## **OpenSIPS 3.4 Installation Instructions:**

**Step 1:** Open your browser and go to the page:

[**https://apt.opensips.org**](https://apt.opensips.org/)

**Step 2:** Choose the release:

**Choose 3.4 - stable LTS Release**

**Step 3:** Copy the commands from the page and run in the system.(also install opensips related package by clicking OpenSIPS-CLI)

**Step 4:** Run the following command:

**apt install gnupg2**

**Step 5:** Update the system to reflect new changes:

**apt-get update**

**Step 6:** Install OpenSIPS and OpenSIPS CLI (Command Line Interface)

**apt install opensips**

**apt install opensips-cli**

**Step 7:** Install all other modules

**apt install opensips-\***

**Step 8*:*** Start opensips and check the status

**systemctl enable opensips**

**systemctl start opensips**

**systemctl status opensips**

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## **Configure OpenSIPS Command Line Interface:**

Before we can use the command line interface it is important to configure it.

The opensips-cli configuration file is found in the following order ~/.opensips-cli.cfg, /etc/opensips-cli.cfg, /etc/opensips/opensips-cli.cfg.

Use your favourite editor (nano, vi) to modify the file ~/.opensips-cli.cfg and add the following lines

| [default]  log\_level: WARNING  prompt\_name: cli  prompt\_intro: Welcome to CLI!  prompt\_emptyline\_repeat\_cmd: False  history\_file: ~/.opensips-cli.history  history\_file\_size: 1000  output\_type: pretty-print  communication\_type: fifo  fifo\_file: /tmp/opensips\_fifo  domain: opensips.org |
| --- |

Test opensips-cli using the commands:

**opensips-cli**

Then type: **mi ps** (Show OpenSIPS processes)

And check with: **mi which** (Show available commands)

If opensips-cli throws an error with command “**mi which**” check for the fifo file location in the opensips-cli.cfg file:

Try at location: **/var/run/opensips/opensips\_fifo** and edit the opensips-cli with the exact same location **“fifo\_file: /var/run/opensips/opensips\_fifo”**

## **OpenSIPS Database Support (MySQL)**

OpenSIPS uses the database to load subscribers and password, routes, dialplan and others. It is compatible with every major SQL and NoSQL databases.

To install opensips support for mysql we have to follow some steps.

**Step 1:** Install MySQL Server

**sudo apt install mysql-server**

Once the installation is complete, the MySQL server should be started automatically. You can quickly check its current status via running following command:

**sudo service mysql status**

If the server is not running correctly, you can type the following command to start it:

**sudo service mysql restart**

**Step 2:** Create the database opensips using the OpenSIPS command line interface:

**opensips-cli -x database create opensips**

**Step 3:** Verify if the tables were created

**mysql opensips -e "show tables"**

## **Install sngrep for easy SIP packet capturing:**

Install sngrep for easy SIP packet capturing. To install sngrep, simply use:

**apt install sngrep**

To have the lines printed correctly use in sngrep, just add these line in the bash file at the end.

**nano ~/.bashrc**

**alias sngrep='NCURSES\_NO\_UTF8\_ACS=1 sngrep'**

## **OpenSIPS Control Panel Instructions:**

**Step 1*:*** Install all dependencies and download the control panel

**apt-get install -y apache2;**

**apt-get install -y php php-curl php-gd php-pear php-cli php-mysql php-apcu;**

**apt-get install libapache2-mod-php unzip;**

**Step 2:** Install opensips-cp by following these steps:

| **cd /var/www/html**  **wget https://github.com/OpenSIPS/opensips-cp/archive/9.3.3.zip**  **unzip 9.3.3.zip**  **mv opensips-cp-9.3.3 opensips-cp**  **chown -R www-data:www-data /var/www/html/opensips-cp/**  **mysql -Dopensips < /var/www/html/opensips-cp/config/db\_schema.mysql**  **cp /var/www/html/opensips-cp/config/tools/system/smonitor/opensips\_stats\_cron /etc/cron.d/**  **mysql -e "CREATE USER 'opensips'@'localhost' IDENTIFIED BY 'opensipsrw';"**  **mysql -e "GRANT ALL PRIVILEGES ON opensips.\* TO 'opensips'@'localhost';"**  **mysql -e "FLUSH PRIVILEGES"**  **systemctl restart cron** |
| --- |

**Step 3:** Reconfigure apache to run opensips-cp. Replace the content of the file: **/etc/apache2/sites-available/000-default** with the content below.

| **<VirtualHost \*:80>**  **#ServerName www.example.com**  **ServerAdmin webmaster@localhost**  **DocumentRoot /var/www/html**  **ErrorLog ${APACHE\_LOG\_DIR}/error.log**  **CustomLog ${APACHE\_LOG\_DIR}/access.log combined**  **<Directory /var/www/html/opensips-cp/web>**  **Options Indexes FollowSymLinks MultiViews**  **AllowOverride None**  **Require all granted**  **</Directory>**    **<Directory /var/www/html/opensips-cp>**  **Options Indexes FollowSymLinks MultiViews**  **AllowOverride None**  **Require all denied**  **</Directory>**    **Alias /cp /var/www/html/opensips-cp/web**  **<DirectoryMatch "/var/www/html/opensips-cp/web/tools/.\*/.\*/(template|custom\_actions|lib)/">**  **Require all denied**  **</DirectoryMatch>**  **</VirtualHost>** |
| --- |

**Step 4:** Restart apache2:

**systemctl restart apache2**

and test the access using your browser and the address of the server using: “**localhost/cp**”

**Step 5:**Test the control panel logging in with:

username :admin  
password:opensips

**OpenSIPS script generation Instructions:**

Note: Some steps may be auto-processed in the following steps so need to execute all.

**Step 1:** Install the m4 processor

**apt install m4**

***Step 2:*** Generate your script

**/usr/sbin/osipsconfig**

**Select:**

* **Generate OpenSIps Script**
* **Residential Script**
* **Configure Residential SCript**

Select all options except TLS, NAT, PRESENCE and VM\_DIVERSION

**Save residential script**

**Generate residential script**

**Step 3:** Move the generated file to opensips.cfg

**cd /etc/opensips**

**mv opensips-residential\* opensips.cfg**

**Step 4:** Change the permissions of the file

**chmod 755 opensips.cfg**

**Step 5:**Edit the file and change the IP address in the socket command

**vi opensips.cfg**

**Step 6**(only if necessary)**:**Configure opensips control panel to send command to the correct place

**vi /var/www/html/opensips-cp/config/boxes.local.inc.php**

**Change:**

**$boxes[$box\_id]['mi']['conn']="json:127.0.0.1:8888/json"**

**To:**

**$boxes[$box\_id]['mi']['conn']="json:127.0.0.1:8888/mi"**

**Step 7:** Restart opensips and go to the control panel, opensips is ready to use you can add user and domains check your opensips using any softphone.