SIP Proxy

... Advanced Simplicity

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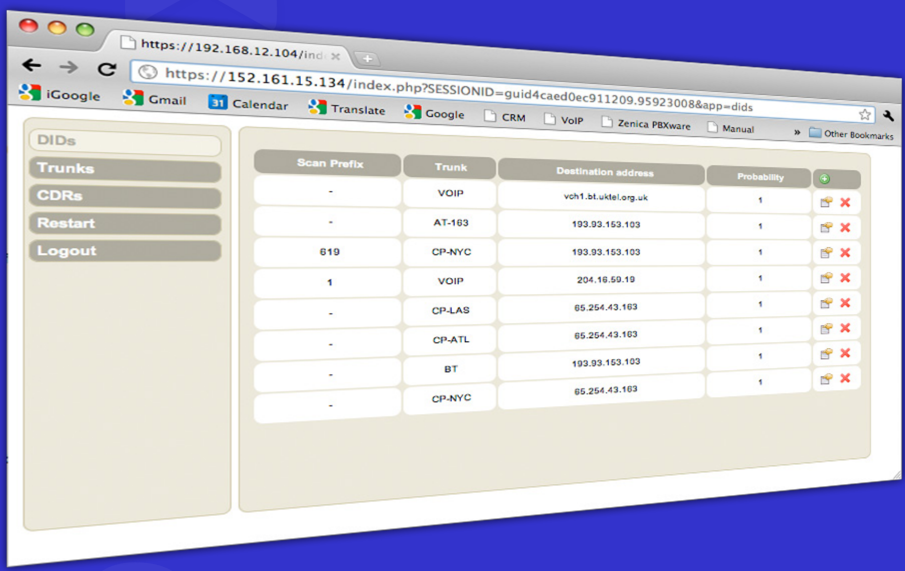


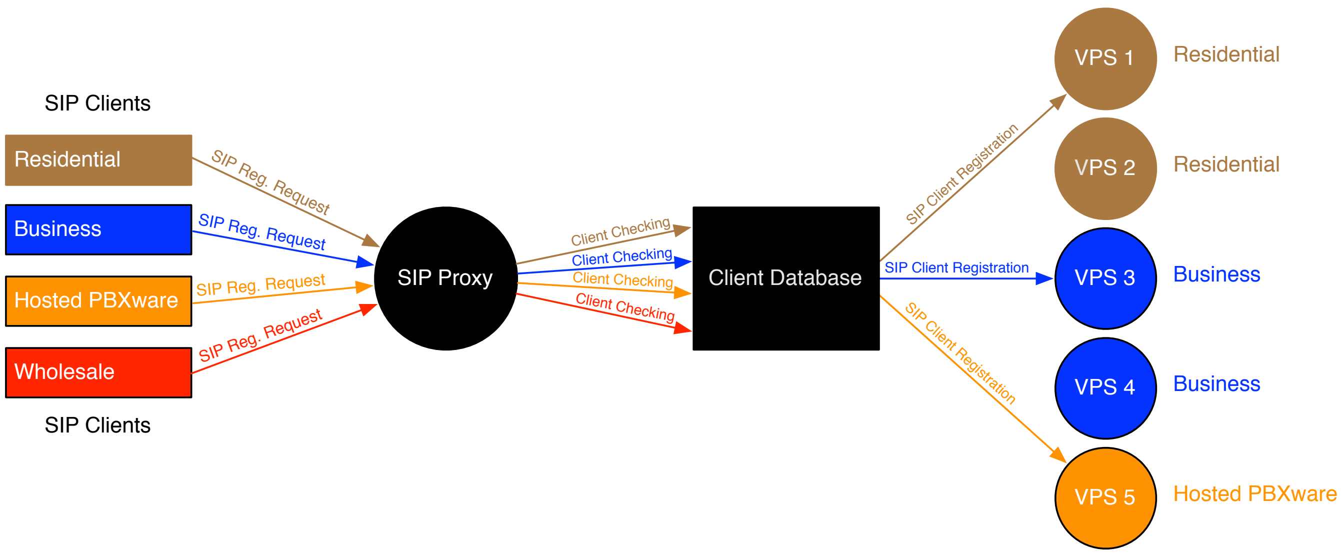
Session border controller solution offering high performance, security and SIP compliance connectivity.

