

PHPIPAM – Tool for managing number resources

Feature:

- IPv4/IPv6 IP address management
- Section / Subnet management
- Automatic free space display for subnets
- Visual subnet display
- Automatic subnet scanning / IP status checks
- Power DNS integration
- NAT support
- RACK management

- Domain authentication (AD, LDAP, Radius)
- Per-group section/subnet permissions
- Device / device types management
- RIPE subnets import
- XLS / CVS subnets import
- IP request module
- REST API
- Locations module

- VLAN management
- VRF management
- IPv4 / IPv6 calculator
- IP database search
- E-mail notifications
- Custom fields support
- Translations
- Changelogs

Requirements:

1. Apache2 webserver with php support or Nginx with php-fpm
2. Mysql server (5.1+)
3. PHP:
 - version 5.3 supported to phpipam version 1.3.1
 - version 5.4
 - version 7.2 and higher supported from phpipam release 1.3.2
4. PHP modules:
 - pdo, pdo_mysql : Adds support for mysql connections
 - session : Adds persistent session support
 - sockets : Adds sockets support
 - openssl : Adds openSSL support
 - gmp : Adds support for dev-libs/gmp (GNU MP library) -> to calculate IPv6 networks
 - ldap : Adds LDAP support (Lightweight Directory Access Protocol – for AD also)

- crypt : Add support for password encryption
 - SimpleXML: Support for SimpleXML (optional, for RIPE queries and if required for API)
 - json: Enable JSON support
 - gettext: Enables translation
 - filter : Adds filtering support
 - pcntl : Add support for process creation functions (optional, required for scanning)
 - cli : Enable CLI (optional, required for scanning and status checks)
 - mbstring : Enable mbstring support
5. php PEAR support

Usually most php modules all are built into default php installation. If some required modules are missing phpipam will fail with warning and notify you about them.

You can check which php modules are enabled by issuing `php -m` in command line.

Installation:

<https://phpipam.net/documents/installation/>

Downloading phpipam:

You can download and install phpipam from official [Sourceforge](#) repository and extract it to your webserver directory.

```
tar -xvf phpipam-1.4.tar /var/www/
```

Or Simply use GitHub:

```
[root@ipam /]# GIT clone --recursive https://github.com/phpipam/phpipam.git /var/www/phpipam
[root@ipam /]# cd /var/www/phpipam
[root@ipam /var/www/phpipam]# git checkout -b 1.4 origin/1.4
```

Initial configuration:

Before you start installing database files, you need to enter database details, that you will use for phpipam connecting to database. First copy `config.dist.php` to `config.php` and enter required details.

For automatic installation phpipam will configure database with settings you enter in `config.php` file, for manual installation you will have to do it yourself.

```
$db['host'] = "localhost";  
$db['user'] = "phpipam";  
$db['pass'] = "phpipamadmin";  
$db['name'] = "phpipam";
```

also, if you extracted phpipam directory in any other directory than web server root folder, you need to set that as well (BASE directive) in config.php:

```
define('BASE', "/");
```

For example, if you will have phpipam installed in `http://myserver/phpipam/` directory than set BASE as `/phpipam/`.

Database installation:

You can install required database scheme in 3 ways:

a) Automatic database installation

On phpipam installation page select automatic installation, enter mysql details and click install. For mysql user/pass enter details for user, that has permissions to create new databases and grant permission (e.g. root).

b) mysql import

You can manually import sql SCHEMA file via mysql's cli, but first you need to create database and grant user permission (replace user/pass with one you set in config.php):

```
[root@ipam ~]# mysql -u root -p  
Enter password:  
mysql> create database phpipam;  
Query OK, 1 row affected (0.00 sec)  
mysql> GRANT ALL on phpipam.* to phpipam@localhost identified by 'phpipamadmin';  
Query OK, 0 rows affected (0.00 sec)  
mysql> exit  
Bye
```

Once this is in place, you can import SCHEMA.sql file with following command:

```
mysql -u root -p phpipam < db/SCHEMA.sql
```

c) manual query import

Third method is a copy/paste method of SQL queries. First create database and grant user permission (take a look at step b), then copy contents of SCHEMA.sql file into mysql and you should be good to go.

This method is useful in case you have some problems with installation, as you can see where it goes wrong!

