ishani Documentation

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ASTPP is an Open Source VoIP Billing Solution for Freeswitch. It supports pre-paid and post-paid billing with call rating and credit control. It also provides many other features such as calling cards, least cost routing (LCR), did management, resellers management etc.

CHAPTER 1

Introduction

Related pages

1.1 Features

1.1.1 Calling cards

Manage calling cards easily with card number & pin Bulk calling card generation Export calling cards in CSV Configure your own calling card access numbers Pinless authentication Call Detail report Configurable introduction prompt Various options to enable/disable playback options

1.1.2 Rate groups / Tariff

Manage rates with ease

Configure own rate group and assign to customers / resellers (For admin and resellers only)

Allocate free packages Carrier/trunk selection for outbound call routing for LCR Allow rate group based subscription

1.1.3 DIDs

Handle incoming calls with various options DID purchase/release option Options to configure setup, monthly fees for DID DID allocation option for admin/reseller Multiple types of routing types DID Billing

1.1.4 Configuration / Settings

Settings

Global parameters to manage system Default country, base currency, timezone etc Payment gateway configuration Calling card parameters Invoice configuration One time tax configuration Email template

1.1.5 Accounts management

Admin

Can manage entire system Able to manage multiple admins and subadmins **Reseller** Multi-layer reseller support (Unlimited) Own customer management Rates management Invoice management Reports Reseller portal **Customer / Provider** Postpaid/prepaid customers IP based authentications SIP Device management Invoices My Rates Reports

Customer portal

1.1.6 Invoices / Billing

Invoice & Receipt management Personalize invoicing info rmation for reseller Can configure his own comp any name & address which will be included in invoice pdf One time Tax Configuration Includes CDR charges, Subs cription fees, DID charges and other type of post charges or package charges. Configurable invoice date for each customer Send email upon invoice generation

1.1.7 Rates and LCR

Least cost routing on carrier/termination rates Option to define connect cost Import feature Batch update for easy bulk rates updation Force routing configuration in origination rates Carrier failover

1.1.8 Reports

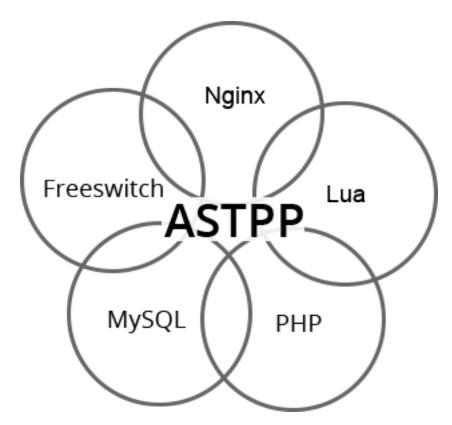
Call detail reports Summary reports (display usage of prefix, ACD, MCD, profit, Billable seconds) Trunk stats Live call report Payment report Export to csv

1.1.9 Paypal payment gateway

Configure your own paypal id to receive payments

Top Up/Recharge accounts quickly and get balance in real time

1.2 Components



- Nginx (http://nginx.com/)
 - NGINX accelerates content and application delivery, improves security, facilitates availability and scalability for the busiest web sites on the Internet.
- PHP (http://php.net/)
 - PHP (recursive acronym for PHP: Hypertext Preprocessor) is a widely-used open source general-purpose scripting language that is especially suited for web development and can be embedded into HTML.
- Lua (http://lua.org/)
 - Lua is a powerful, efficient, lightweight, embeddable scripting language. It supports procedural programming, object-oriented programming, functional programming, data-driven programming, and data description.
- MySQL (https://www.mysql.com/)
 - MySQL is a freely available open source Relational Database Management System (RDBMS) that uses Structured Query Language (SQL). SQL is the most popular language

for adding, accessing and managing content in a database. It is most noted for its quick processing, proven reliability, ease and flexibility of use.

- FreeSwitch (https://freeswitch.org/)
 - FreeSWITCH is a scalable open source cross-platform telephony platform designed to route and interconnect popular communication protocols using audio, video, text or any other form of media. It was created in 2006 to fill the void left by proprietary commercial solutions.

1.3 System Requirement

Minimal System requirement

- 2GB RAM
- 40GB Hard drive
- 64 bit OS (Centos/ Debian latest version)
- Dedicated server ip
- 100 Mbps connection

VoIP Requirement

- · Termination gateway to route outbound calls
- DIDs to receive incoming calls

Note: Promotion

If you'r carrier and would like to add your company name listed in ASTPP then please contact us at sales@inextrix.com.

1.4 How to Contribute

1.Become a tester and report bugs in bug tracker: Here is the link https://github.com/iNextrix/ASTPP/issues

2.Write or improve our project documentation : Which is me :)

3.Become a translator : If you have good command over other language then here is one more options for you to become a translator for documentation or portal labels.

4.Suggest a feature : If you have an idea you feel could improve the project, you can suggest us.

5.Help with design : If you have a talent for design, why not offer to help design the project's website or logo? If you fancy a bigger challenge, you could volunteer to give the project's user interface a makeover.

6.Donate by money : You can contribute to survive project, speed project development and to encourage team. Donation paypal id is billing@inextrix.com.

7.Build a community : As we are an open source, to survive it needs to become the center of a large, engaged community. Community means more people to discover and report issues, suggest new features, and generally help to spread the word. There's lots of ways you can help to grow a project's community, but a few popular methods are writing blogs and tutorials, promoting the project on social networks, and becoming active on its mailing list and/or forums, particularly when it involves answering questions newcomers have about the project.

CHAPTER 2

Installation

ASTPP Installation Guide

Basic knowledge of Freeswitch and Linux is required in order to do installation. We provides two ways to do installation,

- 1. Quick Installation
- 2. Manual Installation

Related pages

2.1 Quick Installation

Quick installation will install ASTPP 3.5 in scratch system only.

Quick Installation

```
# wget --no-check-certificate http://bit.do/dHwVu -0 install.sh
# chmod +x install.sh
# ./install.sh
```

2.2 Manual Installation

ASTPP Guide

we are using ASTPP version 3.5 and supporting only two OS for manual installation. You can opt any of them from below links.

2.2.1 Astpp Version 3.5

ASTPP Manual Installation Guide

Currently, we are supporting only two OS for manual installation. It's CentOS 7 and Debian 8.You can opt any of them from below links.

CentOs 7 Installation

Install base packages

```
yum update
yum groupinstall "Development tools" -y
#Enable epel and freeswitch repository
yum install epel-release
rpm -Uvh http://files.freeswitch.org/freeswitch-release-1-6.noarch.rpm
yum update
```

Install Freeswitch

1. Install Freeswitch pre-requisite packages

2. Download latest freeswitch version

```
cd /usr/local/src
git config --global pull.rebase true
#Clone freeswitch version 1.6.8 from git
git clone -b v1.6.19 https://freeswitch.org/stash/scm/fs/freeswitch.git
cd freeswitch
./bootstrap.sh -j
```

3. Edit modules.conf

```
#Enabling mod_xml_curl, mod_json_cdr, mod_db
sed -i "s#\#xml_int/mod_xml_curl#xml_int/mod_xml_curl#g" /usr/local/src/freeswitch/

omodules.conf
sed -i "s#\#mod_db#mod_db#g" /usr/local/src/freeswitch/modules.conf
sed -i "s#\#event_handlers/mod_json_cdr#event_handlers/mod_json_cdr#g" /usr/local/
osrc/freeswitch/modules.conf
sed -i "s#\#applications/mod_voicemail#applications/mod_voicemail#g" /usr/local/src/
ofreeswitch/modules.conf
```

Note: # add a module by removing '#' comment character at the beginning of the line # remove a module by inserting the '#' comment character at the beginning of the line containing the name of the module to be skipped

4. Compile the Source

./configure -C

5. Install Freeswitch with sound files

```
make all install cd-sounds-install cd-moh-install make \&\& make install
```

6. Set right time in server

```
ntpdate pool.ntp.org
systemctl restart ntp
chkconfig ntp on
```

7. Create symbolic links for Freeswitch executables

```
ln -s /usr/local/freeswitch/bin/freeswitch /usr/local/bin/freeswitch
ln -s /usr/local/freeswitch/bin/fs_cli /usr/local/bin/fs_cli
```

ASTPP Install

1. Download ASTPP

```
# Download ASTPP 3.5 source from git
cd /usr/src
git clone https://github.com/iNextrix/ASTPP
```

2. Change Apache working scenario

```
As we are using Nginx from now onwards from ASTPP 3.0, if you are using apache for

→ any application then-

either have to move it to Nginx and/or remove apache. You can also change default

→ port for apache if want to use-

it continue and troubleshoot some installation issue if arise.
```

3. Install ASTPP pre-requisite packages

```
yum install -y autoconf automake bzip2 cpio curl nginx php-fpm php-mcrypt* unixODBC_

→mysql-connector-odbc curl-devel php
php-devel php-common php-cli php-gd php-pear php-mysql php-mbstring sendmail sendmail-

→cf php-pdo php-pecl-json mysql

mariadb-server mysql-devel libxml2 libxml2-devel openssl openssl-devel gettext-devel_

→fileutils gcc-c++
```

4. Normalize ASTPP

```
#Create access & error log files.
touch /var/log/nginx/astpp_access_log
touch /var/log/nginx/astpp_error_log
touch /var/log/nginx/fs_access_log
touch /var/log/nginx/fs_error_log
systemctl restart php-fpm
service nginx reload
```

ASTPP using FreeSWITCH (if you want to use ASTPP with FreeSWITCH)

1. Configure freeswitch startup script

```
cp /usr/src/latest/freeswitch/init/freeswitch.centos.init /etc/init.d/freeswitch
chmod 755 /etc/init.d/freeswitch
chmod +x /etc/init.d/freeswitch
chkconfig --add freeswitch
chkconfig --level 345 freeswitch on
mkdir /var/run/freeswitch
```

2. Configure ASTPP with freeswitch

```
#Create directory structure for ASTPP
mkdir -p /var/lib/astpp/
mkdir -p /var/log/astpp/
mkdir -p /usr/local/astpp/
mkdir -p /var/www/
#Setting permisssion
chown -Rf root.root /var/lib/astpp/
chown -Rf root.root /var/log/astpp/
chown -Rf root.root /usr/local/astpp/
chown -Rf root.root /var/www//
#Setting up Scripts and Sounds for fs
cp -rf /usr/src/ASTPP/freeswitch/scripts/* /usr/local/freeswitch/scripts/
cp -rf /usr/src/ASTPP/freeswitch/fs /var/www/html/
cp -rf /usr/src/ASTPP/freeswitch/sounds/*.wav /usr/local/freeswitch/sounds/en/us/
⇔callie/
chmod -Rf 777 /usr/local/freeswitch/sounds/en/us/callie/
rm -rf /usr/local/freeswitch/conf/dialplan/*
touch /usr/local/freeswitch/conf/dialplan/astpp.xml
rm -rf /usr/local/freeswitch/conf/directory/*
touch /usr/local/freeswitch/conf/directory/astpp.xml
rm -rf /usr/local/freeswitch/conf/sip_profiles/*
touch /usr/local/freeswitch/conf/sip_profiles/astpp.xml
```

Install ASTPP web interface

```
mkdir -p /var/lib/astpp
cp /usr/src/ASTPP/config/* /var/lib/astpp/
#Setup web interface for ASTPP
mkdir -p /var/www/html/astpp
cp -rf /usr/src/ASTPP/web_interface/astpp/* /var/www/html/astpp/
chown -Rf root.root /var/www/html/astpp
cp /usr/src/ASTPP/web_interface/nginx/cent_* /etc/nginx/conf.d/
#apply security policy
sed -i "s/SELINUX=enforcing/SELINUX=disabled/" /etc/sysconfig/selinux
sed -i "s/SELINUX=enforcing/SELINUX=disabled/" /etc/selinux/config
/etc/init.d/iptables stop
chkconfig iptables off
setenforce 0
chmod -Rf 755 /var/www/html/astpp
touch /var/log/astpp/astpp.log
```

Install ASTPP Database

ASTPP Freeswitch Configuration

```
cp /usr/src/ASTPP/freeswitch/conf/autoload_configs/* /usr/local/freeswitch/conf/

→autoload_configs/

#Edit db password in autoload config files.

sed -i "s#dbpass = <PASSSWORD>#dbpass = <MYSQL_ROOT_PASSWORD>#g" /var/lib/astpp/astpp-

→config.conf

sed -i "s#DB_PASSWD=\"<PASSSWORD>\"#DB_PASSWD = \"<MYSQL_ROOT_PASSWORD>\"#g" /var/lib/

→astpp/astpp.lua

#Edit base URL in astpp-config

sed -i "s#base_url=http://localhost:8081/#base_url=http://<SERVER FQDN / IP ADDRESS>

→:8089/#g" /var/lib/astpp/

astpp-config.conf

Note:- Replace "<SERVER FQDN / IP ADDRESS>" with your server domain name or IPaddress
```

Finalize Installation & Start Services

```
#Open php short tag
sed -i "s#short_open_tag = Off#short_open_tag = On#g" /etc/php.ini
#Configure services for startup
systemctl disable httpd #If you are using it then change the port or update your_
→ configuration for nginx otherwise
your gui will not up
systemctl enable nginx
systemctl enable php-fpm
systemctl start mariadb
systemctl start freeswitch
systemctl stop firewalld
chkconfig --levels 345 mariadb on
chkconfig --levels 345 freeswitch on
chkconfig --levels 123456 firewalld off
Note: - If you want to use firewall then configure it to allow all port used in fs and,
\rightarrow ASTPP.
```

Setup cron

```
# Generate Invoice
0 1 * * * cd /var/www/html/astpp/cron/ && php cron.php GenerateInvoice
# Low balance notification
0 1 * * * cd /var/www/html/astpp/cron/ && php cron.php UpdateBalance
# Low balance notification
0 0 * * * cd /var/www/html/astpp/cron/ && php cron.php LowBalance
# Update currency rate
0 0 * * * cd /var/www/html/astpp/cron/ && php cron.php CurrencyUpdate
# Email Broadcasting
0 0 * * * cd /var/www/html/astpp/cron/ && php cron.php BroadcastEmail
```

Finally Reboot it.

```
#You are almost done with your configuration so just reboot it and make sure_

→everything is working fine.

reboot now

#Once server up and running again, check below service status.

systemctl status nginx

systemctl status mariadb

systemctl status freeswitch

systemctl status php-fpm
```

Note: You are done with GUI installation. Enjoy :) Visit the astpp admin page in your web browser. It can be found here: http://server_ip:8089/ Please change the ip address depending upon your box. The default username and password is "admin".

Note : In case of any issue please refer apache error log.

Note: If you have any other question(s) then please contact us on sales@inextrix.com or post your questions(s) in https://groups.google.com/forum/#!forum/astpp.