SIP Proxy

1
DIAGRAM

SIP Proxy: Registration

SIP Client registration for all users (Residential, Business, Hosted PBXware and Wholesale) happens over SIP Proxy, which authenticate user “username”, “password” or “IP address” in order to determine where the user belongs to, then forwards SIP registration to the appropriate VPS, except when it comes to the Wholesale type of user which does not register to the VPS but only to the Client Database.



2 DIAGRAM

SIP Proxy: Outgoing/Incoming Calls for Residential & Business Users

Outgoing/Incoming Calls for Residential & Business users, SIP Proxy will first send those type of users to their appropriate VPS in order to check for their Enhanced Services permissions.

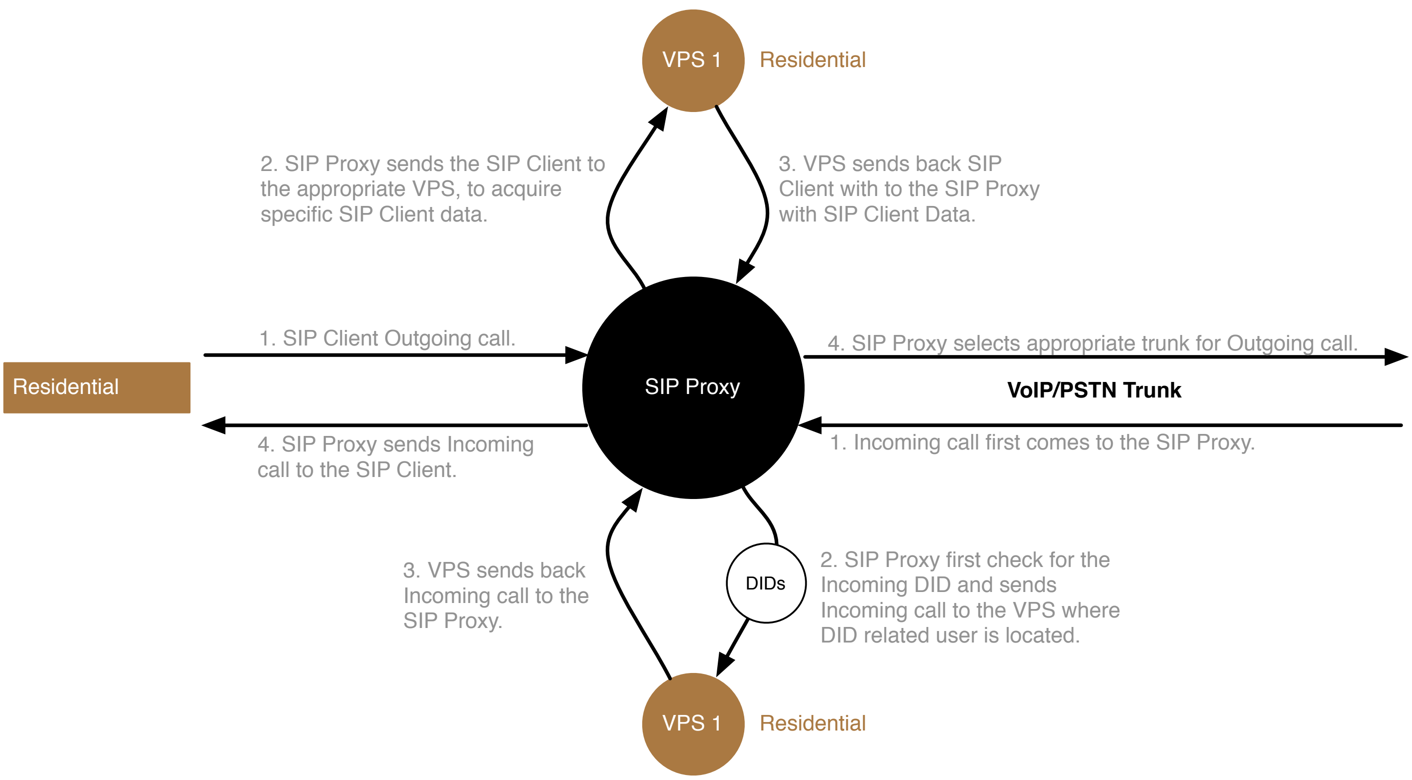
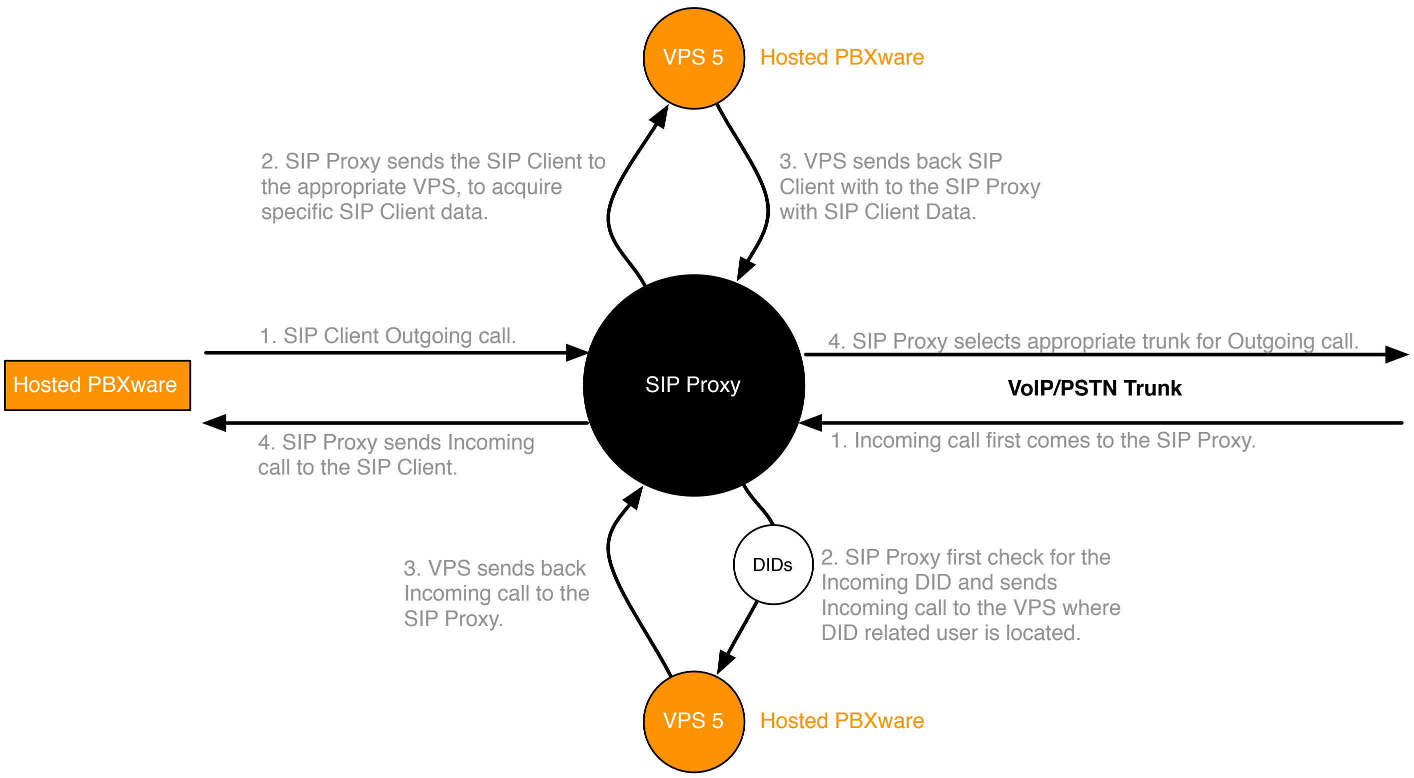


Diagram shows example for Outgoing/Incoming Calls for Residential type of user.

