GestióIP IPAM

v3.5

IP address management software

Installation Guide v1.9

www.gestioip.net

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Table of Contents

1	Introduction	.3
2	Requirements	.3
3	System preparation	.3
	3.1 Debian/Ubuntu	.3
	3.2 Suse	.5
	3.3 Fedora/Redhat/Centos	.6
4	Installation	.9
	4.1 Script based installation	.9
	4.2 Web based database configuration	10

1 Introduction

GestióIP comes with a script based installation assistant which resolves GestióIP's dependencies and installs the GestióIP software.

The installation consists of two parts. The script based part to install the required Perl modules and to configure the Apache web server and a web-based part to create and configure the Mysql database.

Please be aware that there is also a docker-compose deployment available which, specially for testing purposes, may be an alternative to the installation on a server. See https://github.com/muebel/gestioip-docker-compose for more information.

2 Requirements

SO: Linux, Unix-like. Setup supports the following actual Linux distributions: Debian, Ubuntu, Fedora, Redhat, CentOS, SuSE

Software: Apache2 with mod_perl, Mysql or MariaDB, Perl, some Perl modules, SNMP standard MIBs

Hardware (min): DualCore CPU 2GHz, RAM: 2GB (recommended: 4GB)

During the installation the server must be connected to the Internet to download the required packages with the distribution specific packet manager (apt, yum, zypper).

3 System preparation

See the distribution specific information.

3.1 Debian/Ubuntu

The installation on Debian/Ubuntu consists in the following steps:

1) Enable repositories (Linux distribution specific).

2) Execute "setup_gestioip.sh" (see 4.1).

- 3) Configure the MySQL database.
- 4) Execute the web base installation part (see 4.2).

Enable the required repositories (Debian only)

This is only required for Debian. For Ubuntu, the required repositories "universe" and "multiverse" will be enabled automatically by the setup during the installation by executing the commands "add-apt-repository universe", "add-apt-repository multiverse" and "apt-get update".

Enable the "non-free" repository for Debian before executing setup_gestioip.sh:

Open the file /etc/apt/sources.list with an editor and add "contrib non-free" at the end of the lines starting with "deb".

Debian 9: deb http://http.debian.net/debian/ stretch main contrib non-free Debian 10: deb http://http.debian.net/debian/ buster main contrib non-free

Debian 11: deb http://http.debian.net/debian/ bullseye main contrib non-free

Then execute the command

sudo apt-get update

to take the changes affect.

Configure MySQL/MariaDB after running setup_gestioip.sh

Execute the following steps before continuing with the web based installation part of GestióIP

Access from a terminal of the GestióIP server to the MySQL database:

\$ sudo mysql -u root

And execute the following statements:

```
mysql> use mysql;
mysql> select Host, User, plugin from user where user="root";
+-----+
| Host | User | plugin |
+----+
| localhost | root | mysql_native_password |
+----++
```

If root's plugin is set to something other than "mysql_native_password" change it with the following mysql statement:

Mysql

```
mysql> ALTER USER 'root'@'localhost' IDENTIFIED WITH mysql_native_password BY
'password';
mysql> FLUSH PRIVILEGES;
```

MariaDB

```
MariaDB [mysql]> ALTER USER 'root'@'localhost' IDENTIFIED WITH
mysql_native_password;
MariaDB [mysql]> ALTER USER 'root'@'localhost' IDENTIFIED BY 'password';
MariaDB [mysql]> FLUSH PRIVILEGES;
```

Then apply some basic security setting to the database by executing the script "mysql_secure_installation":

\$ sudo mysql_secure_installation

You can answer all following questions with "Y".

Try to access to the database to check if the changes where successful:

\$ mysql -u root -p

3.2 Suse

The installation on Suse Linux consists in the following steps:

- 1) Execute "setup_gestioip.sh" (see 4.1)
- 2) Enable the required Apache modules.
- 2) Create a MariaDB root password
- 4) Execute the web base installation part (see 4.2)

Enable the required Apache modules

The setup will install the Apache web server on the server. After the script based part of the installation with the script setup_gestioip.sh, it is necessary to enable the required Apache modules manually.

Open the file /etc/sysconfig/apache2 with an editor and search the line beginning with

APACHE_MODULES="some_modules..."

add the required modules to the line:

APACHE_MODULES="*some_modules*... request rewrite session_crypto session_cookie auth_form headers"

Save and close the file and restart the Apache web server.

```
$ sudo service apache2 restart
```

Check also the local firewall settings of the server. You may need to allow http traffic with a command like:

\$ sudo firewall-cmd --zone=public --add-port=80/tcp

Create a MariaDB root password

If you did not already set a MariaDB root password execute the following steps before continuing with the web based installation part of GestióIP:

\$ sudo service mariabd start
or
\$ sudo service mysql start
\$ sudo mysql secure installation

. . _ _

Set a root password and answer all following questions with "Y".