Debian 8 Installation

Install base packages

```
apt-get -o Acquire::Check-Valid-Until=false update
apt-get install -y git wget curl
```

Install Freeswitch

1. Install Freeswitch pre-requisite packages

2. Download latest freeswitch version

cd /usr/local/src git config --global pull.rebase true #Clone freeswitch version 1.6 from git git clone -b v1.6.19 https://freeswitch.org/stash/scm/fs/freeswitch.git cd freeswitch ./bootstrap.sh -j

3. Edit modules.conf

```
#Enabling mod_xml_curl, mod_json_cdr, mod_db
sed -i "s#\#xml_int/mod_xml_curl#xml_int/mod_xml_curl#g" /usr/local/src/freeswitch/

modules.conf
sed -i "s#\#mod_db#mod_db#g" /usr/local/src/freeswitch/modules.conf
sed -i "s#\#applications/mod_voicemail#applications/mod_voicemail#g" /usr/local/src/
freeswitch/modules.conf
sed -i "s#\#event_handlers/mod_json_cdr#event_handlers/mod_json_cdr#g" /usr/local/src/
freeswitch/modules.conf
```

Note: # add a module by removing '#' comment character at the beginning of the line # remove a module by inserting the '#' comment character at the beginning of the line containing the name of the module to be skipped

4. Compile the Source

./configure -C

5. Install Freeswitch with sound files

```
make all install cd-sounds-install cd-moh-install make && make install
```

6. Set right time in server

```
ntpdate pool.ntp.org
systemctl restart ntp
chkconfig ntp on
```

7. Create symbolic links for Freeswitch executables

```
ln -s /usr/local/freeswitch/bin/freeswitch /usr/local/bin/freeswitch
ln -s /usr/local/freeswitch/bin/fs_cli /usr/local/bin/fs_cli
```

ASTPP Install

1. Download ASTPP

```
# Download ASTPP 3.5 source from git
cd /usr/src
git clone https://github.com/iNextrix/ASTPP
```

2. Change Apache working scenario

```
As we are using Nginx from now onwards in ASTPP 3.0, if you are using apache for any_

→application then-

either have to move it to Nginx and/or remove apache. You can also change default_

→port for apache if want to use-

it continue and troubleshoot some installation issue if arise.
```

3. Install ASTPP pre-requisite packages

```
apt-get -o Acquire::Check-Valid-Until=false update
```

```
apt-get install -y curl libyuv-dev libvpx2-dev nginx php5-fpm php5 php5-mcrypt_

→libmyodbc unixodbc-bin php5-dev

php5-common php5-cli php5-gd php-pear php5-cli php-apc php5-curl libxml2 libxml2-dev_

→openssl libcurl4-openssl-

dev gettext gcc g++
```

4. Normalize ASTPP

```
#Create access & error log files.
touch /var/log/nginx/astpp_access_log
touch /var/log/nginx/fs_access_log
touch /var/log/nginx/fs_error_log
php5enmod mcrypt
systemctl restart php5-fpm
service nginx reload
```

ASTPP using FreeSWITCH (if you want to use ASTPP with FreeSWITCH)

1. Configure freeswitch startup script

```
cp /usr/src/ASTPP/freeswitch/init/freeswitch.debian.init /etc/init.d/freeswitch
```

chmod 755 /etc/init.d/freeswitch chmod +x /etc/init.d/freeswitch update-rc.d freeswitch defaults chkconfig --add freeswitch chkconfig --level 345 freeswitch on

2. Configure ASTPP with freeswitch

```
#Create directory structure for ASTPP
mkdir -p /var/lib/astpp/
mkdir -p /var/log/astpp/
```

```
mkdir -p /usr/local/astpp/
mkdir -p /var/www/
#Setting permisssion
chown -Rf root.root /var/lib/astpp/
chown -Rf www-data.www-data /var/log/astpp/
chown -Rf root.root /usr/local/astpp/
chown -Rf www-data.www-data /var/www/
#Setting up Scripts and Sounds for fs
cp -rf /usr/src/ASTPP/freeswitch/scripts/* /usr/local/freeswitch/scripts/
cp -rf /usr/src/ASTPP/freeswitch/fs /var/www/html/
cp -rf /usr/src/ASTPP/freeswitch/sounds/*.wav /usr/local/freeswitch/sounds/en/us/
→callie/
chmod -Rf 777 /usr/local/freeswitch/sounds/en/us/callie/
rm -rf /usr/local/freeswitch/conf/dialplan/*
touch /usr/local/freeswitch/conf/dialplan/astpp.xml
rm -rf /usr/local/freeswitch/conf/directory/*
touch /usr/local/freeswitch/conf/directory/astpp.xml
rm -rf /usr/local/freeswitch/conf/sip_profiles/*
touch /usr/local/freeswitch/conf/sip_profiles/astpp.xml
```

Install ASTPP web interface

```
mkdir -p /var/lib/astpp
cp /usr/src/ASTPP/config/* /var/lib/astpp/
#Setup web interface for ASTPP
mkdir -p /var/www/html/astpp
cp -rf /usr/src/ASTPP/web_interface/astpp/* /var/www/html/astpp/
chown -Rf www-data.www-data /var/www/html/astpp
cp /usr/src/ASTPP/web_interface/nginx/deb_* /etc/nginx/conf.d/
chmod -Rf 755 /var/www/html/astpp
touch /var/log/astpp/astpp.log
chown -Rf www-data.www-data /var/log/astpp/astpp.log
```

Install ASTPP Database

```
#Restart mysql service
systemctl restart mysql
mysql -uroot -e "UPDATE mysql.user SET password=PASSWORD('<MYSQL_ROOT_PASSWORD>'),.
↔WHERE user='root'; FLUSH PRIVILEGES;"
#Create database astpp
mysql -uroot -p<MYSQL_ROOT_PASSWORD> -e "create database astpp;"
mysql -uroot -p<MYSQL_ROOT_PASSWORD> -e "CREATE USER 'astppuser'@'localhost'...
↔ IDENTIFIED BY '<ASTPP_USER_PASSWORD>';"
mysql -uroot -p<MYSQL_ROOT_PASSWORD> -e "GRANT ALL PRIVILEGES ON \`astpp\` . * TO
→ 'astppuser'@'localhost' WITH
GRANT OPTION; FLUSH PRIVILEGES; "
mysql -uroot -p<MYSQL_ROOT_PASSWORD> astpp < /usr/src/ASTPP/database/astpp-3.0.sql
mysql -uroot -p<MYSQL_ROOT_PASSWORD> astpp < /usr/src/ASTPP/database/astpp-upgrade-3.
⇔5.sql
#Setup ODBC Connection for mysql
cp /usr/src/ASTPP/misc/odbc/deb_odbc.ini /etc/odbc.ini
```

ASTPP Freeswitch Configuration

Note:- Replace "<SERVER FQDN / IP ADDRESS>" with your server domain name or IPaddress

Finalize Installation & Start Services

Setup cron

```
# Generate Invoice
0 1 * * * cd /var/www/html/astpp/cron/ && php cron.php GenerateInvoice
# Low balance notification
0 1 * * * cd /var/www/html/astpp/cron/ && php cron.php UpdateBalance
# Low balance notification
0 0 * * * cd /var/www/html/astpp/cron/ && php cron.php LowBalance
# Update currency rate
```

```
0 0 * * * cd /var/www/html/astpp/cron/ && php cron.php CurrencyUpdate
# Email Broadcasting
0 0 * * * cd /var/www/html/astpp/cron/ && php cron.php BroadcastEmail
```

Finally Reboot it.

```
#You are almost done with your configuration so just reboot it and make sure_

→everything is working fine.
reboot now
#Once server up and running again, check below service status.
systemctl status nginx
systemctl status mysql
systemctl status freeswitch
systemctl status php5-fpm
```

Note: You are done with GUI installation. Enjoy :) Visit the astpp admin page in your web browser. It can be found here: http://server_ip:8089/ Please change the ip address depending upon your box. The default username and password is "admin".

Note : In case of any issue please refer apache error log.

Note: If you have any other question(s) then please contact us on sales@inextrix.com or post your questions(s) in https://groups.google.com/forum/#!forum/astpp.

2.3 Quick Start

Here are the steps to configure basic system:

[Origination Configuration]

- 1. Create Rate Group. Tariff -> Rate Group
- 2. Select Trunk in Rate Group
- 3. Add Origination Rates. Tariff -> Origination rates (Pattern example : 1, 235)

[Termination Configuration]

- 1. Add Gateway under your sip profile. Switch -> Gateways
- 2. Add Provider. Global Accounts -> Customers -> Create Provider
- 3. Add your trunk. Carriers -> Trunks
- 4. Add termination rates. Carriers -> Termination Rates(Pattern example : 1, 235)

Create new Customer or Reseller and assign your created rate group. For customer add SIP Device from View Account or Freeswitch SIP Devices.

For reseller configuration, create new reseller. Login as reseller. Add Routes. Create customers and then make calls using that customer.

Register it and make outbound calls.

How to ASTPP Quick Start

CHAPTER 3

Security

Fail2Ban is an intrusion prevention system that works by scanning log files and then taking action based on the entries in those logs.

You can configure Fail2Ban in a way that will update iptables firewall rules, when an authentication failure threshold is reached which helps in preventing SIP brute force attacks against FS instances.

Fail2Ban scans your freeswitch log file and bans IP that makes too many password failures. It updates firewall rules to reject the IP address.

Fail2Ban is available at fail2ban.org as well as more documentation.

Related pages

3.1 Apache Authentication

Apache authentication can be configured to require web site visitors to login with a user and password.

We protect cgi-bin apache directory which contains important perl scripts for dialplan, configurations and directory.

Step # 1: Make sure Apache is configured to use .htaccess file

```
You need to have "AllowOverride AuthConfig" directive in apache configuration file in_

→order for directives to have

any effect.

For CentOS

vim /etc/httpd/conf/httpd.conf

<Directory "/var/www/cgi-bin">

AllowOverride AuthConfig

Options None

Order allow,deny

Allow from all

</Directory>

Save the file and restart Apache
```

```
# service httpd restart
```

```
For Debian
vim /etc/apache2/sites-available/default
ScriptAlias /cgi-bin/ /usr/lib/cgi-bin/
<Directory "/usr/lib/cgi-bin">
AllowOverride AuthConfig
Options +ExecCGI -MultiViews +SymLinksIfOwnerMatch
Order allow,deny
Allow from all
</Directory>
Save the file and restart Apache
# service apache2 restart
```

Step # 2: Create a password file with htpasswd

```
htpasswd command is used to create and update the flat-files (text file) used to
\hookrightarrow store usernames and password for
basic authentication of Apache users.General syntax: htpasswd -c password-file.
⇔username
Where,
             -c : Create the password-file. If password-file already exists, it is,
\rightarrow rewritten and truncated.
            username : The username to create or update in password-file. If,
→username does not
            exist in this file, an entry is added. If it does exist, the password is
⇔changed.
Create directory outside apache document root, so that only Apache can access.
→password file. The password-file should
be placed somewhere not accessible from the web. This is so that people cannot,
→download the password file:
# mkdir -p /home/secure/
Add new user called astpp
# htpasswd -c /home/secure/apasswords astpp
New password:
Re-type new password:
allow apache user apache to read password file:
For CentOS
# chown apache:apache /home/secure/apasswords
# chmod 0660 /home/secure/apasswords
For Debian
# chown www-data:www-data /home/secure/apasswords
# chmod 0660 /home/secure/apasswords
Now user astpp is added but you need to configure the Apache web server to request a_
→password and tell the server
which users are allowed access. We have directory /var/www/cgi-bin and we would like_
\rightarrowto protect it with a password.
For CentOS
# cd /var/www/cgi-bin
# vim .htaccess
For Debian
```

```
# cd /usr/lib/cgi-bin
 # vim .htaccess
Add following text:
                     AuthType Basic
                     AuthName "Restricted Access"
                     AuthUserFile /home/secure/apasswords
                     Require user astpp
Now add username and password to following files:
# vim /usr/local/freeswitch/conf/autoload_configs/xml_curl.conf.xml
<!-- set this to provide authentication credentials to the server 
ightarrow
<param name="gateway-credentials" value="astpp:your_password"/>
# vim /usr/local/freeswitch/conf/autoload_configs/xml_cdr.conf.xm
<!-- optional: credentials to send to web server -->
<param name="cred" value="astpp:your_paasword"/>
Now restart freeswitch
# service freeswitch restart
```

You can test it by running below url in browser

http://localhost/cgi-bin/astpp/astpp-fs-xml.cgi

You will be asked for username and password for authentication.

3.2 Secure Freeswitch

Change Event Socket credential

vim /usr/local/freeswitch/conf/autoload_configs/event_socket.conf.xml
<param name="password" value="your_password"/>
Restart freeswitch service #service freeswitch restart

Set FreeSwitch Event Socket credential in UI

- 1. Login to ASTPP portal and Open Switch -> Freeswitch Server page.
- 2. Edit configured FreeSwitch settings to new credential which you just configured in event socket file.

3.3 Secure Portal

Steps: 1. Login to ASTPP portal

- 2. Open Accounts -> Admins page
- 3. Set strong password for admin

Note: Always use strong passwords to keep system secure.

3.4 Fail2ban

Fail2Ban is an intrusion prevention system that works by scanning log files and then taking action based on the entries in those logs.

You can configure Fail2Ban in a way that will update iptables firewall rules, when an authentication failure threshold is reached which helps in preventing SIP brute force attacks against FS instances.

Fail2Ban scans your freeswitch log file and bans IP that makes too many password failures. It updates firewall rules to reject the IP address.

Fail2Ban is available at fail2ban.org as well as more documentation.

Installtion :

```
For CentOS
cd /usr/src
service iptables stop
wget -T 10 -t 1 http://sourceforge.net/projects/fail2ban/files/fail2ban-stable/
i=fail2ban-0.8.4/fail2ban-0.8.4.tar.bz2
tar -jxf fail2ban-0.8.4.tar.bz2
cd fail2ban-0.8.4
```

Configurations:

```
touch /etc/fail2ban/filter.d/freeswitch.conf
cp /etc/fail2ban/filter.d/freeswitch.conf /etc/fail2ban/filter.d/freeswitch.bak
# vim /etc/fail2ban/filter.d/freeswitch.conf
[Definition]
# Option: failregex
# Notes .: regex to match the password failures messages in the logfile. The
# host must be matched by a group named host. The tag '<HOST>' can
# be used for standard IP/hostname matching and is only an alias for
# (?:::f{4,6}:)?(?P < host > [ \w -.^]+)
# Values: TEXT
#
failregex
= [WARNING] sofia_req.c:\d+ SIP auth challenge \(REGISTER)) on sofia
profile \'[^']+\' for \[.*\] from ip <HOST>
\[WARNING\] sofia_req.c:\d+ SIP auth failure \(INVITE\) on sofia profile \'[^']+\'...
\rightarrow for (.*) from ip <HOST>
# Option: ignoreregex
# Notes.: regex to ignore. If this regex matches, the line is ignored.
# Values: TEXT
#
ignoreregex =
```

```
# vim /etc/fail2ban/filter.d/freeswitch-dos.conf
[Definition]
# Option: failregex
# Notes .: regex to match the password failures messages in the logfile. The
# host must be matched by a group named host. The tag '<HOST>' can
# be used for standard IP/hostname matching and is only an alias for
# (?:::f{4,6}:)?(?P<host>[\w\-.^_]+)
# Values: TEXT
#
failregex
= \[WARNING\] sofia_reg.c:\d+ SIP auth challenge \(REGISTER\) on sofia
profile \'[^']+\' for \[.*\] from ip <HOST>
# Option: ignoreregex
# Notes.: regex to ignore. If this regex matches, the line is ignored.
# Values: TEXT
#
ignoreregex =
cp /etc/fail2ban/jail.conf /etc/fail2ban/jail.bak
# vim /etc/fail2ban/jail.local
[freeswitch]
enabled = true
port = 5060, 5061, 5080, 5081
filter = freeswitch
logpath = /usr/local/freeswitch/log/freeswitch.log
maxretry = 10
bantime = 10000000
findtime = 480
action = iptables-allports[name=freeswitch, protocol=all]
sendmail-whois[name=FreeSwitch, dest=, sender=fail2ban@]
[freeswitch-dos]
enabled = true
port = 5060,5061,5080,5081
filter = freeswitch-dos
logpath = /usr/local/freeswitch/log/freeswitch.log
action = iptables-allports[name=freeswitch-dos, protocol=all]
maxretry = 50
findtime = 30
bantime = 6000
/etc/init.d/iptables start
/etc/init.d/fail2ban start
chkconfig fail2ban on
```

CHAPTER 4

Service Monitoring

Monit is a small Open Source utility for managing and monitoring systems. Monit conducts automatic maintenance and repair and can execute meaningful causal actions in error situations.