3 DIAGRAM

SIP Proxy: Outgoing/Incoming Calls for Hosted PBXware Users

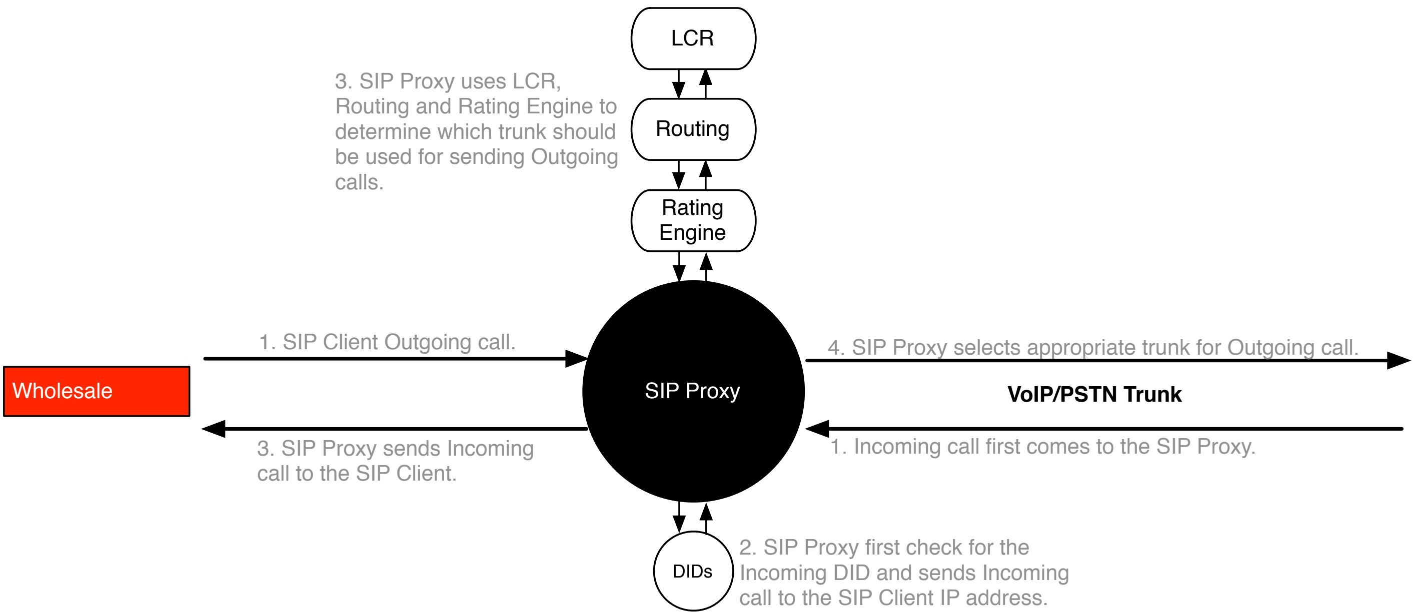
Outgoing/Incoming Calls for Hosted PBXware users, SIP Proxy will first send those type of users to their appropriate VPS in order to check for their Enhanced Services permissions.



4 DIAGRAM

SIP Proxy: Outgoing/Incoming Calls for Wholesale users

For Wholesale users, SIP Proxy sends the call straight through appropriate trunk as per client data which involve settings in LCR, Routing and Rating Engine.