3.3 Fedora/Redhat/Centos

The installation requires that the epel-release (Extra Packages for Enterprise Linux repository) is enabled. The epel-release will be automatically enabled during the setup during the installation by executing the commands "yum install epel-release" and "yum update".

- 1) Enable optional and extra RPM repositories (Redhat <=7 only) and/or
- 2) Execute "setup_gestioip.sh" (see 4.1).
- 3) Create a MariaDB root password.
- 4) Execute the web base installation part (see 4.2).

Check also the local firewall settings of the server. You may need to allow http traffic with a command like:

\$ sudo firewall-cmd --zone=public --add-port=80/tcp

Create a MariaDB root password

If you did not already set a MariaDB root password execute the following steps before continuing with the web based installation part of GestióIP

\$ sudo systemctl start mariadb.service \$ sudo mysql_secure_installation

Set a root password and answer all following questions with "Y".

Enable "optional" and "extra" RPM repository for Redhat <=7 and epel-release

Some required packages are part of the "optional" and "extra" channels. Activate this two channels before you start the installation.

Redhat 6

Check if the optional channel is activated:

```
$ sudo yum repolist all
repo id repo name status
rhel-6-server Red Hat Enterprise Linux 6Server - enabled
rhel-6-server-beta Red Hat Enterprise Linux 6Server Be enabled
rhel-6-server-optional-rpms rhel-6-server-supplementary Red Hat Enterprise Linux 6Server Su disabled
```

```
$ sudo subscription-manager repos --enable=rhel-6-server-optional-rpms
$ sudo yum install -y yum-utils
$ sudo yum-config-manager --enable rhel-6-server-optional-rpms
$ sudo yum update
```

Redhat 7

```
$ sudo subscription-manager repos --enable rhel-7-server-extras-rpms
$ sudo subscription-manager repos --enable rhel-7-server-optional-rpms
$ sudo yum update
```

Redhat 8

No action required. All packages should be available in the base or EPEL repository.

Redhat 9

Install the EPEL release.

```
$ sudo subscription-manager repos --enable codeready-builder-for-rhel-9-$
(arch)-rpms
$ sudo dnf install https://dl.fedoraproject.org/pub/epel/epel-release-
latest-9.noarch.rpm
```

4 Installation

The installation of GestióIP consists in a script based installation assistant to install the software and a web based part to configure the Mysql database.

4.1 Script based installation

Download GestióIP

* Download GestióIP 3.5 IPAM from www.gestioip.net

Install GestióIP

* Open a shell and untar file gestioip_3.5.tar.gz:

\$ tar vzxf gestioip_3.5.tar.gz

* Change to the new directory gestioip_3.5

\$ cd gestioip_3.5

* Execute the script based installation assistant like root

\$ sudo ./setup_gestioip.sh

and follow the instructions.

The setup will install GestióIP with the default values, which should be good if you do not have special requirement. Nevertheless you have the possibility to run the script with the "-i" option to use the interactive mode (sudo ./setup_gestioip.sh -i).

If you wish to run the script without any interactivity check the configuration file ./conf/setup.conf

You can stop the script at any point of time by typing CTRL C and execute it later again again.

Setup will write a log file called *date_setup.log* which is stored in the same folder as the script itself.

Restart the Apache web server when the setup script has finished (remember to enable the required Apache modules before):

- \$ sudo systemctl restart apache2 (Debian/Ubuntu)
- \$ sudo service httpd restart (Fedora/Redhat/CentOS)
- \$ sudo service apache2 restart (Suse)

And access to the web-based database configuration by pointing your browser to <u>http://server/gestioip/install</u>.

4.2 Web based database configuration

Open a browser and access to "http://server/gestioip/install". Replace "server" with the IP address or the DNS name of the server with the GestióIP installation. Access with the user and the password which you created during the setup (default user: gipadmin):

😣 🖻 🗊 Gestiól PLogi	n Page - Mozilla Firefox			
GestiólP Login Page	× +			
$\leftarrow \rightarrow$ C' \textcircled{a}	Q localhost/gestioip/	install	110%	≙ III\ ⊡ ©* ≡
		GestiólP		
		acstion		
		Sign In		
		Username		
		Password		
		login		
ig. 1: Accessin	g to web based d	atabase configuration		

After confirming the credentials by clicking "OK", GestióIP's installation "Welcome" site will be displayed. Click "next" to proceed with database configuration.