For ASTPP we can configure apache, freeswitch and mysql services to monitor.

Installation

```
For CentOS
yum install monit
For Debian
apt-get install monit
```

Configurations:

Enable Web Interface in Monit

```
Monit also provided an web interface to view services and processes status. To enable_

→monit web interface,

edit configuration file ( For CentOS /etc/monit.conf & For Debian System /etc/monit/

→monitrc ) and modify following

lines as per your server information's

set httpd port 2812 and

use address localhost

allow localhost

allow @monit

allow @monit

allow @users readonly
```

Configure Monit To Monitor Services

```
1) Nginx:
```

```
2) MySQL
   check process mysqld with pidfile /var/run/mysqld/mysqld.pid
   start program = "/etc/init.d/mysql start"
   stop program = "/etc/init.d/mysql stop"
   group resources
   if cpu > 60% for 2 cycles then alert
   if cpu > 80% for 5 cycles then restart
3) Freeswitch
   check process freeswitch with pidfile /usr/local/freeswitch/run/freeswitch.pid
   start program = "/etc/init.d/freeswitch start"
   stop program = "/etc/init.d/freeswitch stop"
   if 5 restarts within 5 cycles then timeout
   if cpu > 60% for 2 cycles then alert
   if cpu > 80% for 5 cycles then alert
   if totalmem > 2000.0 MB for 5 cycles then restart
   if children > 2500 then restart
```

Configuration for email notification

```
# set mailserver mail.bar.baz, # primary mailserver
# backup.bar.baz port 10025, # backup mailserver on port 10025
# localhost # fallback relay
set mailserver localhost
# set alert sysadm@foo.bar # receive all alerts
# set alert manager@foo.bar only on { timeout } # receive just service-
# # timeout alert
set alert your@email.com
It will notify the status of services in email which are configured in configuration_
ifile.
```

Start service

```
Now start the monit service # service monit start
```

CHAPTER 5

Modules

5.1 Login

Login page for Customer, Reseller, Admin and Provider.

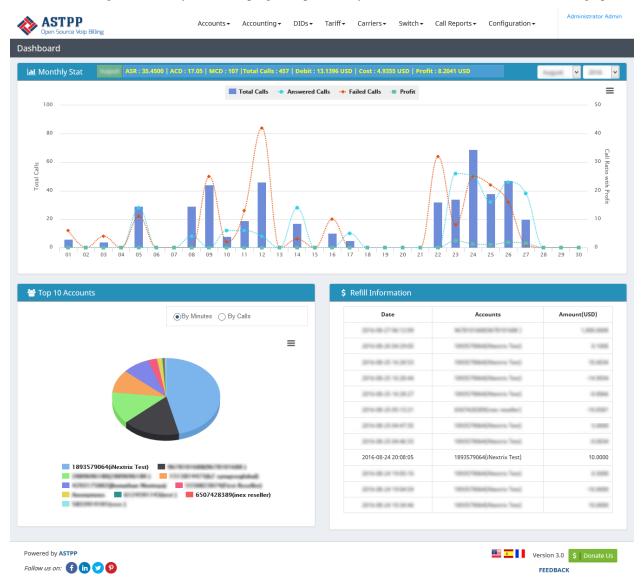
Enter Account number or email and password to login in to associate portal.

	AS Open S	TPP Source Voip Billing
4	admin	
	•••••	
	Lo	og in
5ignu	up now!	Forgot Password?

Signup up now	Click on signup to become new user
Forgot Password	If you forgot your password and want to reset then use this link

5.2 Dashboard

ASTPP have nice dashboard page with Summary of total call graph, Top 10 accounts and Recent accounts information. You can also change month and year from top right drop downs by default it show current month records in graph.



• Summary of total call Graph

- This graph includes current month calls statics including total number of calls, answered calls, failed calls and profit.
- Top 10 accounts
 - You can filter top 10 accounts by minutes utilized OR by calls. That way admin can identify their potential clients easily.
- Recharge information
 - This report will gives admin to monitor recently done recharges in system.

5.3 Accounts

ASTPP have different types accounts based on their roles and responsibility. They are as below,

- Customers / Providers
- We consider customers as (Originator) and providers as (Terminator + Originator) and will be able to do various operations like as below,
 - 1. Purchase DIDs & configure it
 - 2. Recharge account
 - 3. Create own SIP Devices
 - 4. Manage own caller ids
 - 5. Invoices
 - 6. Check their CDRs
- Resellers
- ASTPP gives you freedom to create N level resellers and each reseller will be able to configure their own rates and customers. Resellers will be able to do below operations in system,
 - 1. Create customers & sub-resellers
 - 2. Configure rate groups & rates
 - 3. Purchase DIDs
 - 4. Invoices
 - 5. Check reports
 - 6. Personalize invoices configurations
- Admin / Sub admins
- Admins are having full control over system whereas sub admins are having only reporting permissions.

Open Source Voip Billing	Accounts +	Accounting -	DIDs▼	Tariff▼	Carriers▼	Switch 🗸	Call Reports 🕶	Configuration -	Administrator Admin
Customers	Customers							QSearch	🔁 Batch Update
	Admins								
	Resellers								
	Email Mass								

You can navigate through different menus of ASTPP.

Eg. : To create new customer hover on Accounts, it will show sub menus like Customers, Admins, Resellers.Click on Customers and then click on Create Create Customer.

Related pages

5.3.1 List Account

This page will list customers and providers accounts.

0	Create Customer	Mass Create	e 🕒 Create	Provider	📩 Export	8 Delete							
	Account	First Name	Last Name	Company	Rate Group	Balance (USD)	Credit Limit (USD)	First Used	Expiry Date	сс	Status	Created Date	Action
	C Postpaid	pro-proving	desarg	-	1000	0.7000	1,000,0000		2014-08-17		Active	274.0817	\$ 0 🕼 🛍
	Prepaid	Provider	Wester		-	1.000	1.000		2010-07-18		Active	2016-07-16 2110-18	\$ 0 🕼 🛍
	C	(Inc.)	Paul		-	12,000	1.000		10.4014		Active	274-08-10	\$ 0 🕼 🛍
	C	101104000			-	1.000	1.000		2008-08-10 10:34014		Active	27%-08-10 12.36-61	\$ 0 🕼 🛍
	Prepaid	Carroway	Provider		-	-14.1755			-		Active	2016-07-07	\$ 0 🕼 🏛

Top panel button of grid

Create Customer	To create New customer account.					
Mass Create	To grante Multiple quotomor account					
	To create Multiple customer account.					
Create Provider	To create New provider account.					
	To create New provider account.					
🛓 Export	It will export accounts data					
	It will export accounts data.					
😮 Delete	Delete selected accounts.					

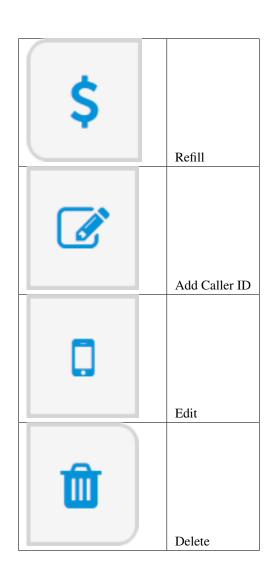
Account column button of grid for account entity

C	It indicates customer accounts
P	It indicates provider accounts
A	It indicates admin accounts
S	It indicates subadmin accounts

Account column button of grid for account type

Prepaid	It indicates account type is prepaid
[Postpaid]	It indicates account type is postpaid

Action column in grid



5.3.2 Create Account

Once you click on Create Customer button, it will show you page to create new account like below screenshot. Enter appropriate information in page and click on save button to create account successfully.

For creating resellers, admins and sub-admins, we have similar process.

Pin * 9519047762 First Name * Samir Last Name Doshi Company Inextrix Technologies Pvt. Ltd. Phone 91-989-834-7245 Mobile 91-989-834-7245 Mobile 91-989-834-7245 Interval Interval Email * sales@inextrix.com Address 1 Sthram Road, Bhimjipura, Nava Vadaj, Address 2 Interval City Ahmedabad Province/State Gujarat Zjo/Postal Code Sa0013 Country * India India Imazone * GMT-12:00 International Date Lir •	te Customer							
Password * frib26 C Pin * 9519047762 C Pin * 9519047762 C Samir Allow IP Management Yes Last Name Doohi C Company Instrict Technologies Pr4. Ltd. Number Translation Phone 91-999-834-725 Enterval Mobile 91-999-834-725 Enterval Samir Saesglinestric.com Billing Settings Address 2 C Social Carlos 3000000000000000000000000000000000000	ccount Profile —				Account Settings			
Pin* 9519047762 First Name * Samir Last Name Dohl Company Insettin Enchnologies Pr. Ltd. Phone 91-989-834-7245 Mobile 91-989-834-7245 Balling Sales@insettin.com Address 1 Sales@insettin.com Address 2 Insettin Enchnologies Pr. Ltd. City Almedalad Province/State Gujarat Zipe/Potal Code 380013 Courty* India U.S. Dollar (USS) Cerdet Limit Limit Quist Sales of Code Code Code Code Code Code Code Code	Account *	9519047762	C		Status	Active	•	
First Name * Samir Company Doshi Company Inextric Technologies IV.L.Ld. Phone 9-989-834-7265 Mobile 9-989-834-7265 Small * sales@inextrix.com Address 1 Schman Road, Bhimjipura, Nava Vadaji, Address 2	Password *	f0fb26	C		Allow Recording	Yes	•	
Last Name Dishi Company Intertrix Technologies P.V. Ltd. Phone 91-999-834-7245 Mobile 91-999-834-7245 Interval Interval Brint sales@inectrix.com Address 1 Schraum Road, Bhinijpura, Nava Vadaj. Address 2	Pin *	9519047762	C		Allow IP Management	Yes	•	
Company Inestric Technologies Pr. Ltd. Phone 91-999-834-7245 Mobile 91-999-834-7245 Email * sales@inestric.com Address 1 schram Road, Bhimjjuura, Nava Vadaj, Address 2	First Name *	Samir			Create SIP Device	Yes	•	
Phone 91.989.834.7245 Mobile 91.989.834.7245 Email * Sales@inextrix.com Address 1 Wshram Road, Bhimjipura, Nava Vadaja Address 2	Last Name	Doshi			Number Translation			
Mobile 91-98-984-7245 Brinil * sales@inextrix.com Address 1 Sales@inextrix.com Address 2 City Ahmedabad City Ahmedabad garat Zip/Postal Code 380013 Timezone * (GMT-12200) International Date Lir • U.S. bollar (USD) • Kurnery * U.S. bollar (USD) • Kather Kase Kase Kase Kase Kase Kase Kase Kase	Company	Inextrix Technologies Pvt. Ltd.			Concurrent Calls			
Enail * sales@inextrit.com Address 1 scheme * GMT-12:00 International Date Lir • Currency * U.S. Dollar (USD) • Karrier Street *	Phone	91-989-834-7245			Interval			
Address 1 Address 2 Address 2 City Ahmedabad Frovince/State Gujarat Country * India (GMT-12:00)International Date Lir Currency * U.S. Dollar (USD) Country Currency * U.S. Dollar (USD) Country Currency	Mobile	91-989-834-7245			First Used	0000-00-00 00:00:00		
Address 2 City Ahmedabad Province/State Gujarat Country * India • Timezone * (GMT-12:00) International Date Lir • Currency * U.S. Dollar (USD) • Currency * U.S. Dollar (USD) • Currency * U.S. Dollar (USD) • Currency * Cu	Email *	sales@inextrix.com			Account Valid Days			
City Ahmedabad Rate Group * test • Account Type Prepaid • Billing Schedule Monthly • Billing Schedule Monthly • Billing Schedule Monthly • Billing Day 28 • Balance Credit Limit Currency * U.S. Dollar (USD) • Credit Limit Allow Local Calls Ves • LC Charge / Min Tax I Schedule Allow Local Calls Ves • Balance Email Alerts ? Ves • Balance Email Alerts ? Ves • Balance Below	Address 1	Ashram Road, Bhimjipura, Nava Vadaj,			Expiry Date	2026-08-30 07:36:35		
City Ahmedabad Rate Group * test • Province/State Gujarat Account Type Prepaid • Zip/Postal Code 380013 Billing Schedule Monthly • Country * India • Billing Day 28 • Timezone * (GMT-12:00) International Date Lir • Balance • • Currency * U.S. Dollar (USD) •	Address 2				– Billing Settings			
Zip/Postal Code 380013 Country * India • Hilling Chedule Monthly • Billing Day 28 • Balance Credit Limit Credit Limit LC Charge / Min Tax Balance Email Alerts ? Yes • Balance Below	City	Ahmedabad				test	•	
Country * India • Timezone * (GMT-12:00) International Date Lir • Currency * U.S. Dollar (USD) • US. Dollar	Province/State	Gujarat			Account Type	Prepaid	•	
Timezone * (GMT-12:00) International Date Lir • Currency * U.S. Dollar (USD) • How Local Calls Yes • LC Charge / Min Tax Allow Local Calls Yes • LC Charge / Min Tax Balance Email Alerts ? Yes • Balance Below	Zip/Postal Code	380013			Billing Schedule		•	
Currency * U.S. Dollar (USD) • Credit Limit Allow Local Calls Yes • LC Charge / Min Tax Alert Threshold Email Alerts ? Yes • Balance Below	Country *	India 👻			Billing Day	28	•	
Allow Local Calls Yes LC Charge / Min Tax Alert Threshold Email Alerts ? Yes Balance Below	Timezone *	(GMT-12:00) International Date Lir 🔻			Balance			
LC Charge / Min Tax Alert Threshold Email Alerts ? Yes • Balance Below	Currency *	U.S. Dollar (USD) -			Credit Limit			
Tax Alert Threshold Email Alerts ? Yes Balance Below					Allow Local Calls	Yes	•	
Alert Threshold Email Alerts ? Yes • Balance Below					LC Charge / Min			
Email Alerts ? Yes Balance Below					Tax		^	
Email Alerts ? Yes Balance Below								
Email Alerts ? Yes Balance Below							~	
Balance Below								
						Yes	•	
Email								
					Email			
Save Cancel				Save	Cancel			

Create Customer Account Form Fields Details:

Account	Also referred as User Name, Card Number or ID is typically a 10 unique digits that identify an account
	into the system.
	Length of account number is configurable, admin can change it from global configuration.
Password	The password that needs to be provided to the customer so he/she can log into portal.
Pin	Calling Card Pin Important if customer is using calling card feature. Length of pin is configurable, admin can change it from calling card configuration.
First-	Customer First name
Name	
Last-	Customer Last name
Name	
Company	Customer Company name
Tele-	Customer Telephone number
phone	
Country	Customer Country
Time-	Customer Timezone
zone	
Status	Customer account status
Max	Maximum allowed concurrent channels for outbound calls. 0=Unlimited
Channels	
Number	If you wish to translate number with some defined number for specific customer then use this feature.
Transla-	
tion	
First	Customer account's first used date and time. It will be updated when customer will do first call from
Used	system.
Expiry	Customer account's expiry date. After that date, customer wouldn't be able to make new calls.
Date	
Valid	Valid days for customer account.
Days	
Create	By selecting check-box sip device is automatically created for that new user account.
SIP	
Device	
Rate	Rate group is an essential field for billing. Without rate group customer wouldn't be able to make any
Group	calls. You can create rate group by navigating to Tariff -> Rate group.
Billing	Billing schedule for invoice generation.
Schedule	
Billing	If billing schedule is monthly then you will be able to define the day on which you want customer
Day	invoice should be generated.
Currency	Customer account's currency. If customer currency is INR then all amounts will appear in INR in
•	customer portal.
Account	Select customer account type. Prepaid OR Postpaid. For prepaid customers, system will generate
Туре	receipts as soon as any charges will be applied to them. For Postpaid, system will generate invoice on
• •	defined Billing Day.
Credit	Customer account's credit limit. Credit limit is only used for the postpaid account.
Limit	
Tax	Select applicable taxes You can create taxes from Configuration -> Taxes.
Low	Define low balance amount on which you want to send notification to customer.
Balance	·
Alert	
Enable	system will notify for Low credit if this option is set to Yes.
Email	
Email Alerts?	
	E-mail address to get Low credit notification.

