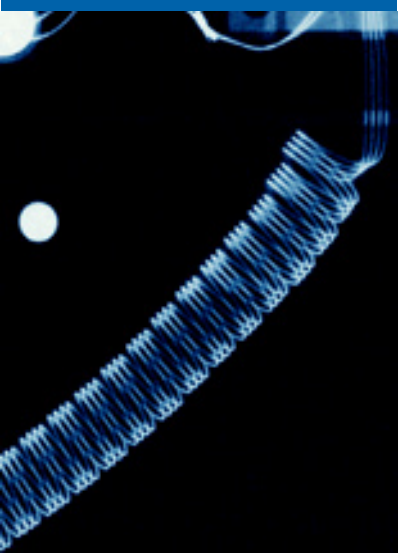
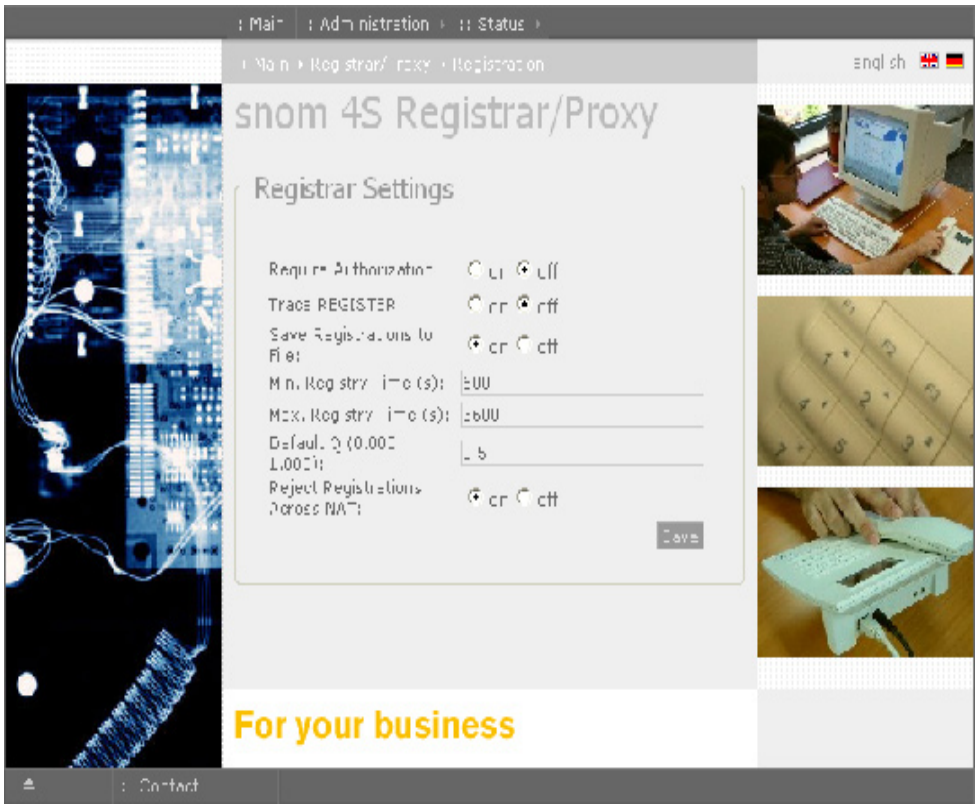
snom 4S
SIP Registrar/Proxy

Key Features

- SIP Proxy, Registrar and Location Server
- Stateful Forking Proxy
  - Scripting Interface
- Multiple Domain Hosting
  - UDP and TCP Transport Layer
- RADIUS and XML Billing Interface
  - ENUM Support
- DNS SRV
  - Redundancy Support
- Presence & Instant Messenging Support
  - Integrated Registrar and Location Server
- User-based Access Control (MD5)
  - Web Interface Maintenance
- Available for Microsoft™ Windows™ 2000, XP and Linux
  - Entry Level, SME and Professional Edition





The snom 4S Registrar/Proxy is a SIP forking proxy according to RFC 3261.

The proxy is available in Microsoft Windows and Linux versions. The Microsoft Windows version runs as Windows service, the Linux version as daemon.

The proxy comes in three flavours. The entry model is intended for customers that want to set up a small VoIP network and do not need advanced features. The SME version addresses the medium size company with up to 50 users and provides the most relevant SIP features to the user-agents. The Xperienced version adds features that address SIP based telephony operators with large subscriber numbers.

