

## Smartvox OpenSIPS Consultancy

### Pricing Guide

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## Smartvox OpenSIPS Services

All pricing is for installation on existing CentOS, Debian or Ubuntu servers – we do not supply hardware.

### Basic installation:

If your budget is tight but you want help to install OpenSIPS on your Linux server, we can provide a minimal “get you started” installation service. Just provide us with SSH access and login credentials and we will install MySQL and OpenSIPS, including dependencies, and get OpenSIPS running with the default control script.

### Consultancy packages:

These go well beyond the basic installation of the software. We will discuss your requirements and provide guidance about the network topology and choice of any optional modules needed (see page 2). Smartvox provides a proven opensips.cfg control script, tailored to your requirements, including diagnostic output to a dedicated opensips log file. SIP over UDP is the default, but TCP and/or TLS may be enabled if required.

Once installed, we test to confirm proper operation for inbound and outbound calls, fixing any minor problems as they are identified and allowing you to take over a fully tested, working system.

## Consultancy Packages – what’s included?

### 1. OpenSIPS (start-on-boot) with an efficient script offering the following features:

- ❖ Registrations and call authentication using credentials and location data from MySQL tables
- ❖ Dial plan allowing extension-to-extension, inbound DDI-to-extension and outbound extension-to-carrier (or gateway) calling with optional control groups for local, national and International calling.
- ❖ Outbound routing via a specified carrier or gateway. Simple failover routing option available.
- ❖ Authentication of call requests based on the source IP address – using addresses in the OpenSIPS address table.
- ❖ Authentication of calls from UA’s by standard SIP challenge response (using MD5 encryption). Screening of ancillary SIP requests to protect your server from port scanning, etc.

### 2. Separate opensips log file with automatic logrotate

### 3. Optional configuration of the Linux iptables firewall for SIP/RTP and remote access.

### **Basic installation**

Price guide:   £160 (GBP)                      €200                      \$250 (USD)

### **Consultancy Package 1 – without NAT traversal**

Price guide:   £380 (GBP)                      €460                      \$600 (USD)

### **Consultancy Package 2 - with Mediaproxy far-end NAT traversal**

As above, but with additional NAT traversal functionality using ag-projects Mediaproxy product. (See Note 2)

Price guide:   £620 (GBP)                      €750                      \$980 (USD)

Note 1: OpenSIPS administration and database setup uses opensipsctl which is a text mode command line utility. If a web based GUI utility is required, please add the OpenSIPS Control Panel option. Euro and Dollar prices subject to prevailing exchange rates.

Note 2: The default is for Mediaproxy to be located on the same server as OpenSIPS. It is also possible for Mediaproxy to be installed on another server, but the Mediaproxy server must not be behind NAT and is not suitable as a bridge between two network segments.

## Options and Modules

Many important modules are included in the Consultancy Packages. A list is provided on the last page.

### Popular modules and options

Below is a list of popular options and modules that you may wish to select for inclusion.

Option/Module	Description	Cost category
Control Panel	Web based user interface to manipulate and view the data tables associated with several other popular modules including Call Data Records	2 (See Note 3)
Call Data Records	A record of each call showing time, date, called number etc	1 (See Note 3)
SIP Trace	A trace of the raw SIP messages written to tables for later viewing	2 (See Note 3)
Alias DB	Table based aliases – can also be used to generate a list of multiple alternate destinations when combined with the Parallel Forking option	1
Pike	Flood detection. Helps prevent DoS or brute force password guessing attacks	1
Load Balancer	Uses table based descriptions of end points and resources to distribute calls based on the resources needed. Includes option to ping for server availability.	2
Dispatcher	Similar to Load Balancing, but uses pre-defined groups rather than resource descriptions for the server end points.	2
Options	Allows OpenSIPS to answer Options requests	2
Parallel Forking	Using a table lookup or static rules, a single SIP Invite request can be forked to multiple destinations in parallel or series.	2
SST module	SIP Session Timers. Used to detect and terminate dead calls.	2
ENUM module	Support for ENUM routing	2
NAT Helper	For far-end NAT detection and fixing headers	Included in cons. pack 2
MediaProxy	Allows remote NAT'd end points to make a successful RTP connection through an intermediate Media Proxy server	Included in cons. pack 2

#### Cost per category 1 module or option:

Price guide (add this figure to base install price):      **£90 (GBP)**                      **€112**                      **\$145 (USD)**

#### Cost per category 2 module or option:

Price guide (add this figure to base install price):      **£180 (GBP)**                      **€225**                      **\$290 (USD)**

#### Note 3:

It is common to combine the Control Panel, Call Data Records and SIP Trace options. We offer these as an option package at a reduced price as follows:

Price guide (add this figure to base install price):      **£350 (GBP)**                      **€425**                      **\$550 (USD)**

Note: Euro and Dollar prices subject to prevailing exchange rates

## Advanced options and modules

The following is a list of the more advanced options and modules that some users may require. It is important to understand that the following represent a base cost and are given for guidance only. In practice, the pricing for advanced options and solutions is negotiable, is subject to individual requirements and the number of hours required to implement a working solution (which may not be predictable in advance).