How to create customer

5.3.3 Edit Account

Customer edit page contains settings tabs,

omer Profile Customers / Profil	e				н
evices					
ttings	le		Account Settings -		
r ID	9988169756		Status	Active 👻	
d Dial Password	•••••		Allow Recording	Yes 👻	
ed Codes Pin *	380013	Ø	Allow IP Management	Yes 👻	
First Name *	test		Number		
cription Last Name	test		Translation Concurrent Calls		
ce				0	
Report	inextrix Technologies Pvt. Ltd.		Interval	0	
ges History Phone	01212121212		First Used	0000-00-00 00:00:00	
Mobile	01212121212		Account Valid Days	0	
S Email *	sales@inextrix.com		Expiry Date	2026-07-26 07:12:48	
Threshold Address 1	Ahmedabad		Dilli C. M.		
Address 2			Billing Settings		
City				test •	
City	Ahmedabad		Account Type	Prepaid 🔻	
Province/State	Gujarat		Billing Schedule	Monthly -	
Zip/Postal Coo	le		Billing Day	26	
Country *	India -		Balance	98.50000	
Timezone *	(GMT+05:30) Chennai, Kol 🔹		Credit Limit	0.00000	
Currency *	U.S. Dollar (USD) -		Allow Local Calls	Yes	
			LC Charge / Min		
				0.5	
			Tax	^	
				~	
		Save	Cancel		

Here is left side menu information,

Customer Profile	To edit customer's personal details.
SIP Devices	Create/update SIP Devices.
IP Settings	Configure IP to allow calls from defined IPs.
Caller ID	Set caller id for pinless authentication.
Speed Dial	Set your favourite number as speed dial from here.
Block Codes	Configure blocked prefixes for account.
DID	Assign DID To account.
Subscription	Assign subscription charges to account.
Invoices	Shows list of invoices generated for this account.
Refill Report	Show all refill histrory of specific account.
Charges History	It shows all charges which apply to specific customer.
CDRS	Customer accounts CDRs information.
Emails	Here you can check email history of accounts.
Alert Threshold	Here we can set low balance email notification.

Related pages

Account Details

Open Source Voip Billing		Accounts - Accounting -	DIDs • Tariff •	Carriers -	Switch 🗸 🛛 Call	Reports - Configuration -	Administrator Administrator
omer Profile	Customers / Profile						ж
Devices							
ettings	Account Profile -				Account Settings -		
er ID	Account *	9988169756			Status	Active -	
ed Dial	Password	•••••			Allow Recording	Yes 👻	
ked Codes	Pin *	380013	C		Allow IP	Yes 👻	
	First Name *	test			Management Number		
scription	Last Name	test			Translation Concurrent Calls	-	
ice						0	
l Report	Company	inextrix Technologies Pvt. Ltd.			Interval	0	
rges History	Phone	01212121212			First Used	0000-00-00 00:00:00	
S	Mobile	01212121212			Account Valid Days	0	
ils	Email *	sales@inextrix.com			Expiry Date	2026-07-26 07:12:48	
: Threshold	Address 1	Ahmedabad			pulli a ui		
	Address 2				Billing Settings		
	City					test 🔹	
		Ahmedabad			Account Type	Prepaid 💌	
	Province/State	Gujarat			Billing Schedule	Monthly -	
	Zip/Postal Code				Billing Day	26 🔺	
	Country *	India -			Balance	98.50000	
	Timezone *	(GMT+05:30) Chennai, Kol 🔹			Credit Limit	0.00000	
	Currency *	U.S. Dollar (USD) 🔹			Allow Local Calls	Yes 🔻	
					LC Charge / Min	0.5	
					Tax	^	
			Sav	/e	Cancel		
owered by ASTPP						Version	3.0 \$ Donate U
ollow us on: 🕤 in 🈏 🖗						FEEDI	1 A A A A A A A A A A A A A A A A A A A

Account	Also referred as User Name, Card Number or ID is typically a 10 unique digits that identify an ac-
liceount	count into the system. Length of account number is configurable, admin can change it from global
	configuration.
Password	The password that needs to be provided to the customer so he/she can log into portal.
Pin	Calling Card Pin Important if customer is using calling card feature. Length of pin is configurable,
	admin can change it from calling card configuration.
First-	Customer First name
Name	
Last-	Customer Last name
Name	
Company	Customer Company name
Tele-	Customer Telephone number
phone	
Country	Customer Country
Time-	Customer Timezone
zone	
Status	Customer account status
Max	Maximum allowed concurrent channels for outbound calls. 0=Unlimited
Channels	
Number	If you wish to translate number with some defined number for specific customer then use this feature.
Transla-	
tion	
First	Customer account's first used date and time. It will be updated when customer will do first call from
Used	*
	system. Customer account's expiry date. After that date, customer wouldn't be able to make new calls.
Expiry	Customer account's expiry date. After that date, customer wouldn't be able to make new cans.
Date	
Valid	Valid days for customer account.
Days	
Create	By selecting check-box sip device is automatically created for that new user account.
SIP	
Device	
Rate	Rate group is an essential field for billing. Without rate group customer wouldn't be able to make any
Group	calls. You can create rate group by navigating to Tariff -> Rate group.
Billing	Billing schedule for invoice generation.
Schedule	
Billing	If billing schedule is monthly then you will be able to define the day on which you want customer
Day	invoice should be generated.
Currency	Customer account's currency. If customer currency is INR then all amounts will appear in INR in customer portal.
Account	Select customer account type. Prepaid OR Postpaid. For prepaid customers, system will generate
Туре	receipts as soon as any charges will be applied to them. For Postpaid, system will generate invoice on
51	defined Billing Day.
Credit	Customer account's credit limit. Credit limit is only used for the postpaid account.
Limit	
Tax	Select applicable taxes You can create taxes from Configuration -> Taxes.
Low	Define low balance amount on which you want to send notification to customer.
Balance	
Alert	
Enable	system will notify for Low credit if this option is set to Yes.
Email	
Alerts?	
Email	E-mail address to get Low credit notification.
Address	

Customer SIP Devices

Create/update SIP Devices.

Lustomer Profile	Custome	Customers / Profile / SIP Devices								H B	
IP Devices											
	Cre	eate 🙁 Del	ete							S	earch
ller ID											
		User Name	Password	SIP Profile	Caller Name	Caller Number	Voicemail	Status	Created Date	Modified Date	Action
cked Codes		1671360797	1671360797	default	1671360797	1671360797	~	Active	2016-07-26 06:46:03	2016-07-26 11:48:00	2
									2016-08-05	0000-00-00	
oscription		7669272893	7669272893	default			*	Active	10:18:15	00:00:00	
	~	< Page	1 of 1 >	» G 1	- 2 of 2 Records	10 4 1-	2 of 2 Records				
ill Report											

IP Settings

To enable IP Based authentication for customer. Define customer IP's in below TAB and system will start accepting calls from defined IPs.

Customer Profile	Customers / Profile / IP Se	Customers / Profile / IP Settings							
SIP Devices	Add								
IP Settings						Search			
Caller ID	New IP								
Speed Dial	Name		IP *		Prefix				
Blocked Codes									
	Save								
Subscription									
Invoice									
Refill Report	Name	IP	Prefix	Created Date	Modified Date	Action			
Charges History	IP Test	192.168.1.66/32	91	2016-08-31 03:36:15	0000-00-00 00:00:00	۵			
CDRs									
Emails	C Page 1 C	of1 > > @ 1-1	of 1 Records 10 • 1	- 1 of 1 Records					
Alort Threehold									

Add/Edit IP Settings form fields description

Name	Add a name for identification only, this can be the client OR server name if you wish.
IP Address	Add the IP Address you want to authenticate with.
Prefix	For additional validation over IP based authentication.

Caller ID

Set caller id for pinless authentication.

Customer Profile	Customers / Profile / Caller ID					Hen Back
SIP Devices						
IP Settings	• Add					Search
Caller ID	Caller ID					
Speed Dial	Caller ID :		Save			
Blocked Codes						
DID						
Subscription						
Invoice	Caller ID	Status	Created Date	Modified Date	Action	
Refill Report	16713607978	Active	2016-08-31 03:43:37	0000-00-00 00:00:00		
Charges History	<pre></pre>	> > C 1-1of1R	ecords 10 💙 1 - 1 of 1 Re	ecords		
CDRs						

Speed Dial

Customer Profile	Customers / Profi	ile / Speed Dial		🕊 Back
SIP Devices				
IP Settings	Speed Dial (#Digits)	Extension	Action	
Caller ID	0	123456787654	Edit Delete	
Speed Dial	1	918866886690	Edit Delete	
Blocked Codes	2	7264438671	Edit Delete	
DID	3		Edit Delete	
Subscription	4		Edit Delete	
Invoice				
Refill Report	5		Edit Delete	
Charges History	6		Edit Delete	
CDRs	7		Edit Delete	
Emails	8		Edit Delete	
Alert Threshold	9		Edit Delete	

Block Codes

If you wish to block certain prefixes for account then you can configure those prefixes from Block Codes TAB.

Customer Profile	Customers / Profile / Blocked Codes		🕊 Back
SIP Devices			
IP Settings	3 Add Delete		Search
Caller ID			
Speed Dial	Code	Destination	Action
Blocked Codes	91	India	û
DID	(Page 1 of 1 > > C 1-1 of 1 Records 10	1 1 of 1 Pacards	
Subscription			
Invoice			
Refill Report			
Charges History			
CDRs			
Emails			
Alert Threshold			

DID

Assign DID To account.

Customer Profile		/ DID							Ħ Back
SIP Devices									
IP Settings	Purchase							Search	
Caller ID	Purchase DID								
Speed Dial	Country :	South Africa	▼ A	vailable DIDs :Sele	ect	▼ Purchase	DID		
Blocked Codes									
DID									
Subscription									_
Invoice	DID	Country	Per Minute Cost(USD)	Initial Increment	Increment	Setup Fee(USD)	Monthly Fee(USD)	Action	
Refill Report	3109055421	United States of America	0.0000	0	0	0.0000	0.0000		
Charges History	« < Page	1 of 1 >	» C 1-1of1	Records 10 Y	1 - 1 of 1 Records	11		1	
CDRs	i i raye				1 - I OI I Records				
Emails									
Alert Threshold									

Subscription

Assign subscription charges to account.

Customer Profile	Customers / Profile /	Subscriptions						Ħ Back
SIP Devices								
IP Settings	Assign						Search	
Caller ID	Subscriptions							
Speed Dial	Subscriptions:	Select	•	Assign				
Blocked Codes								
DID								
Subscription								
Invoice	Name	Amount(USD)	Prorate	Billing Cycle	Created Date	Modified Date	Action	
Refill Report	subscription test	10.0000	Yes	Daily	2016-08-30 09:45:59	0000-00-00 00:00:00	•	
Charges History	«	of 1 > >> (0	1 - 1 of 1 Reco	rds 10 🔻 1-1 of 1 R	ecords		1	
CDRs								
Emails								
Alert Threshold								

Account Invoices

Shows list of invoices generated for this account.

Customer Profile	Customers / Profile	/ Invoices								₭ Ba
SIP Devices										
IP Settings									Search	
Caller ID										
Speed Dial	Number	Туре	Generated Date	From Date	Due Date	Last Pay Date	Amount(USD)	Outstanding Amount(USD)	Action	•
Blocked Codes DID	R abc00007	Automatically	2016-07-25	2016-07-25	2016-08-04		100.0000	0.0000	۵	
Subscription	1 abc000018	Automatically	2016-08-10	2016-08-10	2016-20-10		10.0000	0.0000	a Pa	d
Invoice	1 abc000020	Manually	2016-08-29	2016-08-29	2016-08-01		20.0000	0.0000	a e 1	1
Refill Report	ແ 🔇 Page	1 of 1 >	» C 1-3	of 3 Records 10	 1 - 3 of 3 Rec 	ords	1			
Charges History										
CDRs										
Alert Threshold										

Refill Report

Customer Profile	Customers / Profile / Refill Report			He Back
SIP Devices				
IP Settings				Search
Caller ID				
Speed Dial	Date	Amount(USD)	Refill By	Note
Blocked Codes	2016-09-19 06:30:09	1.0000	admin	Payment made by inex customer, invoices No: INV_00005
DID	2016-09-19 06:24:50	1.0000	admin	Payment made by inex customer, invoices No:
Subscription				INV_00004
Invoice	2016-09-14 04:25:05	1.0000	admin	Payment made by inex customer, invoices No: INV_00003
Refill Report	2016-09-14 04:22:43	100.0000	Admin	
Charges History CDRs	2016-09-14 04:19:45	10.0000	admin	Payment made by inex customer, invoices No: INV_00001
Emails Alert Threshold	2016-09-13 10:46:12	1.0000	Admin	Recharge using Refill coupon,Refill coupon No. 12566090
AICIT III CSIIOIU	2016-09-09 07:44:52	1.0000	Admin	
	2016-09-09 07:41:49	1.0000	Admin	
	2016-09-08 04:33:17	1.0000	Admin	
	C Page 1 >	>> C 1 - 9 of 9 Records 10	▼ 1 - 9 of 9 Records	

Charges History

Devices								
								Search
? Settings								
aller ID	· · · · · · · · · · · · · · · · · · ·							
peed Dial	Created Date	Invoice Number	Charge Type	Before Balance (USD)	Debit (-) (USD)	Credit (+) (USD)	After Balance (USD)	Description
locked Codes			-					
	(Second)	-				1.000		
Subscription	211.0.0	41.0001	100.000					101010
tefill Report	8.0.0	44.000	100.040					1000
harges History	2016-08-04 05:00:13	abc000014	PAYMENT	90.4000	0.0000	5.0000	95.4000	Payment Made by Paypal on date:- 2016-08-04 05:00:13
	Total	1	2		1.0000	6.0000		2
lert Threshold	« « Pa	ge 1 of 1	» » C	1 - 4 of 4 Records 10	✓ 1 - 4 of 4	Records		

CDRs

Customer account CDR information. That will display incoming and outgoing calls.

