

TekSIP - SIP Registrar and SIP Proxy for Windows.

Introduction

TekSIP complies with RFC 3261, RFC 3263, RFC 3311, RFC 3581 and RFC 3891. It supports NAT traversal and ENUM. You can select IP address to be listened and default SIP endpoint for outgoing calls. You can also log session details into a log file and monitor active registrations and sessions in real-time. TekSIP has a built-in Presence Server (*SIP/SIMPLE based*).

TekSIP also supports UPnP IGD specification. If installed behind UPnP supported Internet gateway device (*ADSL router e.g.*), TekSIP automatically detects if it is behind a new NAT gateway and the external IP address. All outgoing requests manipulated for NAT traversal. You do not need to add manual reverse mappings for SIP and RTP protocols.

TekSIP can optionally act as a B2BUA for incoming 3xx SIP responses. TekSIP Supports RADIUS Authentication (*RFC 2865*) and RADIUS Accounting (*RFC 2866*) with the method described in **draft-sterman-aaa-sip-00.txt** and **draft-schulzrinne-sipping-radius-accounting-00.txt** respectively. TekSIP runs as a Windows service.

TekSIP also provides single accounts proxy; if you have just one provider account and many internal clients, TekSIP proxies all external calls for the provider account. TekSIP can register to upstream SIP servers to receive incoming calls.

TekSIP also checks if it is installed behind an UPnP supported NAT gateway. If so, TekSIP automatically detects external IP and display it on status bar. TekSIP also adds a reverse mapping for incoming UDP connections automatically (*Default UDP port 5060*).

You can re-direct calls to a voice mail server if user is unavailable to answer (*Busy or off-line*).

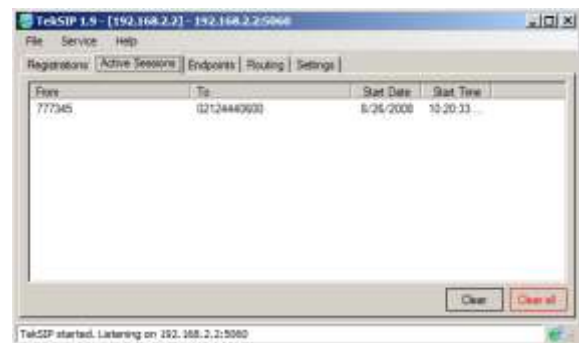


Figure - 2. Active Sessions Tab

You can monitor active registrations and SIP sessions through GUI in real-time. TekSIP provides many messages when problems occur. You can see error messages on TekSIP Status bar or in the log file of TekSIP service. You can enable logging in Settings Tab. There are three levels of logging; None, Errors, Sessions. If you select Errors TekSIP logs just error messages. If you select Sessions both Session and Error messages will be logged. You have to save or apply settings changes if you change logging level setting. TekSIP log files can be found in the application directory.

