Alcatel-Lucent
OpenTouch
Session Border Controller

Protect SIP trunks and enterprise communications with a highly secure SIP perimeter defense solution

The Alcatel-Lucent OpenTouch® Session Border Controller (OpenTouch SBC) addresses the communication security needs of mid-sized and large organizations by protecting them from malicious VoIP attacks, SIP denial of service, and fraud and eavesdropping.

As a highly secure software solution for perimeter defense, OpenTouch SBC acts as the demarcation point between the enterprise and SIP trunking providers. OpenTouch SBC also protects mobile workers and secures their SIP audio and video communications over the internet.

<table>
<thead>
<tr>
<th>Features</th>
<th>Benefits</th>
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</thead>
<tbody>
<tr>
<td>Enterprise perimeter defense against SIP denial of service, fraud and eavesdropping</td>
<td>Security: Reinforces firewalls with dedicated protection against SIP-based attacks</td>
</tr>
<tr>
<td>Secure and scalable SIP/media connectivity, audio transcoding and network address translation (NAT) traversal for audio and video communications</td>
<td>Cost-saving: Ensures cost-effective, secure conversations over the internet and with SIP service providers</td>
</tr>
<tr>
<td>Web-based management with built-in configuration templates: settings and protocol adaptations for certified SIP trunking providers can be configured in a few clicks</td>
<td>Cost-effective interoperability: Offers protocol adaptations for many SIP trunking providers</td>
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<tr>
<td>Redundant servers with SIP and media session preservation</td>
<td>Business continuity: Offers always-on, off-net and mobile communications</td>
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<tr>
<td>VMware vSphere Hypervisor and Microsoft Hyper-V support</td>
<td>Agile operations: Leverages virtualization infrastructure and skills</td>
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</tbody>
</table>
**Technical specifications**

**Solutions**
- SIP trunking security solution for:
  - Alcatel-Lucent OmniPCX® Enterprise Communication Server 11.2 and above
  - Alcatel-Lucent OpenTouch® Business Edition 2.2 and above
- SIP remote worker security solution for:
  - Alcatel-Lucent OmniPCX Enterprise Communication Server 11.2 and above
  - Alcatel-Lucent OpenTouch Business Edition 2.2
  - Alcatel-Lucent OpenTouch® Multimedia Services 2.2
- SIP topology hiding: SIP headers that disclose internal IP topology are removed or modified
- Secure SIP over Transport Layer Security (TLS) (SIPS): Encryption and authentication of SIP messages, over WSS for WebRTC
- Secure Real-time Transport Protocol (SRTP): Encryption of audio and video streams SDES and DTLS crypto key negotiation
- Dynamic audio and video port firewall pinholing
- Signature based SIP Intrusion Detection System (IDS) and dynamic blacklisting
- SIP authentication (http digest) of clients and gateways
- Enhanced media latching

**Management**
- Secured web-based management
- Zero user management: Provisioning of directory number, SIP user information and security credentials are delegated to the communication server
- Simple Network Management Protocol (SNMP)
- Built-in SBC wizard application for SIP trunking and remote worker scenarios
- Multi-Tenancy for Open Touch Enterprise Cloud

**Business continuity**
- Alternative routing and load balancing:
  - Detects lost connectivity to the communication server and to the SIP provider’s proxy servers, and routes to alternative servers
  - Supports OmniPCX Enterprise geographic redundancy
  - Supports load balancing across a pool of SIP provider proxy servers
  - Least-cost routing (based on date, time and cost)
  - High-availability option: Active/standby two-server redundancy
  - Active SIP and media sessions are preserved
  - Virtual IP
  - Software upgrade without interruption

**Interoperability and protocols**
- SIP B2BUA: SIP transparency
- WebRTC gateway
- RFCs partially supported: RFC 4235
- Transport mediation: SIP over UDP to SIP over TCP, or SIP over TLS, or SIP over WSS
- SIP call-flow mediation
- Real-time audio mediation option: RTP to SRTP encryption
- Extensive SIP profile configuration with third-party SIP Providers
- Extensive SIP signaling interworking: 3xx forwarding Termination, Refer to Reinvite, Diversion Header to History Info, Prack and Update termination
- Programmable header manipulation: Ability to add, modify and delete headers
- Programmable SDP manipulation: Codec list rewriting
- Programmable routing methods: Request URL, source/destination IP address, fully qualified domain name, ENUM, Lightweight Directory Access Protocol
- Uniform resource identifier (URI) and number manipulations:
  - URI user and host name manipulations
  - Ingress and egress digit manipulations
- NAT traversal: Local and far end NAT traversal for support of remote workers
- Audio and video codec filtering
- Audio software transcoding
  - inband DTMF
  - G711A/G711Mu

**Media quality and reporting**
- Packet marking: 802.1p/Q VLAN tagging, DiffServ, TOS
- Media Anchoring or Direct Media
- Transparent media: Low latency, unprocessed payload transfer
- Voice quality measurement: Voice quality call detail record generation
- RTP Control Protocol-XR support with SIP Publish
- Call Admission Control on media bandwidth, including audio and video
- Allocation of a minimal number of sessions to dedicated SIP interfaces
- Alternative routing based on quality and bandwidth

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**Capacity and recommended hardware**

<table>
<thead>
<tr>
<th>Capacity and recommended hardware</th>
<th>Virtual edition high end</th>
<th>Virtual edition medium</th>
<th>Virtual edition low end</th>
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</thead>
<tbody>
<tr>
<td>Max. SIP endpoints/TLS sessions</td>
<td>6000/6000</td>
<td>6000/6000</td>
<td>1000/1000</td>
</tr>
<tr>
<td>Max. SIP Sessions</td>
<td>4000</td>
<td>2000</td>
<td>250</td>
</tr>
<tr>
<td>Max. RTP/SRTP</td>
<td>4000</td>
<td>2000</td>
<td>250</td>
</tr>
<tr>
<td>VMware vSphere Hypervisor version 5.5 to 6.5/ Hyper-V Microsoft Server 2012 R2 and above</td>
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<tr>
<td>vCPUs/GB RAM/GB HDD</td>
<td>4vCPUs/16 GB RAM/10 GB HDD</td>
<td>1vCPU/8 GB RAM/10GB HDD</td>
<td>1vCPU/2 GB RAM/10 GB HDD</td>
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<tr>
<td>Transcoding</td>
<td>by adding 4 vCPUs</td>
<td>by adding 1 or 3 vCPUs</td>
<td>N/A</td>
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