Option/Module	Description	Cost category
Dynamic Routing	A powerful and flexible solution for controlling the routing of calls based on prefixes, caller groups, times and priorities. It can be used for inbound or outbound traffic, is able to select gateways and provide serial forking. Includes probing of servers to test if a route is available.	3
Presence	Control BLF lamps to show the status of other extensions and devices	3
CLI substitution	There are different ways of changing the Caller ID. You may wish to add special headers or modify the From header.	2 for simple cases
Exec based routing	The Exec module allows OpenSIPS to interact with external services. For example, it can send an HTTP request to an application server to get routing information or to report call events	3
Address substitutions	May be necessary if you have private peering to certain carriers or if media servers are behind NAT.	3
SNMP Stats	Allows your OpenSIPS server to be monitored using standard SNMP management tools such as PRTG or Cacti.	4
Radius	Radius authentication and call accounting. <i>Note: Compatible with Freeradius 1.x radius server. Additional charges may apply for other Radius servers.</i>	4

### Cost per category 3 module or option:

Price guide (add this figure to base install price):    **£350 (GBP)**                      **€425**                      **\$550 (USD)**

### Cost per category 4 module or option:

Price guide (add this figure to base install price):    **£850 (GBP)**                      **€1010**                      **\$1325 (USD)**

### Time based bespoke work

Rate:    **£45/hour**                      **€55/hour**                      **\$70 (USD)**

*Note: Euro and Dollar prices subject to prevailing exchange rates*

## Billing and Credit Control options

Due to the greatly variable expectations and requirements of different users, it is not possible to provide pricing guidance for Billing and Credit Control applications.

All pricing for such solutions is negotiable and subject to individual requirements.

## High Availability Solutions

Dual OpenSIPS servers can be configured to operate as a cluster – one being the primary server and the other a hot standby in case the primary fails. The basic requirements are:

1. *Synchronisation of key data across both servers, especially location data for registered UA's*
2. *Automated switchover from primary to standby in the event of a problem*

The simplest way to ensure that key data are synchronised is to configure both OpenSIPS servers to share a common database server. However, this only makes sense if the database server is resilient. Alternatively, each server may forward a copy of any registrations to the other, thereby allowing both servers to store a local copy of registration locations irrespective of which one received the registration.

Automatic switchover can be accomplished using a Virtual IP address if both servers are on the same subnet. Using DNS, it is possible for servers on different subnets to operate as a cluster (primary with hot standby), but the switchover speed is likely to be quite slow because of DNS caching.

Pricing:	Dual servers with a common database	No additional charge
	Forwarding of registrations to paired server	Additional charge, from £350 (GBP)
	Virtual IP address on a single subnet	Additional charge, from £600 (GBP)

## Appendix A: Included modules

The following OpenSIPS modules are included in the core package:

Module	Description
DB_MySQL	Allows OpenSIPS to retrieve data from and write records to a MySQL database. The DB server can run on the same server as OpenSIPS or can be accessed via the network
Dialog	Makes OpenSIPS 'state aware' for the calls it is proxying. This module is a pre-requisite for many other modules and features allowing control of maximum call duration. It also makes many other options possible such as categorisation of calls, limits to the number of simultaneous calls, proper formation of CDR's and easy tracking of call related options like NAT traversal and SIP tracing.
Group	Allows registered devices to be allocated to groups. Membership of a group can be used to control behaviour or to apply constraints to the services available to each user.
Permissions	Another module that enables control of the services available to different users, but this module is able to categorise requests based on the source IP address
Domain	Allows user devices and SIP requests to be matched to various pre-defined SIP domains
Usrloc	Core component used for device registrations and to maintain a location table
Registrar	Core component used for device registrations and to maintain a location table
Textops	Allows basic string manipulation and testing, searching, replacing within text strings and variables
TM	Core module used to statefully handle SIP requests
URI	Provides core functions used to check if a device is correctly authenticated
SL	Core module used to send stateless replies to some SIP requests
RR	Core module used to add Record Route headers to SIP requests