The proxy supports DNS A/CNAME and DNS SRV based location of destinations. This allows fault redundant setup of network components like media servers. The proxy automatically falls back to UDP transport layer if TCP is not available. This allows seamless operation of RFC2543 compliant equipment supporting only UDP. By supporting ENUM address lookup the proxy can offer new services.

The proxy supports the latest routing scheme (loose routing), however also handles old-style strict routing. The proxy is always in the routing path, which enables features like call logging which can serve for billing purposes in the Xperienced model.

The RADIUS billing interface interoperates with existing billing solutions. Additional XML-support for billing allows customized billing solutions. For SME usage, a simple

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web-based interface gives access to the recent calls that were made in the proxy domain. The web interface gives extensive debug support to trace the message flow through the proxy sorted by successful and unsuccessful calls.

Registrations may include path headers. This feature allows user agents to register through NAT application layer gateways and makes sure that user agents are adressable behind NAT. Saving registration information to the file system makes system recovery seamless (e.g. after reboot). The proxy automatically inserts STUN indication headers, which allow plug-and-play installation of phones using STUN.

If the proxy itself is inside NAT, outgoing packets may be sent through a NAT gateway. That allows operating an NAT application layer gateway parallel to a firewall.

The build-in dial plan can be used to give explicit access or denial to patterns, e.g. international numbers. It can also be used to implement a location specific dial plan that informs the user agent if a number is incomplete. The proxy forwards request to a number of gateways depending on their destination. The scripting programming language gives precise control over the features of the proxy like gateway changes on busy.

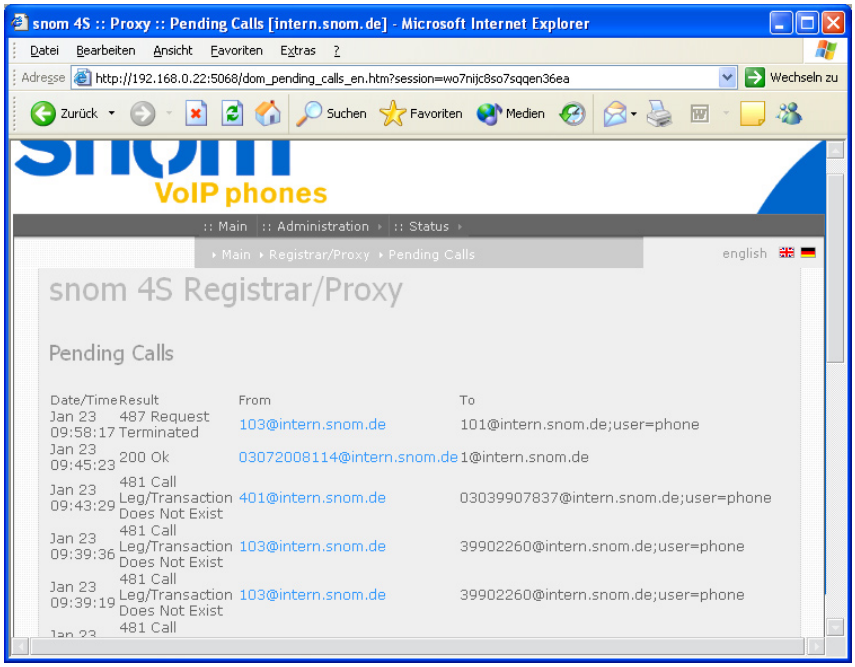
The Find-Me feature searches registered users in parallel according to the probability that was provided with their registration. Using this feature, several user agents may be called parallel and after other until a user picks up. Registering a mailbox redirects calls to the mailbox even if the respective user agent is available (e.g. PC turned off).

User-based authentication challenges users using the MD-5 algorithm. This way the client base of the proxy can be restricted to a list of known users and their rights can be controlled using generic patterns (e.g. access to international numbers).

Sending instant messages is implemented according to the proxy rules of SIP. Additionaly, non-deliverable messages are stored temporarily until users log in. Subscribers are informed about the presence of subscribers.

The proxy keeps only little state information. This makes it possible to scale the proxy well into operator business. The proxy keeps domains completely seperate, so that service providers can host many domains with only one proxy.

When the proxy returns an error-code, it may insert Error-Information headers that inform users about the error reason using a media server.



snom 4s SIP Registrar/Proxy Datasheet
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