Database backups (optional):

It is recommended that you make daily backups of your database files via cron. For daily backups use following cronjob:

```
# Backup IP address table, remove backups older than 10 days
@daily /usr/bin/mysqldump -u ipv6 -pipv6admin phpipam > <ipam_dir>/db/bkp/
phpipam_bkp_$(date +"%Y\%m\%d").db
@daily /usr/bin/find <ipam_dir>/db/bkp/ -ctime +10 -exec rm {} \;
```

Login:

phpipam IP address management

Login

Please login

Username

Password

Login

You have logged out

phpIPAM IP address management [v1.4] | In case of problems please contact Sysadmin | [Donate](#)

Home:

The screenshot shows the phpIPAM IP address management dashboard. At the top, the title "phpipam IP address management" is displayed. Below the title, there is a search bar and a user profile section showing "Hi, phpIPAM Admin" and "Logged in as Administrator". The dashboard includes a navigation menu with "Dashboard" and "Subnets" options. A "Statistics" widget on the left lists various metrics such as "Number of Sections" (1), "Number of Subnets" (0), "Number of VLANs" (2), "Number of VRFs" (0), "Number of IPv4 addresses" (0), "Number of IPv6 addresses" (0), "Number of Devices" (0), "Number of Locations" (0), "Number of Racks" (0), and "Number of users" (1). A "Favourite subnets" widget in the center shows "No favourite subnets selected" and a note that subnets can be added to favourites by clicking a star icon. At the bottom, a "Last 5 change log entries" table shows two entries: "Section / delete success" and "Subnet / delete success", both performed by "phpIPAM Admin" on "2019-12-29 07:28:13".

User	Type	Object	Date	Change
phpIPAM Admin	Section / delete success	Deleted	2019-12-29 07:28:13	View
phpIPAM Admin	Subnet / delete success	Deleted	2019-12-29 07:28:13	View

Adding Your Subnet:

This screenshot shows the same phpIPAM dashboard as above, but with the "Tools" menu open. The menu lists various management options: "Available IPAM", "Show all tools", "Subnets", "Customers", "Favourite networks", "Subnets", "VLAN", "NAT", "Scanned networks", "Subnet masks", "Inactive Hosts", "Duplicates", "Threshold", "Devices", "Devices", "Racks", and "Circuits". The "Subnets" option is highlighted. The rest of the dashboard content, including the statistics and change log, remains the same as in the previous image.

phpipam IP address management

Search string

Hi, phpIPAM Admin
Logged in as: Administrator
[Logout](#)

/ Tools / Subnets

Tools
Subnets

Administration

All sections

SUBNETS

Customers

Favourite networks

Subnets

VLAN

NAT

Scanned networks

Subnet masks

Inactive Hosts

Duplicates

Threshold

IPv6

Available subnets in section IPv6: [Section for IPv6 addresses]

+ Add subnet
Q Find subnet

Subnet	Description	VLAN	Master Subnet	Device	Customer

phpipam IP address management

Search string

Hi, phpIPAM Admin
Logged in as: Administrator
[Logout](#)

/ Tools / Subnets

Subnets
IPv6

Administration

Available subnets

+ Add subnet

Add subnet

Subnet Enter subnet in CIDR format

Description Enter subnet description

VLAN Select VLAN

Device Select device where subnet is located

Nameservers Select nameserver set

Master Subnet Enter master subnet if you want to nest it under existing subnet, or select root to create root subnet!