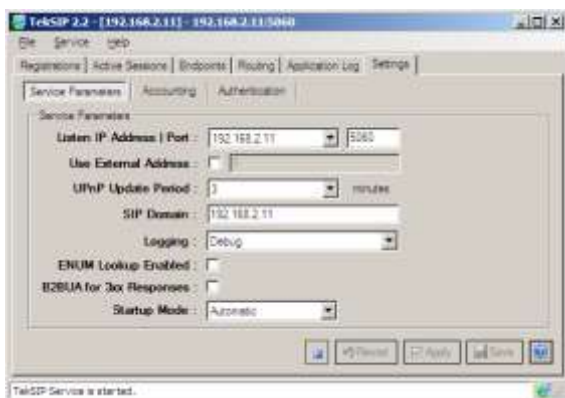


Figure - 1. TekSIP Settings / Service Parameters

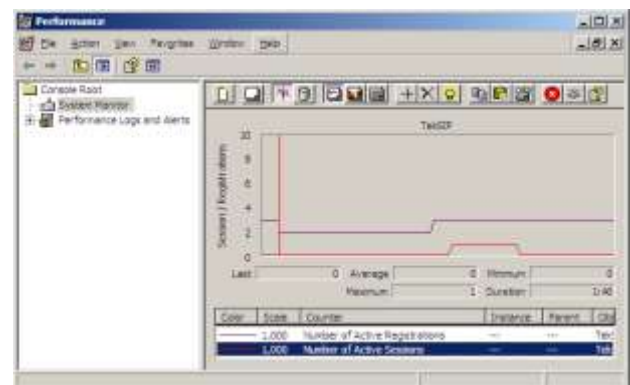


Figure - 3. TekSIP counters on Windows Performance Monitor

TekSIP also utilizes Windows Performance Monitor providing two counters; one for number of active registrations and other for number active sessions. You can add and monitor them using Windows Performance Monitor (*Perfmon.exe*).

TekSIP can act as a RTP Proxy and record audio streams if RTP proxy enabled. Recorded audio streams are saved in wave format can be played using TekSIP Manager.

TekSIP monitors failed registration and call attempts from suspicious endpoints and blacklists them. You can monitor black listed endpoints through TekSIP Manager and you can remove black listed endpoints from quarantine list if required. You can also ban specific user agents.

System Requirements

1. A Windows system with at least 1024 MB of RAM.
2. Microsoft.NET Framework v2.0.50727 (Min.)
3. 2 MB of disk space for installation.
4. Administrative privileges.

Supported SIP RFCs

RFC 2617 HTTP Authentication: Basic and Digest Access Authentication

RFC 2782 A DNS RR for specifying the location of services (DNS SRV)

RFC 2976 SIP INFO Method

RFC 3261 SIP: Session Initiation Protocol

RFC 3262 Reliability of Provisional Responses in the Session Initiation Protocol (SIP)

RFC 3265 Session Initiation Protocol (SIP)-Specific Event Notification

RFC 3428 Session Initiation Protocol (SIP) Extension for Instant Messaging

RFC 3515 The Session Initiation Protocol (SIP) Refer Method

RFC 3842 A Message Summary and Message Waiting Indication Event Package for the Session Initiation Protocol (SIP)

RFC 3856 A Presence Event Package for the Session Initiation Protocol (SIP)

RFC 3857 A Watcher Information Event Template-Package for the Session Initiation Protocol (SIP)

RFC 3863 Presence Information Data Format (PIDF)

RFC 3891 The Session Initiation Protocol (SIP) "Replaces" Header

RFC 3892 The Session Initiation Protocol (SIP) Referred-By Mechanism

RFC 3903 Session Initiation Protocol (SIP) Extension for Event State Publication

RFC 4480 RPID: Rich Presence Extensions to the Presence Information Data Format (PIDF)

RFC 4660 Functional Description of Event Notification Filtering

RFC 5262 Presence Information Data Format (PIDF) Extension for Partial Presence

RFC 5263 Session Initiation Protocol (SIP) Extension for Partial Notification of Presence Information

Feature List

		TekSIP Enterprise	TekSIP SP
Protocols			
	Transport	TCP, UDP	TCP, UDP
	Signalling	SIP	SIP
	Media	RTP	RTP
SIP Proxy			
	Authentication	√	√
	NAT Traversal	√	√
	Redirection	√	√
	DNS SRV Resolution	√	√
	ENUM	√	√
	B2BUA	√	√
	Routing Table		
SIP Registrar			
	Authentication	√	√
	Presence Agent	√	√
	Provider Registration	√	√
RTP Proxy			
	Audio Recording	√	√
NAT Traversal			
	SIP received method	√	√
	UPnP Client	√	√
	RTP Proxy	√	√
Win32 GUI			
	User Management	√	√
	Routing Management	√	√
	Registered Client List	√	√
	Active Calls	√	√
	Application Log	√	√
	Configuration Management	√	√
	Windows Performance Counters	√	√
Web GUI			
	Registered Client List	√	√
	Active Calls	√	√
	Application Log	√	√
	Windows Performace Counters	√	√
Security			
	Blacklisting	√	√
	SIP User Agent Banning	√	√
	RADIUS Authentication/Accounting	√	√
VoIP Authorization			
	RADIUS Authorization		√