This report will display only current day records only.

Devices								
								Search
er ID								
	Date	Caller ID	Called Number	Destination	Duration	Debit(EUR)	Disposition	Call Type
cked Codes	2016-09-20 13:31:50		-	10102-008	00:37	0.0000	NORMAL_CLEARING	DID
) oscription	2016-09-20 13:09:29		10710-008	101102-028	00:09	0.0000	NORMAL_CLEARING	DID
voice	2016-09-20 13:04:17	"975486506" <975486506>	975651838	975651838	00:45	0.0000	NORMAL_CLEARING	DID
efill Report narges History	2016-09-20 12:44:08	"975300145" <975300145>	975651838	975651838	00:11	0.0000	NORMAL_CLEARING	DID
DRs	2016-09-20 12:44:07		-	Taxan In	00:10	0.0023	NORMAL_CLEARING	STANDARD
nails ert Threshold	2016-09-20 12:41:59		-	-	01:01	0.0000	NORMAL_CLEARING	DID
ert mresnola	2016-09-20 12:41:58		-	Name of Street	01:00	0.0138	NORMAL_CLEARING	STANDARD
	2016-09-20 12:39:19		-	101103-000	00:40	0.0000	NORMAL_CLEARING	DID
	2016-09-20 12:39:18	-		10000	00:40	0.0092	NORMAL_CLEARING	STANDARD
	2016-09-20 09:54:21	-	-	101103-000	01:00	0.0000	NORMAL_CLEARING	DID

Emails

Customer Profile	Customers / Profile /	Emails				🔀 Back
SIP Devices						
IP Settings	Date	Subject	Body	Attachement	Status	Action
Caller ID			Hi new , A DID number 18111 has been unassigned from			
Speed Dial	2016-08-30 07:17:50	DID 18111 unassigned from your	your account. For more info, Please visit on our website http://www.inextrix.com or contact to our support at		Not Sent	C = 1
Blocked Codes		account 9622806884	samir.doshi@gmail.com Thanks, iNextrix Technologies. Pvt. Ltd.			
DID						
Subscription			HI new You have successfully added new package. For more info, Please visit on our website			
Invoice	2016-08-30 07:17:49	new , Your account added package	http://www.inextrix.com or contact to our support at samir.doshi@gmail.com. Thanks, iNextrix Technologies.		Not Sent	C ≡ ∎
Refill Report			Pvt. Ltd.			
Charges History	<		Records 10 Y 1 - 6 of 6 Records			>
CDRs	« Page 1	of1 > > C 1-6 of 6	Records 10 Y 1 - 6 of 6 Records			
Emails						
Alert Threshold						

Alert Threshold

Customer Profile	Customers / Profile / Alert Threshold		Ħ Back
SIP Devices			
IP Settings	Alert Threshold		
Caller ID	Email Alerts ?	Yes 👻	
Speed Dial	Balance Below	0	
Blocked Codes	Email	sales@inextrix.com	
DID			
Subscription		Save	
Invoice			
Refill Report			
Charges History			
CDRs			
Emails			
Alert Threshold			

5.3.4 Email Mass

Email Mass

Account Type Prepaid V Status Active V	~	Select	Email Template	~	default	Rate Group
Status Active				~	Prepaid	Account Type
				~	Active	Status
Entity TypeSelect				~	Select	Entity Type

Email Mass Field Description

Rate	Rate group is an essential field for billing. You can create rate group by navigating to Tariff -> Rate
Group	group.
Account	Type Select customer account type. Prepaid OR Postpaid.
Status	Account status.
Entity	Type Account entity type whether its customer or provider.
Email	Template Select appropriate template from drop-down.

Compose Email

	mail		
_			
From	admin@astpp.org		
То	sales@inextrix.com,support@inextrix.com		
Subject	#NAME#, welcome to #COMPANY_NAME#		
Message	HI H2 H3 H4 H5 H6 ¶ B I S	- != !≡ @ & ✓	
	Welcome #NAME#,		
	Your account has been added in #COMPANY_NAME	ie.	
	Here is your account information,		
	Account Number : #NUMBER# Password : #PASSWORD#		
	For information please visit #COMPANY_WEBSIT	E# or contact our support department at	
	#COMPANY_EMAIL#.		
	Thanks, #COMPANY_NAME#		
	· · · · · · · · · · · · · · · · · · ·		
Attach files:	Browse. No file selected.	,d	
Attach files:			
Attach files:	Browse. No file selected.	,	
Attach files:			
Atlach files:	Attach files	nd Cancel	
Attach files:	Attach files Se		
Attach files:	Attach files Se	VALUE	
Attach files:	Attach files Se KEY #NAME#	VALUE This tag use to print Firstname + Lastname	
Attach files:	Attach files KEY #NAME# #USERNAME#	VALUE This tag use to print Firstname + Lastname This tag use to print user number	
Attach files:	Attach files KEY #NAME# #USERNAME# #PASSWORD#	VALUE This tag use to print Firstname + Lastname This tag use to print user number This tag use to print password	
Attach files:	Attach files KEY #NAME# #USERNAME# #PASSWORD# #COMPANY_EMAIL#	VALUE This tag use to print Firstname + Lastname This tag use to print user number This tag use to print password This tag use to print company email id	
Attach files:	Attach files KEY #NAME# #USERNAME# #DSERNAME# #COMPANY_EMAIL# #COMPANY_NAME#	VALUE This tag use to print Firstname + Lastname This tag use to print user number This tag use to print password This tag use to print company email id This tag use to print company name	

Compose Mail Field Description

From	Specify sender's email address here.
То	Specify receiver's email address here.
Subject	Subject of email.
Message	Content of email.
Attach Files	You can attach maximum 4 files.

5.4 Accounting

Open Source Voip Billing	Accounts -	Accounting -	DIDs 🕶	Tariff▼	Carriers •	Switch -	Call Reports 🕶	Configuration -	Administrator Admin
Invoices		Invoices							QSearch
		Subscriptions							
		Refill Report							
		Charges Histo	ry						
		Refill Coupon							

Related pages

5.4.1 Invoices

This page will display list of Invoice & Receipt generated for customers and resellers.

Also admin & reseller can generate manual invoice for their customer.

You can download invoice in PDF format.

									Generate Invo
Number	Туре	Account	Generated Date	From Date	Due Date	Last Pay Date	Amount(USD)	Outstanding Amount(USD)	Action
INV_00006	Manually	inex customer 9270441524	2016-09-20	2016-09-01	2016-09-27		0.0000	0.0000	۵
INV_00005	Manually	inex customer 9270441524	2016-09-19	2016-09-01	2016-09-26	2016-09-19	1.0000	0.0000	Paid
B — —	Accordingly	1000	2210.00.00						۵
B INV_000022	Automatically	559103267 559103267	2016-08-22	2016-08-22			3.21543	0.00000	۵
0	Harvally		2010/08/08	2710-08-18	274.00.2		1.0176	1.1176	A B

Action Column In Grid

4	Download	Use to download Details.
	Edit	Use to edit invoice information
	Delete	Delete invoice from list

5.4.2 Subscription

Subscription is kinda package that will be applicable to customer upon invoice generation OR assignment.

Example : If admin would like to charge customers \$100 for Equipment usage on monthly/Daily basis then they can create such type of subscription packages from this module and assign it to entire rate group to individual customers.

Cro	eate 🛛 😣 Delete]							
	Name	Rate Group	Amount(USD)	Prorate	Billing Cycle	Status	Created Date	Modified Date	Action
	Demo 1	Test	1.0000	Yes	Monthly	Active	2016-08-05 19:18:13	2016-08-11 11:22:52	
	Demo 2	Test	1.0000	Yes	Daily	Active	2016-08-06 17:01:18	0000-00-00 00:00:00	C 🗴

Create	
	To create new subscription
🙁 Delete	

To delete multiple subscriptions

Create Subscription

Top panel Grid Button

Create new subscription package using below page,

Create Subscription

lame *		
ate Group	Select	•
mount		
rorate	Yes	•
Bill Cycle	Daily	•
itatus	Active	•

Add/Edit subscription form fields description

Name	Subscription name
Rate Group	Select Rate group. Charges will be applicable to all customers who are using selected Rate Group
Amount	Subscription charge
Prorate	Enable it to apply prorate based charge to customer
Bill Cycle	Daily OR Monthly bill cycle to apply charge on customer
Status	Active OR Inactive subscription

How to create subscription

5.4.3 Refill Report

Report will display payment transaction information.

×

Export				
Date	Account	Amount(USD)	Refill By	Note
214.00.7 10.00.00	dens (catoria)	0.000	Automatica de la constante de	Andrege using Roll couper Artific couper for BATHE()
2016-08-16 17:30:15	demo (reseller)	1.84423	Admin	
211-08-16-17 (21-28	dens (mather)	-10.000	Augusta.	
2010/08/16 12:20:20	dens (mader)	100,0000	Augusta .	

5.4.4 Charges History

This report will display all the charges information which apply to specific account.

By this report admin know the complete system transaction same way reseller can show their sub entity transactions.

Created Date	Invoice Number	Account	Charge Type	Before Balance (USD)	Debit (-) (USD)	Credit (+) (USD)	After Balance (USD)	Description
2114-08-08 05-24-28	100,00011	Acres readler (Scott Street)	1410	0.000.00.007			0.040.04647	-
27% (B. H) B (27.12	100,00011	Acres readly (see) and (1410	0.000.00107		1.1100	0.040.00147	Anapoli socio presite
2016-09-18 16:39:54	INV_00004	inex customer (9270441524)	manual_inv	87.0000	1.0000	0.0000	86.0000	test
2016-08-16 17 36-07	100,00000	1000100	#1071.00MD	0.000	-		1.040.0000	1000-000
2016-08-16 17-38-16	100,00000	Arrist staffer (Scott Street)	1410	4,862,71276		0.00000	0.040.00047	Proposition and a procession
Total	-	-	-	-		1.071	-	

5.4.5 Refill Coupon

Using refill coupon number user can refill their own account.

Only admin & reseller can create refill coupon.

Create	:						
Coupon Number	Description	Account	Amount(USD)	Created Date	Used?	Used Date	Action
10007124		1224542788	1.1110	2010/07/2011 10:00	×	-	
32076430	test	inex (customer)	1.0000	2016-07-30 12:14:02	~	2016-09-13 10:46:12	•
11000		10040789		214.07.07.12.14.02	×	-	
10021270		100709400		214.01.01.11.01.01	×		1
10004090		10060789		214.07.07.12.14.02	×		
10,786,075		100700400	1.12100	2010/07/08 12:10:00	×	-	•

5.4.6 Payment Report

Report will display payment transaction information.

Date	Account	Amount	Payment By	Note
1000 C 1000 C	11 ALM 11 ALM			100.00
1000 CT - 1000	annuare banque (COMM		1000	
1000 CT 1000 CT	anness spearar measure		1000	and a second
	annual of the spin of the later	10.000.00		family introget
100 C 100 C 10		1.000.00	1000	101110-000
•		III		•
G « • Page 1 of 2	> >> 10 • 1 - 10 of 19 Records			

5.5 DIDs

Accounts - Accounting -	DIDs	Tariff▼	Carriers -	Switch -	Call Reports -	Configuration -	Report A Bug	Donate Us	
	DIDs								

Manage DIDs (Direct Inward Dialing)

Manage your DIDs from this module. You can add number of DIDs, map it with accounts and route to appropriate destination. ASTPP gives you various options like LOCAL, PSTN and OTHER to route incoming calls.

DID	Account	Is purchased?	Call Type	Destination	Increments	Cost	Setup Fee	Monthly fee	Status	Action
										C D
-										2 8
			-							đ
-		-								6

Top panel Grid Button

🛟 Create	
	To Create New DID
🙁 Delete	To Delete multiple DIDs
1mport	
	To Import DID number from CSV file
🛃 Export	
	To Export DID number in CSV file

Related pages

5.5.1 Create DIDs

You can create new DID using below page,

ID Informa	ition		Billing Inform	nation	
DID *			Account	Select	•
Country *	Alaska	•	Connection Cost		
City			Included Seconds		
Province			Per Minute		
Provider	A2Z Provider (9339923427)	•	Cost Initial		
ID Setting			Increment Increment		
Call Type	Select	-	Setup Fee		
Destination			Monthly		
Concurrent Calls			Fee		
Status	Active	•			

DIDs Add/Edit Field description

DID Information

DID Enter	unique numeric DID number
Country	Select country of DID
City	DID City
Province/State	DID State
Provider	Select provider to whom this DID belongs to

DID Billing

Account	Select account number you wish to assign DID
Increments	Rate of increment to calculate call cost.
	Example : 60 to charge every minute
Cost	Cost per minute
Included Seconds	Define seconds will be free from the call duration for each call
Setup Fee	One time Setup fee
Monthly Fee	Monthly recurring fee
Connection Fee	Connection fee to charge customer minimum when their call will be connected

DID Setting

Call Type	LOCAL : Wish to route call to Local extension
	PSTN : Wish to route call to PSTN Number
	OTHER : If you wish to route call to custom destination
Destination	Set appropriate destination based on call Type.
	Example :
	LOCAL : 1001 (Local Extension number)
	PSTN : 1800214018 (PSTN number)
	OTHER : sofia/default/1234567890@192.168.1.3
	OR
	sofia/gateway/gwname/121423232
Max Channels	Maximum allowed concurrent channels for DID calls.
	0=Unlimited

How to create DID

5.5.2 Import DIDs

Note: File must be in the following format(.csv): DID,Country,Account,Per Minute Cost(USD),Initial Increment,Increment,Setup Fee(USD), Monthly Fee(USD),Call Type,Destination,Status

535345345,India,2096034879,1,0,1,0,0,PSTN,1234567890,Active

65456456, Alaska, 2096035512, 0.5, 0, 1, 0, 1, DID-Local, 1002, Active

Import Proce	255	
File must <mark>b</mark> e ir	n the following format(.csv):	
DID,Country,Acco	ount,Per Minute Cost(USD),Initial Increment,Increment,S	Setup Fee(USD),Monthly Fee(USD),Call Type,Destination,Status
Import DIDs:		Download sample file: Click Here
Import DIDS: Provider:	Select 👻	Download sample file: Click Here
1.	Select • Select file	Download sample file: Click Here

Select provider, csv file of DID and click on Import button, It will display below sample output. You can confirm format if its system recognize your imported file correctly. If all looks good then click on process and system will import all your DIDs.

DID	Country	Account	Per Minute Cost(USD)	Initial Increment	Increment	Setup Fee(USD)	Monthly Fee(USD)	Call Type	Destination	Status
12345	Alaska	9270441524	0.5000	0	1	1.0000	0.0000	PSTN	1234567890	Active
121212	India	9270441524	0.2000	0	60	0.5000	1.0000	DID-Local	9270441478	Active
1234567890	Alaska	9270441478	0.3000	30	0	1.0000	0.0000	SIP-DID	9270441524	Active

5.5.3 Export DIDs

Export your DIDs by clicking on Export button.