GestióIP	Installation				
Welcome	Welcome to the installation of GestióIP				
Database creation Database configuration Completion of installation	 This assistant helps to complete the installation of GestióIP in three steps: Database creation Database configuration Personalization of GestióIP and completion of installation 				
ES DE EN	next				
Fig. 2: Installation "Welcome" site					

Introduce the database configuration parameters and click "send".

Note that if you running GestióIP and it's Mysql database on the same host, introduce "127.0.0.1" for both, "Web server address" and "Mysql server address".

GestióIP	In	stallation	
	Database creation		
Database creation	Web server address:	127.0.0.1	If the Web and the Mysql server are running on the same host enter here the loopback address (127.0.0.1). If no, enter here the IP or the DNS name of the Web server
Completion of installation	Mysql server address:	127.0.0.1	If the Web- and the Mysql server are running on the same host enter here the loopback address (127.0.0.1). If no, enter here the IP or the DNS name of the Mysql server
	Mysql port:	3306	
	Mysql super user:	root	
	Mysql super user password:	•••••	"Mysql super user" and "Mysql super user Password" are only used during the installation and will not be stored
	SID:	gestioip	
	Mysql user:	gestioip	
	Mysql user password:		
	retype Mysql user password:		
	send		
ig. 3: Data	abase param	eter config	guration
-	-		-

Next page shows if the database was successfully created. Click "next page" to proceed.

GestióIP	Installation				
Welcome	Database creation				
Database creation	connecting to the database OK				
	creating the new database gestioipOK				
	GRANT ALL ON gestioip.* to gestioip@127.0.0.1 IDENTIFIED BY "********"OK				
	creating tables in the new database $\mathbf{O}\mathbf{K}$				
	The Mysql database was successfully created				
	next page				
Fig. 4: Database creation confirmation screen					

Configure Sites and Categories. If your IT-Infrastructur is distributed over various locations introduce the locations into the text box "Sites". This can be e.g. various campuses, data centers or buildings. You need to introduce at least one site. The network categories are thought to classify the

networks. GestióIP proposes here some categories like "prod" for the production environment, "pre" for pre-production or "dev" for networks of the development environment. Modify the network categories to adapt them to your requirements. Host category are intended to classify hosts. Add as many additional host categories as you need.

Note:	You can	change all	this y	values	later	easily	via	frontend	web.
1.0.00	100000000000	• · · · · · · · · · · · · · · · · · · ·				- constructions			

GestióIP	Installation					
Welcome	Configuration of categories and sites					
Database creation Database configuration	comma separated list (one entry min., 10 characters per entry max.) Example: Lon1,Lon2,NY,Sydney					
Completion of installation	Sites:					
	Network categories:					
	GestióIP comes with the following default host categories: L2 device, L3 device, FW, server, DB, workst, printer, wifi, VoIP, other Add additional host categories in the following field (optional)					
	Additional host categories:					
	next					
Fig. 5: Sites, ne	ig. 5: Sites, network categories and host categories configuration					

Next page shows if the sites and categories where successfully created. Click "next page" to proceed.

GestióIP	Installation			
Welcome	Configuration of categories and sites			
Database creation Database	insert site OK			
configuration Completion of	insert not category OK			
	next page			
Fig. 6: Site and category confirmation screen				

The following page informs if the installation has completed successfully.

GestióIP	Installation				
Welcome	Installation of the database completed successfully!				
Database creation Database configuration	To finish the installation of GestióIP execute the following command to delete installation directory (/var/www/html/gestioip/install/): \$ sudo rm -r /var/www/html/gestioip/install				
Completion of installation	After this you can access to the installation of GestióIP with the URL: http://localhost/gestioip				
	Have fun!				
Fig. 7: Installation completed screen					

Delete the directory "install" ([DocumentRoot]/gestioip/install) manually and access to GestióIP by clicking the link http://servername/gestioip.

When you access first time to GestióIP, there will be a page displayed, with gives some hints how to initialize the database with your organizations networks, hosts and VLANs.

network search	networks VLANs import/export - manage - help - 🔂	GestiólP
	networks search new join	IPv6 address plan Subnet Calculator
ALL	site category category orgen show rootnets ontract rootnets show free ranges entries/page 500 reset filter	
	no networks	
	Welcome to GestióIP	
	To initialize the database with your networks you can:	
	import networks from spreadsheet	
	import networks from spreadsheet	
	start the network, host and VLAN discovery	
	discover	
	start the network import via SNMP	
Fig. 8: Initi	ial view of GestióIP's fronted web	