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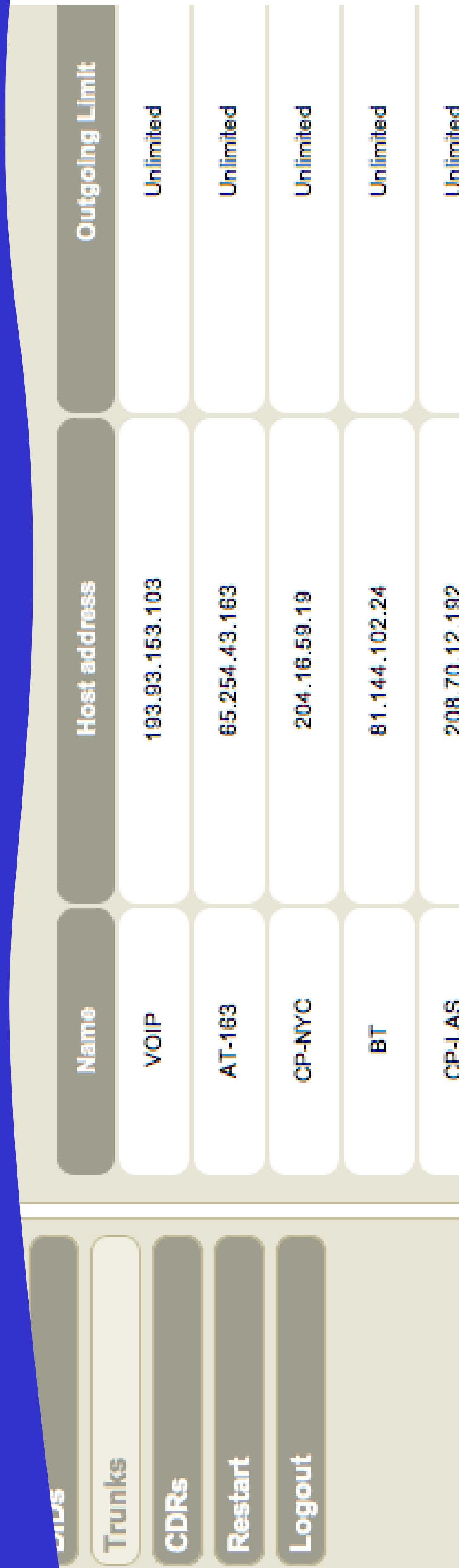
Security Protection From
- Malicious attacks such as denial of service (DOS) or Dis tributed DOS
- Toll fraud via rogue media streams
- Topology Hiding
- Malformed Packet Protection

Powerful SIP Server
- Registrar server
- Location server
- Proxy server
- SIP Application server
- Redirect server

High Flexibility
- Suitable for embedded devices, mall footprint
- Ability to add new extensions, Plug&Play module interface
- Modular architecture

Asynchrony & Processing
- TCP handling
- SIP message processing
- Inter-process message queues communication system



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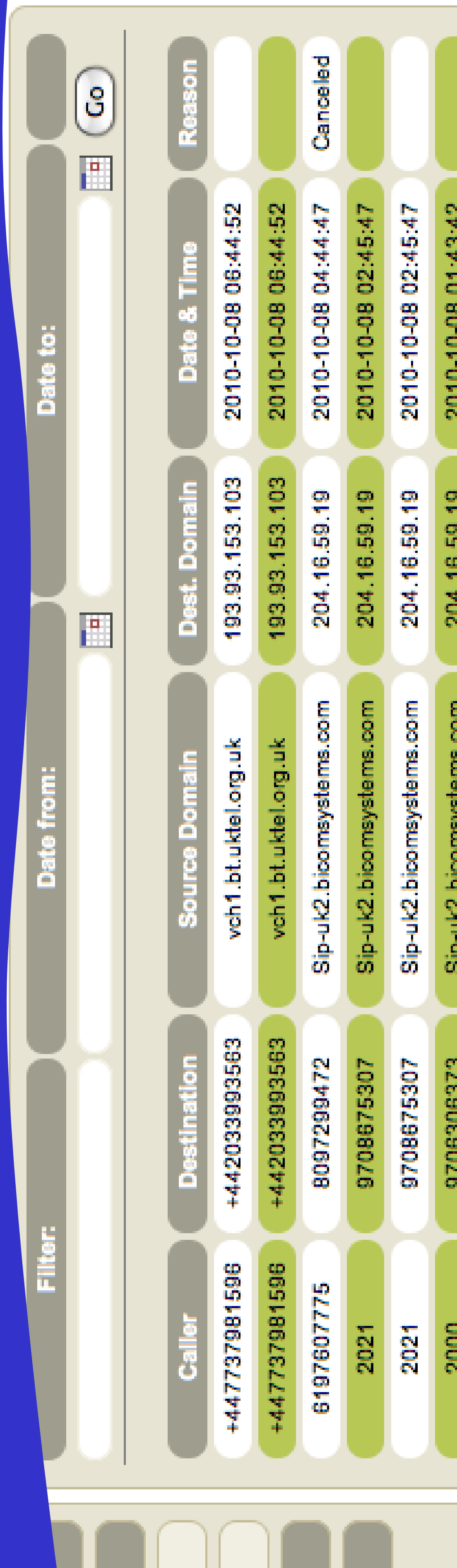
SIP Routing Capabilities
- Stateless and transactional stateful SIP Proxy processing
- Serial and parallel forking
- NAT traversal support for SIP and RTP traffic
- Load balancing with many distribution algorithms and failover support
- Flexible least cost routing
- Routing failover
- Replication for High Availability (HA)