If you would like to export specific criteria DIDs then you can search those DIDs using search feature and then export. Below is an example with search option,

														QSea
Sea	rch													
DID				Cour	ntry			Account				Initial Increme	ent	
		Beg	gins With 🔹	S	elect	•		inex cus	tomer (🝷				Is Equal	To 🔻
Call 1	Гуре			Dest	ination			Status						
S	elect	•				Begins W	ith 🔻	Selec	t ▼					
													Search	Clear
														Close
00	ireate 🛛 🕻	3 Delete	1 Import	📩 Export										
_	Treate	Delete	Account	Export Per Minute Cost(USD)	Initial Increment	Increment	Setup Fee(USD)	Monthly Fee(USD)	Call Type	Destination	Status	Modified Date	Is Purchased?	Action
][_			Per Minute		Increment			Call Type	Destination	Status	Date	Is Purchased?	Action
][_		Account	Per Minute		Increment 0			Call Type PSTN	Destination	Status		Is Purchased?	Action
	DID 111111	Country	Account inex customer	Per Minute Cost(USD)	Increment 0	0	Fee(USD)	Fee(USD)		Destination	Active	Date 0000-00-00 00:00:00	Release(C)	
	DID	Country	Account inex customer (9270441524) inex customer	Per Minute Cost(USD)	Increment		Fee(USD)	Fee(USD)		Destination		Date 0000-00-00		
	DID 111111	Country Alaska	Account inex (9270441524) inex customer (9270441524)	Per Minute Cost(USD)	Increment 0	0	Fee(USD)	Fee(USD)	PSTN	Destination	Active	Date 0000-00-00 00:00:00 0000-00-00	Release(C)	
	DID 111111	Country Alaska	Account inex customer (9270441524) inex customer	Per Minute Cost(USD)	Increment 0	0	Fee(USD)	Fee(USD)	PSTN	Destination	Active	Date 0000-00-00 00:00:00 0000-00-00	Release(C)	
	DID 1111111 12345	Country Alaska Alaska Alaska	Account inex customer (9270441524) inex customer (9270441524) inex customer	Per Minute Cost(USD) 0.0000 0.0000	Increment 0 0 0	0	Fee(USD)	Fee(USD) 0.0000 0.0000 0.0000 0.0000	PSTN DID-Local	Destination	Active Active	Date 0000-00-00 00:00:00 00:00:00 00:00:00 00:00:00 00:00:00	Release(C) Release(C)	

Exported .csv file,

		Α	В	С	D	E	F	G	Н		J	K	L	М
1	DID) Cour	intry	Account	Per Minute Cost(USD)	Initial Increment	Increment	Setup Fee(USD)	Monthly Fee(USD)	Call Type	Destination	Status	Modified Date	Is Purchased
2	11	11111 Alas	ska	9270441524	0	0	0	C	(PSTN		Active	00:00:00 00-00-000:00	Purchase by Customer
3	1	12345 Alas	ska	9270441524	0	0	0	C	(DID-Local		Active	00:00:00 00-00-000:00	Purchase by Customer
4		102 Alas	ska	9270441524	0	0	0	C	(DID-Local		Active	0000-00-00 00:00:00	Purchase by Customer

5.6 Tariff

Open Source Voip Billing	Accounts 🗸	Accounting -	DIDs 🗸	Tariff▼	Carriers -	Switcl	h ← Call Reports ←	Configuration •	Administrator Admin
Rate Groups				Rate Gro	oups				QSearch
				Originat	ion Rates				
				Package	s	•	Packages		
							Usage Report		
								_	

Related pages

5.6.1 Rate Group

Rate group is an important module of ASTPP. This belongs to customer and rating.

Groups	🔀 Delete									QSear
Nam		Initial Increment	Default Increment	Markup(%)	Rate Count	Status	Created Date	Modified Date	Action	
defau	LCR	0	60	0	1	Active	2016-07-25 00:00:00	2016-07-26 00:00:00		
	age 1 of 1		- 1 of 1 Records 10		ecords		00:00:00	2010 07 20 00.00		

Create Rate Group

Create Rate Group

ate Group Inforn		
Name *		
Routing Type	LCR -]
Initial Increment *		
Default Increment *		
Markup(%) *	0	
Trunks	inex_trunk	
	~	
Status	Active -	
L		

Rate Group Add/Edit Field description

×

Name	Name of Rate Group
Incre-	Rate of increment to calculate call cost.
ment	Example : 60 to charge every minute
	This increment will be useful when increment is not defined in origination rate.
Markup	(%d ditional charges will be applicable on call cost.
	Example : If 10% markup defined in rate group and customer made call of \$1 then system
	will charge customer 10% extra on \$1 and that will be \$1.1.
Trunks	Select the trunks for LCR and routing.
	If no trunks selected then customers who are having same rate group wouldn't be able to make outbound
	calls.
Status	Select status of rate group



How to create rate group

5.6.2 Origination Rates

Origination rates belongs to Rate group.

We can consider origination rates as customer rates / sell rates as these rates will be applicable on customers.

Create S Delete Stront											
	Code	Destination	Connect Cost(USD)	Included Seconds	Per Minute Cost(USD)	Initial Increment	Increment	Rate Group	Status	Modified Date	Action
	1	USA	0.0000	0	1.0000	30	60	default	Active	2016-08-08 19:27:23	2
			0.0000	0	0.0000	6	6	default	Active	0000-00-00 00:00:00	2
			0.0000	0	0.0000	6	6	default	Active	0000-00-00 00:00:00	6
	91		0.0000		0.5000	0		default	Active	0000-00-00 00:00:00	C 🕯

Related pages

Create Origination Rate

ate Informa	ation	Billing Information	
Rate Group	default	✓ Connect Cost	
Code *		Included Seconds	
Destination		Per Minute Cost	
Status	Active	Initial	
		Increment	
		Increment	
		Force TrunkSelect	•

Origination Rates Add Form Fields Description:

Rate Group	Select the rate group for origination rate
Code	Prefix of origination rate. Example: 91
Destination	Description for rate. Example : India
Precedence	Priority of rate
Connect Cost	Connection fee to charge customer minimum
	when their call will be connected
Included Seconds	Define seconds will be free from the call duration
	for each call
Per Minute Cost	Cost per minute
Increment	Rate of increment to calculate call cost Example : 60 to charge every minute
Force Trunk	To force call to route using specific trunk.
	Note : Leave it – Select – if you would like to
	do LCR among trunks which are selected in rate
	group

How to create origination rate

Import Origination Rate

Note: File must be in the following format(.csv): Code,Destination,Connect Cost,Included Seconds,Per Minute Cost, Increment,Precedence.

1,USA,0.0000,0,1.0000,30,60

91,India,0.0000,0,0.5000,0,0

oort Originatio	on Rates	
File must be ir	n the following format(.csv):	
Code,Destinatior	n,Connect Cost,Included Seconds,Per Minute Cost,Initial	Increment,Increment.
Import Origin	ation Rates:	Download sample file: Click Here
Rate Group:	default 👻	
Force Trunk:	Select	
Select the file:	Select file	
Check Header:		

Select rate group, force trunk and csv file of origination rates and click on Import button, It will show below output to confirm if rates format are correct. Once you confirm then click on process and it will import those rates in system

ode	Destination	Connect cost	Included seconds	Per minute cost	Initial increment	Increment
	USA	0.0000	0	1.0000	30	60
91	India	0.0000	0	0.5000	0	0

Export Origination Rate

Export your Origination rates by clicking on Export button. If you would like to export specific criteria rates then you can search those rates using search feature and then export.

Below is an example with search option,

ear	rch											
ode				Destination		Connect Cost	Connect Cost			econds		
		Begins	With 👻		Begins With 🔹		Is Equa	al To 🔻		I	Is Equal To	•
er M	linute Cost			initial Increment		Increment			Rate Group	D		
		Is Equal	то 🝷		Is Equal To 🔹		Is Equa	I To 🔻	default	-		
atus	S											
	alact	-										
	elect	-										
	elect	•										
	elect	•										
	elect	•						Delete	earch Record	Search		Clear
	elect	•						Delete	Search Record	Search		Clear
	elect	•						Delete	Search Record	Search		
	elect	•						Delete	Search Record	Search		Clear
	elect	•						Delete	Search Record	Search		
	elect	•						Delete	Search Record	Search		
	elect	•						Delete	Search Record	Search		
Se								Delete	Search Record	Search		
Se			🖕 import	rt				Delete	Search Record	Search		
Se	reate	Delete										Close
Se			import		Per Minute Cost(USD)	Initial Increment	Increment	Delete :	Status	Search		
Se	reate	Delete		Included Seconds	Per Minute Cost(USD)	Initial Increment	Increment 60				d Date	Close
) Cr	Code	Delete	Connect Cost(USD	Included Seconds				Rate Group	Status	Modified	d Date	Close

Exported .csv file,

	A	В	С	D	E	F	G	Н	1	J
1	Code	Destination	Connect Cost(USD)	Included Seconds	Per Minute Cost(USD)	Initial Increment	Increment	Rate Group	Status	Created Date
2	1	USA	0	0	1	30	60	default	Active	2016-07-26 15:11:50
3	91	India	0	0	0.5	0	0	default	Active	2016-09-14 07:09:13

5.6.3 Packages

Package feature allows you to prepare various free packages for specific destinations and offer to your customers. Customers can take benefit of this and can make free calls to selected destinations.

ckag 🗘 G	reate 🛛 😢 De	lete							QSea
	Name	Rate Group	Included Seconds	Applicable For?	Status	Created Date	Modified Date	Action	
	test	default	1000	Outbound	Active	2016-07-30 18:22:35	2016-08-11 11:26:03	6	
				Outbound	Active		2016-08-11 11:26:03	6	

Related pages

Create Package

Package Information		
Name *		
Rate Group *	default	
Included Seconds *		
Applicable For?	Outbound	
Status	Active	

Package Details Add/Edit Form Fields Description

Name	Package Name
Rate Group	Select rate group. The customers who are having that rate group will get benefit of this package.
Included Sec- onds	Defined free seconds of package

Package edit you will get two tabs

Package Details	Allow to change package details
Package Patterns	Form this tab you can select destinations



Package Codes

This tab is useful to add destination for package.

If you have entered 91 and 1 destination in package then customer who are getting benefit of this package will be able to make free calls to 91 and 1 destination.

Package Details	Package List /	Package List / Details / Codes							
Package Codes	🕒 Add	1 Import Delete		Search					
		Code	Destination	Action					
		1	USA						
		91	India	•					
	× 、	Page 1 of 1 > > C 1 - 2 of 2 Records 10	▼ 1 - 2 of 2 Records						

Usage Report

Package usage report is shows the usage of the customer for specific package.

Export		
Package Name	Account	Used Seconds
new_pck	iNextrix Test (1893579064)	160
new_pck	2889696180 (2889696180)	160
new_pck	9678101688 (9678101688)	160
inex_pkg	iNextrix Test (1893579064)	60
inex_pkg	2889696180 (2889696180)	60
inex_pkg	inex reseller (6507428389)	8

5.7 Carriers

Open Source Voip Billing	Accounts 🗸	Accounting -	DIDs 🕶	Tariff▼	Carriers -	Switch 🗸	Call Reports 🕶	Configuration -	Administrator Admin
ſrunks					Trunks				QSearch
					Terminatio	n Rates			

Related pages

5.7.1 Trunk

Trunk is key module for LCR routing and associated with termination rates and provider account.

0	Create	3 Delete										
	Name	Provider	Gateway Name	Failover GW Name #1	Failover GW Name #2	сс	Codecs	Rate Count	Status	Created Date	Modified Date	Action
	inex_trunk	A2Z (Provider)	iNextrix			0		1	Active	2016-09-14 11:48:23	2016-09-14 17:42:19	2 1

Top panel button

🔂 Create	
	To add new trunk
🙁 Delete	
	To delete multiple trunks

Create Trunk

nformation			Settings —		
Name *			Number Translation		
Provider *	A2Z Provider (9339923427)	•	Codecs		
Gateway Name *	iNextrix	•	Priority		
Failover GW Name #1	Select	•	Status	Active	•
Failover GW Name #2	Select	•			
СС	0				

Trunk Add/Edit Form Fields Description:

Trunk	Trunk name
name	
Provider	Select provider to whom this trunk belongs to
Gateway	Select gateway on which call will be terminated
Failover	Select failover gateway on which call will be terminated. If primary gateway failed in
Gateway	establishing call then system will try call using failover gateway.
Max	Number of Maximum concurrent call for this trunk
Channels	
Number	If you wish to translate number with some defined number for trunk then use this feature.
Transla-	Ex: "011/2222" (You can define multiple translations like "011/2222","02/33")
tion	That means from called number 011 is replaced by 2222.
Codec	Enter codecs if you want call to use specific codecs only
Prece-	Priority of trunk
dence	



5.7.2 Termination Rates

Termination rates belongs to Trunk. We can consider termination rates as carrier rates / buy rates as these rates will be applicable on providers.

Before dialing number to gateway, system will do LCR process in termination rates and find out best match and low cost prefix and dial out using that.

0	Create	8 Delete	🔹 import	L Export										
	Code	Destination	Connect Cost(USD)	Included Seconds	Per Minute Cost(USD)	Initial Increment	Increment	Priority	Strip	Prepend	Trunk	Status	Modified Date	Action
	1	USD	0.0000	0	0.0001	1	1	0			DID-OUT- MBV- TRUNK	Active	2016-08-16 20:34:08	2 1
	1	100	0.0000	1	2.0000	3	4	5	6	7	AZZ CLI Trunk	Active	2016-09-13 17:25:25	
		señora	1,0000	1	1.0000	0	1	1		1	AZZ CLI Trunk	Active	2016-09-13 17:27:04	
	14	-	0.0000	1	2.0000	3		5	6	2	AZZ CLI Trunk	Active	2016-09-13 17:29:04	2

Related pages

Create Termination Rate

ate Inforr	mation	Billing Information	
Trunk *	inex_trunk	▪ Connect Cost	
Code *		Included Seconds	
Destinatio	n	Per Minute Cost	
Strip		Initial	
Prepend		Increment	
Status	Active	• Priority	

Trunk	Select trunk for termination rate
Code	Prefix of termination rate. Example: 91
Destination	Description for rate. Example : India
Strip	To remove any specific prefix from dialed number
Prepend	To append any specific prefix in dialed number
Connect	Connection fee to charge customer minimum when their call will be connected
Cost	
Included	Define seconds will be free from the call duration for each call
Seconds	
Per Minute	Cost per minute
Cost	
Initial	Here specify cost which you have to take when call is initiate
Increment	
Increment	Rate of increment to calculate call cost
	Example : 60 to charge every minute
Precedence	Priority of rate. If LCR found same prefix with same rate for different trunk then based on prece-
	dence/priority level trunk will be selected.

How to create termination rate

Import Termination Rate

Note: File must be in the following format(.csv): Code,Destination,Connect Cost,Included Seconds,Per Minute Cost,Increment, Precedence,Strip,Prepend.

1,UNITED STATES,0,10,0.5,60,0,0,0

91,India,0.1,15,0.25,60,0,0,0

Import Terminatio	on Rates				
	the following format(.csv): .Connect Cost,Included Seconds,Per M	inute Cost,Initial Increment,Incre	ement,Precedence,Strip,Prep	end.	
Import Termin	ation Rates:		Download sample file:	Click Here	
Trunk List:	inex_trunk 👻				
Select the file:	Select file				
Check Header:					
					Import Cancel

Select trunk and csv file of termination rates and click on Import button, It will show below output to confirm if rates format are correct. Once you confirm then click on process and it will import those rates in system.

ode	Destination	Connect cost	Included seconds	Per minute cost	Initial increment	Increment	Precedence	Strip	Prepend
1	USA	0.0000	0	0.0001	1	1	0		
91	India	0.0000	0	0.2000	0	0	0		

Export Termination Rate

Export your Termination rates by clicking on Export button. If you would like to export specific criteria rates then you can search those rates using search feature and then export.

