- Including application-aware inspection engines securing protocols such as H.323, FTP
- Application aware rule definitions for more than 50 protocols as for example HTTP, FTP, eDonkey, AIM, IRC, SMTP, RDP, ...
- Strict TCP Validation to ensure TCP session state enforcement, validation of sequence and acknowledgement numbers, rejection of bad TCP flag combinations
- Protection against ping of death, land attack, tear drop, Syn Flood, ICMP flood, UDP flood, IP spoofing, IP address sweep attack, Win Nuke
- TCP reassembly for fragmented packet protection



- Malformed-packet protections
- Protocol-anomaly protection
- Stateful protocol signatures

### Routing

OSPF/BGP dynamic routing, RIPv2, Static routes, Source-based routing, GRE Tunneling, Multicast Routing, VRRP Support

### VPN

- IPSec, OpenVPN (TLS based VPN)
- Unlimited number of VPN-tunnels
- L2TP over IPSec
- Point-to-Point VPN or Roadwarrior configurations possible
- VPN connections from 2nd LAN interface supported (e.g. Access Point connected to second LAN)
- Encryption: AES (up to 256 Bits), 3DES (168 Bit), IDEA (128 Bit), Blowfish, variable key length
- Authentication: X.509 digital Certificates (RSA), Shared Secrets, HMAC-MD5, HMAC-SHA-1
- Perfect forward secrecy
- Secure ethernet bridging, real-time adaptive link compression<sup>1</sup>
- NAT for VPN subnets

### Voice Features

- SIP Proxy Server (RFC3261)
- SIP Registrar
- SIP Redirect Server
- SIP TLS
- B2BUA with Transcoding
- SIP Session aware RTP Proxy for VoIP NAT support

### Voice Scenarios

- Voice over VPN
- Voice NAT
- Branch Survivability
- Call Admission Control based on available Bandwidth
- Emergency Call Priorization
- ENUM
- Forced Media Routing
- Accounting

### Management

Web Interface and SSH, Local Console (VGA, USB; Serial), Admin Tools on Appliance: tcp dump (traffic dumper), nmap (port scanner), hping (advanced ping), netcat (general TCP&UDP utility)

### QoS / Traffic Control

- Classification by Physical Port, Virtual Firewall Rule, Session, L7 protocol
- Bandwidth Guarantees
- Bandwidth Limits

- Many Queuing disciplines e.g. Token Bucket, Stochastic Fairness Queuing, CBQ, IMQ, CSZ, Diffserv mark, RED, WRR, ...

### Performance

- 500 Mbps throughput packet filter
- Up to 5000 (10000 with Convergence 4610) >> Upgrade from Convergence 4600 to 4610 available) simultaneous SIP users
- Up to 1000 (2000 with Convergence 4610) concurrent calls

### Differentiating Features

- Scripting Support for very customized scenarios
- Scheduled Scripting Support
- Failsafe Update (Dual Firmware Flash)

### Miscellaneous

- DHCP Server / Relay
- DNS Server
- PPoE, PPTP Support
- Separate LAN Interface 2nd LAN, Separate DMZ Interface
- DynDNS support
- Unlimited number of hosts in DMZ
- Meets IMS requirements

### Hardware

- 6 Gigabit Ethernet Interfaces
- 2 x USB
- 2 X RS232
- Redundant power supply (460W)
- AC / DC 90~264VAC full range @ 47~63HZ

### Dimensions

- Height 8.8 cm
- Length 53.0 cm
- Width 42.4 cm

### Certifications

EN 55022, EN 55024, EN 61000-3-2, EN 61000-3-3, FCC Rules Part 15 / Subpart B, IEC / EN 60950-1, UL 60950-1, Marks: CE, FCC, UL

<sup>1</sup> with OpenVPN

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