Customer Assign subnet to customer

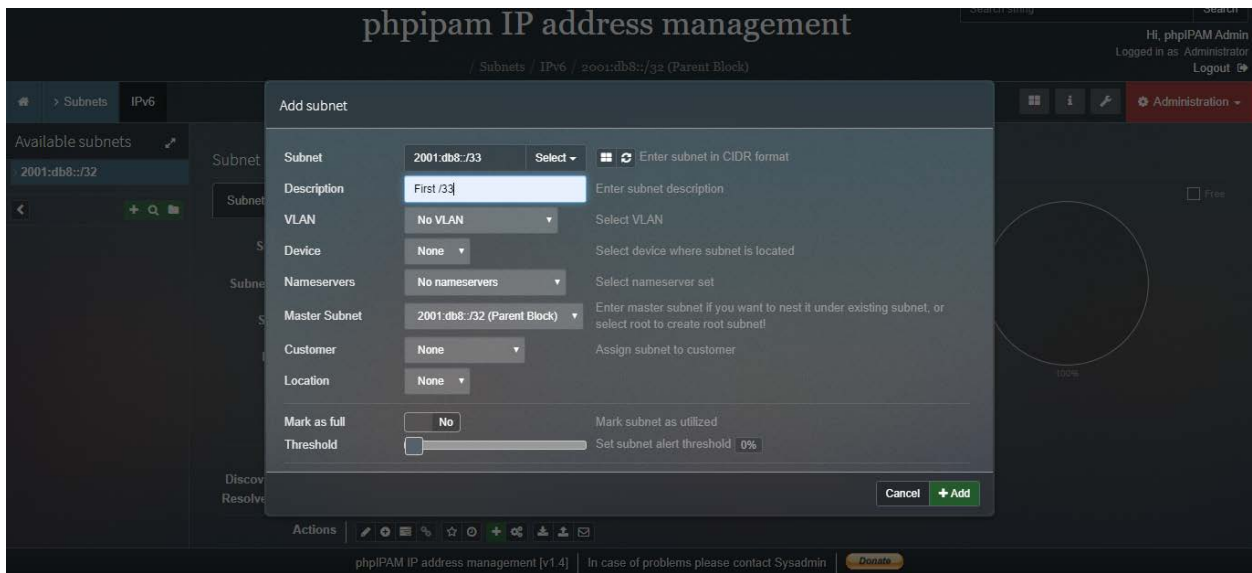
Location

Mark as full No Mark subnet as utilized

Threshold Set subnet alert threshold 0%



Adding Nested Subnet:



phpipam IP address management

Search string Search

Hi, phpIPAM Admin
Logged in as Administrator
Logout

/ Subnets / IPv6

Subnets IPv6 Administration

Available subnets

2001.db8:/32

+ Add subnet Find subnet

Subnet	Description	VLAN	Master Subnet	Device	Customer
2001.db8:/32	Parent Block	Default	/	/	/
2001.db8:/33	First /33	Default	2001.db8:/32	/	/

Showing 1 to 2 of 2 rows

phpIPAM IP address management [v1.4] | In case of problems please contact Sysadmin | [Donate](#)

phpipam IP address management

Search string Search

Hi, phpIPAM Admin
Logged in as Administrator
Logout

/ Subnets / IPv6

Subnets IPv6 Administration

Available subnets

2001.db8:/32

+ Add subnet Find subnet

Subnet	Description	VLAN	Master Subnet	Device	Customer
2001.db8:/32	Parent Block	Default	/	/	/
2001.db8:/33	First /33	Default	2001.db8:/32	/	/
2001.db8.8000:/33	2nd /33	Default	2001.db8:/32	/	/

Showing 1 to 3 of 3 rows

phpIPAM IP address management [v1.4] | In case of problems please contact Sysadmin | [Donate](#)

Available subnets

2001.db8:/32

+ Add subnet Find subnet

Search

Subnet	Description	VLAN	Master Subnet	Device	Customer	
2001.db8:/32	Parent Block	Default	/	/	/	
2001.db8:/33	First /33	Default	2001.db8:/32	/	/	
2001.db8:/36	Infra + Customer	Default	2001.db8:/33	/	/	
2001.db8:/40	Backbone Infra (P2P, Loopback)	Default	2001.db8:/36	/	/	
2001.db8:/48	Loopback	Default	2001.db8:/40	/	/	
2001.db8.1:/48	Point to Point	Default	2001.db8:/40	/	/	
2001.db8.2:/48	Future Infrastructure	Default	2001.db8:/40	/	/	
2001.db8.100:/40	Enterprise Customer Region 1	Default	2001.db8:/36	/	/	
2001.db8.100:/48	Customer WAN Links	Default	2001.db8.100:/40	/	/	
2001.db8.101:/48 <small>Full</small>	Customer 1-1	Default	2001.db8.100:/40	/	/	
2001.db8.8000:/33	2nd /33	Default	2001.db8:/32	/	/	

Showing 1 to 11 of 11 rows

phpIPAM IP address management [v1.4] | In case of problems please contact Sysadmin [Donate](#)