Below is an example with search option,

	ġ.											QSearch	🔁 Batch Up
earch													
ode			Destination	1		Col	nnect Cost				Included Seco	onds	
	Begins W	/ith 🝷		Beg	gins With 👻				Is Equal To	-		Is Equal To	-
er Minute Cost			Initial Incre	ment		Inc	rement				Priority		
	Is Equal 1	To 🔻		Is E	qual To 👻				Is Equal To			Begins Wit	h 🔻
unk						Sta	atus						
inex_trunk •						- T-	-Select	-					
										Delete Se	arch Record	Search	Clear Close
Create	lete 🛃	import Ex	port							Delete Se	arch Record	Search	
		import	port Included Seconds	Per Minute Cost(USD)	Initial Increment	Increment	Priority	Strip	Prepend	Delete Se	Status	Search Modified Date	
Code Des			Included			Increment	Priority	Strip	Prepend				Close
Consta Dela		import Sco	nort							Delete Se	arch Record	Search	

Exported .csv file,

	A	В	С	D	E	F	G	Н	1	J	K	L	M
1	Code	Destination	Connect Cost(USD)	Included Seconds	Per Minute Cost(USD)	Initial Increment	Increment	Priority	Strip	Prepend	Trunk	Status	Created Date
2	1	USD	0	0	0.0001	1	1	C			inex_trunk	Active	2016-08-01 11:09:32
3	91	India	0	0	0.2	0	0	C			inex_trunk	Active	2016-09-14 07:08:59

5.8 Switch

ASTPP Open Source Voip Billing	Accounts -	Accounting -	DIDs▼	Tariff▼	Carriers •	Switch 🗸	Call Reports 🕶	Configuration •	Administrator Admin
						SIP Device	25		
						Gateways			
						SIP Profile	25		
						Freeswitc	h Server		
						IP Setting	s		
						Caller ID			

Related pages

5.8.1 Sip Devices

To navigate this Menu System Switch -> SIP Devices

Cre	eate 😢 Delet	te									
	User Name	Password	SIP Profile	Account	Caller Name	Caller Number	Voicemail	Status	Created Date	Modified Date	Action
	2513796766	eac7db	default	inex customer (9270441524)	9270441524	9270441524	~	Active	2016-09-07 11:14:13	0000-00-00 00:00:00	
	9270441524	9270441524	default	inex customer (9270441524)			~	Active	2016-09-14 12:53:28	0000-00-00 00:00:00	2

From here user can create sip devices for the customer to make call. To Create sip devices click on Add SIP Devices and you will get popup form to create device. Assign this device to appropriate customer and suitable sip profile.

evice Inform	mation		Voicemail O	ptions	
Username *	9885480764	0	Enable	True	•
Password *	c44eed	C	Password		
Caller Name			Mail To		
Caller Number			Attach File	True	•
Account *	Anindita Dass (4671918916)	•	Local After Email	True	•
Status	Active	•	Send All Message	True	•
SIP Profile *	default	-			

Create SIP Device

Device Information

Username	Here specify the name of user
Password	It is use to set password of user
Caller Name	Write caller name here
Caller Number	Write called number here
Account	Select account of user
Status	Device status should be active/inactive
Sip Profile	Select sip profile

Voicemail Options

Enable	From here set status of voice mail
Password	Set your voice mail password here
Mail To	Define your email address
Attach File	If it set yes then you will get file in attachment otherwise not
Local After Email	Write called number here
Send All Message	If it set true then user will get all message



How to create SIP device

5.8.2 Gateways

itew	ays									QSea
00	reate 8 Delete]								
	Name	SIP Profile	Username	Proxy	Register	Caller-Id-In-Form	Status	Created Date	Modified Date	Action
	iNextrix	default			False	True	Active	2016-08-16 15:45:25	2016-08-16 18:27:38	
"	Page 1	of 1 🔉 » 🤇	1 - 1 of 1 Records	10 v 1 - 1 of 1 l	Records					

Create Gateway

sic Inform	nation	Optional Information	
ame *		From- Domain	
(P Profile	default	▼ From User	
sername		Realm	
assword		Extension	
roxy *		Expire Seconds	
utbound- ^r oxy		Reg- Transport	
egister	True	Contact Params	
aller- l-in-from	True	Ping	
atus	Active	▼ Retry- Seconds	
		Register- Proxy	
		Channel	
		Dialplan Variable	.:

Gateways Add/Edit Form Fields Description:

Basic Information

Name	Username of gateway
SIP Profile	Select appropriate sip profile
Username	Same as gateway name
Password	Password for authentication
Proxy	Here specify the ip of proxy server
Outbound-Proxy	Here specify the ip of outbound-proxy
Register	True / False
Caller-Id-In-From	True / False
Status	Active / Inactive

Optional Information

From-Domain	Domain url
From User	From user : <i>optional</i> same as username
Realm	
Extension	Extensions to be registered with your voip provider
Expire Seconds	Expire in seconds
Reg-Transport	Which transport to use for register
Contact Params	
Ping	Send an options ping every x seconds, failure will unregister
	and/or mark it down
Retry-Seconds	How many seconds before a retry when a failure or timeout occurs
Register-Proxy	Send register to this proxy: optional same as proxy
Channel	
Dialplan Variable	



How to create gateway

5.8.3 SIP Profiles

	ofile reate					Q 5ear
	Name	SIP IP	SIP Port	Status	Profile Action	Action
	default	\$\${local_ip_v4}	5060	Active	Start Stop Reload Rescan	
«	Page 1 of 1	>>> C 1 - 1 of 1 Records	10 💙 1 - 1 of 1 Records		, 	

Create SIP Profile

Create SIP Profile	
Name *	
SIP IP *	
SIP Port *	
Status	Active 👻
	Save Cancel
	Save

Sip Profile List Add/Edit Form Fields Description:

SIP Profile name	Name of sip profile
sip-ip	IP address to bind to for SIP traffic. DO NOT USE HOSTNAMES, ONLY IP ADDRESSES
sip-port	Port to bind to for SIP traffic
Status	Active / Inactive

How to create SIP profile

5.8.4 Freeswitch Server

eswitch Servers						QSear				
• Create										
Host	Password	Port	Status	Created Date	Modified Date	Action				
127.0.0.1		8021	Active	2016-07-26 20:55:07	2016-09-14 12:52:09					
(Page 1 of 1 >) (C) 1 - 1 of 1 Records										

Freeswitch Server is use to store freeswitch server details with host and location

Once is there any changes are done in Gateways or sip profiles at that time its need to reload Freeswitch servers that time this information are useful to reload freeswitch.

Create Freeswitch Server

Host *			
Password			
Port *			

Freeswitch Server Add/Edit Field description

Host	Set the default domain to the host						
Password	Password of freeswitch server						
Port	Port of freeswitch						



How to create freeswitch server

5.8.5 IP map(ACL)

🔁 Ado	d 🛛 😢 Delete							
	Account	Name	IP	Prefix	Status	Created Date	Modified Date	Action
	inex	test			Active	2016-08-01 14:26:38	0000-00-00 00:00:00	
	test	demo			Active	2016-08-09 21:29:22	0000-00-00 00:00:00	6

Create IP map(ACL)

Add IP Map

IP Мар		
Account	A2Z Provider (9339923427)	•
Name *		
IP *		
Prefix		
Status	Active	-



IP Map Field Description

Account	Select account number you wish to assign IP based authentication.
Name	Give name of IP map.
IP	Enter IP address.
Prefix	Enter prefix value.

5.8.6 Caller ID List

ller II	D					QSean
🔂 Ad	d Oelete					
	Account	Caller ID	Status	Created Date	Modified Date	Action
	inex customer (9245677744)	9245971241	Active	2016-09-15 17:38:06	2016-09-15 17:38:11	
«	< Page 1 of 1 > >>	C 1 - 1 of 1 Records 10 ✓ 1 -	1 of 1 Records			

×

Create Caller ID

Add Caller ID		×
Caller ID		
Account	A2Z Provider (9339923427)	-
Caller ID *		
Status	Active	•
	Save Close	

Caller ID Field Description

Account	Select account number you wish to assign caller ID
Caller ID	Enter ID of caller.

5.9 Call Reports

Accounts -	Accounting-	DIDs -	Tariff∽	Carriers	Switch	Call Reports	Configu	uration -	Report A Bug	Donate Us	
						Detail Reports	×				
						Summary Reports	•				
						Live Call Report					

Related pages

5.9.1 Detail Reports

Related pages

Customer

You can find CDRs entry under reports menu. CDRs for different accounts

rom Date				To Date					CallerID			
015-02-01 00:00	0:01			2015-02-11	23:59:59					contair	ns	•
alled Number				Code					Destination			
	cor	itains	-			contains	5	•		contair	ns	•
uration				Debit				_	Cost			
	is e	qual to	•			is equal	to	•		is equa	il to	•
isposition				Account		_			Trunk			
Select Dispos	sition 💌			Select		•			Select	-		
ate Group				Call Type								
-Select	-			Select Tj	ype	•						
											Search	Clear
Export											Search	Clear
Export Date	CalleriD	Called Number	Code	Destination	Duration	Debit	Cost	Disposition	Account	Trunk	Search Rate Group	Clear
		Called Number	Code	Destination	Duration	Debit	Cost	Disposition	Account	Trunk		
Date	CalierID	Called Number						Disposition	a factor	Trunk	Rate Group	
Date	CalierID	Called Number		-				Disposition		Trunk Image: state st	Rate Group	

Reseller

Date	CallerID	Called Number	Code	Destination	Duration	Deblt	Cost	Disposition	Account	Rate Group	Call Type
1144	==										
1000	==										
	==									-	

Provider

Date	CallerID	Called Number	Code	Destination	Duration	Cost	Disposition	Account
							10000.00000	Anna Paula Marcala
							10000.00000	Section 2
			-		-		10000.00000	Section 2

5.9.2 Summary Reports

Related pages

Customer Summary

om Date			To Date				Accou	int			
015-01-01 00:00:01			2015-01-24 01:0	00:59			Se	ect	•		
de			Destination								
	contains	•		contain	IS	•					
										Searc	h Clear
										Search	h Clear
										Search	h Clear
										Search	
User	Code	Destination	Attempted Calls	Completed Calls	ASR	ACD	MCD	Bllable	deblt	Searct	h Clear Profit
User	Code	Destination	Attempted Calls	Completed Calls	ASR	ACD	MCD	Bilable	debit		

Reseller Summary

			To Date				Account				
2015-01-01 00:00:01			2015-01-23 23:59:5	9			Select		•		
ode			Destination								
	contains	-		contains		•					
										_	
										Search	Clear
User	Code	Destination	Attempted Calls	Completed Calls	ASR	ACD	MCD	Bilable	Price	Cost	Profit
User	Code	Destination	Attempted Calls	Completed Calls	ASR	ACD	MCD	Bilable	Price	Cost	Profit
User		Destination							Price	Cost	Profit

Provider Summary

015-02-01 01:00:01 ode	•	2015-02-02 Destination	23:59:59		Se	lect	•		
	•	Destination							
contains	-				_				
			cc	ontains 💌					
								Search	Clear
Provider	Code	Destination	Attempted Calls	Completed Calls	ASR	ACD	MCD	Bllable	Cost
No. of Concession, Name of							1.00		

Trunk Stats

Trunk Name	Attempted Calls	Completed Calls	ASR	ACD	MCD
1000 C	1000		1000		-
10001-010	- 100			10.0	1.00
		III			

5.9.3 Live Call Reports

Call Date	CID Name	CID Number	IP Address	Destination	Bridge	Read codec	Write codec	Call State	Duration
• • •	Page 1 of 1	> >> 500	 No Records 						

5.9.4 Email History List

Date	From	То	Body	Attachement	Status	Action
2015-08-22 07:02:52	admin@astpp.org	support@inextrix.com	Welcome test , Your account has been added in Your Company. Here is your account information, Account Number : #NUMBER# Password : fc8132 For information please visit www.astpp.org or contact our support department at admin@astpp.org. Thanks, Your Company		Sent	[℃]≡] ∰
2015-08-22 07:02:50	admin@astpp.org	support@inextrix.com	Welcome gdg , Your account has been added in Your Company. Here is your account information, Account Number : #NUMBER# Password : 2243fl For information please visit www.astpp.org or contact our support department at admin@astpp.org. Thanks, Your Company		Sent	CE
2015-08-22 07:02:50	admin@astpp.org	sales@inextrix.com	Welcome Erik Reseller, Your account has been added in Your Company. Here is your account information, Account Number : #NUMBER# Password : reseller For information please visit www.astpp.org or contact our support department at admin@astpp.org. Thanks, Your Company		Sent	C = 1
2015-08-22 07:02:50	admin@astpp.org	support@inextrix.com	Welcome customer, Your account has been added in Your Company. Here is your account information, Account Number: #NUMBER# Password : customer For information please visit www.astpp.org or contact our support department at admin@astpp.org. Thanks, Your Company		Sent	C = 1
2015-08-22 07:02:49	admin@astpp.org	sales@inextrix.com	Welcome provider , Your account has been added in Your Company. Here is your account information, Account Number : #NUMBER# Password : 7335503421 For information please visit www.astpp.org or contact our support department at admin@astpp.org. Thanks, Your Company		Sent	[C] ≡ [tt

5.10 Configuration

Open Source Voip Billing	Accounts 🗸	Accounting -	DIDs 🕶	Tariff▼	Carriers •	Switch 🗸	Call Reports -	Configuration -	Administrator Adm
Company Profile								Company Profile	
								Taxes	
								Email Templates	
								Countries	
								Currencies	
								Database Restore	
								Setting	

Related pages

5.10.1 Invoice Configuration

Whatever information you configure in invoice configuration that will be shown in generated invoice.

Basic information should be filled in this for like company name, address , website and contact information.

To configure this go to **Configuration -> Invoice Configuration**.

onfiguration —		Invoice Configuration	
Company Name	iNextrix Technologies Pvt. Ltd.	Invoice Notification	Yes 🔹
Address	509,Lilamani Corporate,Ashram Ro	Invoice Due Notification	Yes 🔹
City	Ahmedabad	Invoice Date Interval	7
Province	Gujarat	Notify Before Days	1
Country	India	Invoice Prefix	INV_
Zipcode	380014	Invoice Start Form	1
Telephone	+91-989-834-7245	Invoice Taxes Number	ABC 435 1XX 8XX 3XX
Fax	+1-855-580-1802	Company Personaliza	ation
Email Address	sales@inextrix.com	Website Domain	www.inextrix.com
Website	www.inextrix.com	Website Header	iNextrix Technologies Pvt. Ltd.
		Website Footer	iNextrix Technologies Pvt. Ltd.
		Company Logo	Select File

How to do invoice configuration

5.10.2 Taxes

Taxes are meant to be charge some amount on invoices. After creating taxes you can assign it to any of customer by clicking on Add Taxes button from customer list.

😷 Crea	ate 😮 Delete					
	Name	Priority	Amount(USD)	Rate(%)	Status	Action
	demo	1	10.0000	5.00000	Active	C 1

Taxes can assign to customer as well as resellers. You can specify tax in percentage (%) as well as specific amount to be charge on invoice.