Connectivity Techniques
- NAT traversal
- SIP normalization via SIP message and header manipulation

Transport Layers
- Transport layer gatewaying (IPv4 to IPv6, UDP to TLS, a.s.o.)
- SCTP multi-homing and multi-streaming

Statistics & Billing Information
- CDR (Call Details records)
- Session Usage Based Information
- Full Login Capabilities



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Communication & Secutiy

- SIP User authentication
- IP and Network authentication
- TLS support for SIP signaling
- Transparent handling of SRTP for secure audio
- TLS domain name extension support
- Authentication and authorization against database (MySQL, PostgreSQL, UnixODBC, BerkeleyDB, Oracle, text files), RADIUS and DIAMETER

IP and DNS

- Support for SRV and NAPTR DNS lookups
- SRV DNS failover
- ENUM support
- Internal DNS caching system
- IP level Blacklists
- SUPPORT FOR Multi-host and multi-domain
- Protect network architecture wid hidding IP addresses in SIP headers to

Accounting

- Event based accounting
- Configurable accounting data details
- Multi-leg call accounting
- Radius or Diameter database storage

Rich Communication Services

- SIP SIMPLE Presence Server
- User Agent Presence
- XCAP support
- Presence DialogInfo support – SLA/BLA
- Instant Messaging

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Monitoring and Troubleshooting

- SNMP – interface to Simple Network Management Protocol
- Config file step-by-step debugger
- Remote control via XMLRPC
- Internal statistics exported via RPC and SNMP
- Flexible debug and error message logging system – log custom messages including any header or pseudo-variable and parts of SIP message structure.

Extensibility APIs

- Perl Programming Interface – embed your extensions written in Perl
- Java SIP Servlet Application Interface – write Java SIP
- Servlets to extent your VoIP services and integrate with web services
- Lua Programming Interface
- Python Programming Interface

Scalability and Flexibility

- Unlimited Concurrent Sessions
- Flexible SIP Clustering
- Global Networking capability

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Quality of Service

The QoS policy of a network and prioritization of flows is usually implemented by the SBC. It can include such functions as:

- Traffic monitoring
- Resource Allocation
- Rate Limiting
- Call Admission Control
- TOS/DSCP bit setting

Interconnectivity

- Straightforward interconnection with PSTN gateways
- Gateway to sms or xmpp and other IM services
- Interoperability with SIP enabled devices and applications such as SIP phones (Snom, Cisco, etc.), Media Servers (Asterisk, FreeSwitch, etc.)

Regulatory Support

- Emergency calls prioritization
- Lawful interception

BICOM SYSTEMS

SIP Proxy

About The Company

Vision Statement

We Unify Communications

Mission Statement

We provide the Communication World with the most Complete Turnkey Communication Systems available by Creating, Unifying and Supporting the Most Advanced of Current Technologies.

Overview

Bicom Systems was the first company to deliver Open Source Communications Software as Professional Turnkey Solutions.

By combining the best of open source telephony and its own proprietary software Bicom Systems can provide enterprises with turnkey solutions that take account of the clients' exact needs within a very cost-effective framework - giving CIOs the safest choice. This mix includes royalty-free software, vibrant open source communities, available custom development backed up by accountable, professional support services.

The company finds innovative open source communication projects and professionalizes the project by creating, unifying and supporting turnkey systems with its proprietary in-house software. Bicom Systems provides the resources, core development and support services to enable popular open source projects to scale into enterprise-class communications software.

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