To create Taxes go to Accounting menu in ASTPP portal. From popup select Taxes it will show you the list of the taxes. You can create new taxes by clicking on Create button.

Create Tax

Create Tax		×
– Tax Informati	on	
Name		
Priority *		
Amount *		
Rate(%)		
Status	Active	-



Add/Edit Taxes Form Fields Description

Priority	Priority is the sequence to apply taxes on invoice-able amount.
Amount	If there are tax amount is fixed for any usage then we can specified tax amount in this field.
Rate(%)	If Taxes amount is based on % and it should be calculated based on usage then we can specify rate on
	taxes in (%) in this field.
Descrip-	Taxes Description for reference.
tion	



How to create tax

5.10.3 Email Templates

To navigate this Menu System **Configuration -> Email Template.**

Name	Subject	Action
voip_account_refilled	Account credited Succesfully	
email_add_user	Welcome to ASTPP	
add_sip_device	Sip device added succesfully	
email_add_did	DID #DIDNUMBER# assigned to your account #NUMBER#	
email_remove_did	DID #DIDNUMBER# unassigned from your account #NUMBER#	6
email_new_invoice	Invoice created #INVOICE_NUMBER#	
email_low_balance	Low Balance notification #NUMBER#	
email_signup_confirmation	Confirmation to activate account	
email_forgot_user	Your account password changed	
email_forgot_confirmation	Reset your password	

This menu contains email body for system generated emails.

There are many email template so user can modify that template accordingly their needs.

Edit Email Template

Edit Email Template	
Email Template	
Name *	voip_account_refilled
Subject *	Account credited Succesfully
Body	File ▼ Edit ▼ Insert ▼ View ▼ Format ▼ Table ▼ Tools ▼
	★ ★ Formats ★ B I E E E E E E E ★ E ★ E ★ E
	H #NAME#,
	Your account has been succesfully credited with #REFILLBALANCE#. Your account available balance is #BALANCE#.
	For more info, Please visit on our website #COMPANY_WEBSITE# or contact to our support department at #COMPANY_EMAIL#.
	Thanks,
	#COMPANY_NAME#
	P Words: 35
	Save Cancel
	Save

Email Add / Edit Field description

Template Name	Here specify the name of template
Subject	Email subject
Body	Email content

5.10.4 Countries

🕂 Create	Collete		
	Name	Action	
	Alaska	(7) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1	
	Albania	(2)	
	Algeria	(7)	
	AmericanSamoa	67 11	
	Andorra		
	Angola	(7)	
	Antarctica	(2)	
	Argentina	(7 (1)	
	Armenia	(2)	
	Aruba	a	

Create Country

Add Country	×
Country Information	
Name *	
Save	e
Countries Add/Edit Field description	

Name Here write down the name of country

How to create country

5.10.5 Currencies

🕂 Create	Lupdate Currencies S Delete]		
	Name	Code	Rate	Action
	Albanian Lek	ALL	122.780	6
	Algerian Dinar	DZD	109.395	
	Aluminium Ounces	XAL	0.001	6
	Argentine Peso	ARS	14.919	6
	Aruba Florin	AWG	1.790	6
	Australian Dollar	AUD	1.309	6
	Bahamian Dollar	BSD	1.000	C7 (1)
	Bahraini Dinar	BHD	0.377	
	Bangladesh Taka	BDT	78.170	6
	Barbados Dollar	BBD	2.000	

Create Currency

Add Currency	×
Currency List	
Name *	
Code *	
Rate *	

Currencies Add/Edit Field description

Name	Name of currency
Code	Code of currency
Rate	Rate of currency

Save

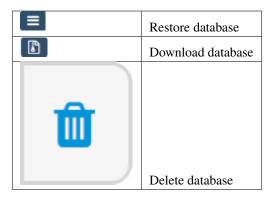
Close

How to create currency

5.10.6 Database Restore

Database				
	Date	Name	File Name	Action
	2016-07-26 13:31:31	Backup-26-07-2016	astpp_20160726130719.sql.gz	
« «	Page 1 of 1 > >> G	1 - 1 of 1 Records 10 ¥ 1 - 1 of 1 Records		

Action Column In Grid:



Create Database Backup

Database Backup	•	×
Database Infor	mation	
Name *		
File Name *	astpp_testing_20160919070954.sql.gz	
	Save Close	

Backup Database Add Field description

Name	Here specify the name of database
File Name	Here describe file name of database and path of database

How to take database backup

Import Database

.....

Import Database		×
– Database Inform	ation	
Name *:		
Select File:	Select File	
	(Allowed file format is : .csv, .tar.gz, .sql) Upload	

Import Database Field description

Name	Here specify the name of database.
Select File	Select your database file from your system.

5.10.7 Settings

Global-Settings

Global	Global				Global
Email	- Global -				
Callingcard	Company Website *	http://www.inextrix.com	Version *	3.0	
Opensips				5.0	
Paypal	Company Name *	iNextrix Technologies. Pvt. Ltd.	DID Global Translation *		
Signup	Call Debug *	Enable 👻	Playback Audio Notification *	Disable 👻	
	Decimal Points *	4	Outbound Fax *	Enable •	
	Max Free Length *	100	Inboud Fax *	Enable •	
	Call Max Length *	1440000	Refill Coupon Length *	6	
	Base Currency *	U.S. Dollar 👻	Minimum Fund Transfer *	0	
	Default Timezone *	(GMT+05:30) Chennai, Kolk 🕶	Balance Announcement *	Disable -	
	Default Country *	Albanian Lek 👻	Minutes Announcement *	Disable 🔻	
			Save		

Global - Settings Field Description

Company Website	Company Website
Company Name	The name of your company. Used in emails.
Call Debug	Enable debugging output? 0=no 1=yes.
Decimal Points	How many decimal points do we bill to?
Max Free Length	What is the maximum length (in minutes) of calls that are at no charge?
Call Max Length	What is the maximum length (in ms) of a LCR call?
Base Currency	Base Currency of System.
Default Timezone	System timezone.
Default Country	Default country.
Version	ASTPP Version.
Did Global Translation	Global number translation for DID.
Playback Audio Notification	Global audio notification.
Outbound Fax	Set enable to allow outbound fax in call.
Inbound Fax	Set enable to allow inbound fax in call.
Refill Coupon Length	Set refill coupon generation lenght.
Minimum Fund Transfer	Set minimum amount for fund transfer.
Balance Announcement	To enable balance playback in call.
Minutes Announcement	To enable minute playback in call.
Voicemail Number	Voicemail listen number.

Email-Settings

Global	Email				Global / Email
Email	- Email -				
Callingcard Opensips	Email Notifications *	Enable 👻	SMTP Port *	465	
Paypal	SMTP *	Enable •	SMTP Pass *		
Signup	SWIT HOSE -	ssl://smtp.gmail.com	5		
			Save		

Email - Settings Field Description

Email	Send out email? 0=no 1=yes.	
SMTP Send out email using SMTP? 0=no		
SMTP host	Host name for SMTP connection.	
SMTP port	Port name for SMTP connection.	
SMTP user	User name for SMTP connection.	
SMTP pass	Password name for SMTP connection.	

Calling Cards

Global	Callingcard				Global / Callingcard
Email	Callingcard				
Callingcard	Starting Digit *	0	Card Input Timeout *	15000	
Opensips	Card Length *	10	Dial Input Timeout *	15000	
Paypal					
Signup	Pin Length *	6	General Input Timeout *	15000	
	Card Retries *	3	Welcome File *	astpp-welcome.wav	
	Pin retries *	3	ANI Authentication *	Disable	
	Rate Announcement *	Enable 👻	IVR Count *	2	
	Timelimit Announce *	Enable 🝷	Balance Announcement *	Enable	
	Pin Input Timeout *	15000	CC Access Numbers *	2222,3333,6666	
			Save		

Callingcard - Settings Field Description

The digit that all calling cards must start with. 0=disabled.		
Number of digits in calling cards and cc codes.		
For those calling cards that are using pins this is the number of digits it will have.		
How many retries do we allow for calling card numbers?		
How many retries do we allow for pins?		
Do we want the calling cards script to announce the rate on calls?		
Do we want the calling cards script to announce the time-limit on calls?		
How long do we wait when entering the calling card pin? Specified in MS.		
How long do we wait when entering the calling card number? Specified in MS.		
How long do we wait when entering the destination number in calling cards? Specified		
in MS.		
How long do we wait for input in general menus? Specified in MS.		
What do we play for a welcome file?		
Calling card ANI authentication. 0 for disable and 1 for enable.		
IVR playback loop count.		
Do we want the calling cards script to announce the balance of account?		
Add calling card access numbers with comma separation. Ex : 12345678,3581629		

Opensips-Settings

Global	Opensips				Global / Opensips
Email	- Opensips				
Callingcard	Opensips DB Engine *	MySQL	Opensips DB Host *	localhost	
Opensips	Opensips *	Disable -	Opensips DB Pass *	testing	
Paypal		Disable		testing	
Signup	Opensips DB Name *	opensips_25	Opensips Domain *	127.0.0.1	
	Opensips DB User *	root			
			Save		
Signup	Opensips DB Name * Opensips DB User *		Opensips Domain *	127.0.0.1	

Opensips - Settings Field Description

Opensips dbengine	For now this must be MySQL.
Opensips	Use Opensips? 1 for Enable or 0 for Disable.
Opensips dbname	Opensips Database Name.
Opensips dbuser	Opensips Database User.
Opensips dbhost	Opensips Database Host.
Opensips dbpass	Opensips Database Password.
Opensips domain	Opensips Domain.

Paypal-Settings

Global	Paypal					Global /	Paypal
Email	Paypal						_
Callingcard	Paypal *	Enable 👻	Paypal Sandbox Id *	your@paypal.com			
Opensips	Paypal Url *	https://www.paypal.com/cgi-b	Paypal Mode *	Sandbox	•		
Paypal	Paypal Sandbox Url *		Paypal Fee *				
Signup		https://www.sandbox.paypal.c		Enable	•		
	Paypal Id *	your@paypal.com	Paypal Tax *	0			
			Save				

Paypal - Settings Field Description

Paypal status	0=enable paypal module 1=disable paypal module.
Paypal url	Paypal live url.
Paypal sandbox url	Paypal Sandbox url for testing.
Paypal id	Paypal Live account id.
Paypal sandbox id	Paypal sandbox accountid for testing.
Paypal mode	0=paypal Live mode 1= paypal Sandbox mode.
Paypal fee	0=paypal mc fee paid by admin 1= paypal mc fee paid by customer.
Paypal tax	Paypal tax rate (in percentage) apply to recharge amount.

Signup-Settings

Global	Signup					Global /	Signup
Email	Signup						_
Callingcard	Default Rategroup *	test	•	Create SIP Device *	Enable	•	
Opensips							
Paypal	Enable Signup *	Enable	•	Default Balance *	10		
Signup	2						_
				Save			

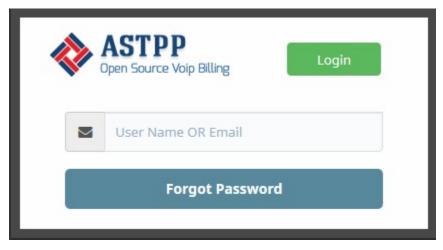
Signup- Settings Field Description

Default Rategroup	Set default rategroup for new signup account.
Enable Signup From	here we can set enable/disable signup process.
Create SIP Device	If you select Enable then it create automatic sip device for new account.
Default Balance	From here we can set default balance.

5.11 Forgot Password

From here you can reset your password.

You can enter your register email address or account number after that you will get email to reset your password.



5.12 Signup Now!

From this page you can signup as customer into astpp.

By fill-up all complete detail you will get success message and activation mail in your email account.

First Name *		Last Name	
Company		Telephone	
Email *		Country	India
Timezone	(GMT+05:30) Chennai, Kolkata, ML 💌	Currency	U.S. Dollar
Address		Captcha *	81541
			Enter above text

CHAPTER 6

FAQ

Related Page

6.1 Questions

Two Types Of Questions:

1.General Questions

2. Technical Questions

General Questions

- 1. Is this solution completely open source? Yeah.
- 2. What kind of license does it have? GNU AGPL3 More info : https://www.gnu.org/licenses/agpl-3.0.en.html
- 3. Is there any limitation of using ASTPP? Nope. There is no limitation of using ASTPP. You can use it anywhere.
- 4. Where ASTPP can be used? It can be used in small scale as well as large scale carrier setup.
- 5. What do i need to setup ASTPP on my system? You just need to have system with above defined OS and then you will be able to setup ASTPP on that.
- 6. Which OS are preferable for ASTPP? It is strongly recommended that ASTPP be deployed on the Linux distribution CentOS version 7.x or Debian version 8.x
- 7. What is the minimum hardware requirement? CentOS 7.X OR Debian 8.x, 4GB RAM (8 or 16gb is highly recommended for better performance), 40gb Hard Drive, We recommend to use high configuration hardware to get better performance.
- 8. Does ASTPP work on Virtual servers? Yeah, It can work on Virtual servers.
- 9. How many concurrent calls ASTPP can handle? That is purely depends on hardware which you will use. More Hardware resource can give more concurrent calls.

- 10. How can I contribute code or donate money to support project? You can simply send your code to us for review and we will include it in open source version. You can donate us at paypal account billing@inextrix.com
- 11. **Do you offer support?** Yeah we do offer installation, configuration, on demand support, recurring support & custom development. You can check our pricing from http://astpp.inextrix.com/cart.php. For custom development, you can drop an email to us at sales@inextrix.com OR use http://astpp.inextrix.com/contact. php

Technical Questions

- 1. What databases are supported in ASTPP? It supports only MySQL (PostgreSQL support will be added in future release).
- 2. What payment gateways are supported in ASTPP? Paypal only for now. In future we have plan to add authorize.net payment gateway.
- 3. Does ASTPP support Multi-language? No
- 4. Does ASTPP current version support callshop? No. It will be included in future releases. To get more information you can contact us at sales@inextrix.com.
- 5. How can I update my source from to keep it update to date? ASTPP provides update.sh script with its source just run that script to update your source.
- 6. When I go to login page, rather WEBUI I get long list of php contents. Enable short_open_tag in php.ini and then restart apache.
- 7. Why I am not able to register extensions after installation? Make sure you have configured your IP in Sip Profile and your registration request is reaching to server.
- 8. How to verify if ASTPP and FreeSWITCH communicating properly? Default sip profile must be loaded in FreeSWITCH
- 9. While login I am getting "Unable to connect to your database server using the provided settings" error. Please check your database credentials. ASTPP uses /var/lib/astpp/astpp-config.conf file for database connection.
- 10. How can I do IP Authentication for my customers? Configure your customer IP under Customers -> IP Settings
- 11. **Does CDRs report will show all data ?** No, CDRs report will only record of current day. If you want to see record of previous days record then you need to search.

CHAPTER 7

Report a Bug

Please feel free to report in our bug tracker below in case of any issues you find:

https://github.com/iNextrix/ASTPP/issues

Or post your questions on:-

https://groups.google.com/forum/#!forum/astpp

Note: To avoid duplicate bug posts, we would suggest you to refer existing bugs list and google groups first.

CHAPTER 8

Get Support

We have provided installation and operation instructions with online help to assist you to install and manage your own ASTPP Platform. However from time to time you may need some clarification or support. There are a number of options available described below.

Paid Support : Paid support is available from ASTPP.

managed Installation : Stable and secure installations can be performed by us with training and optionally, ongoing support.