

Enunciado:

Realice una instalación de Zabbix 3.4 en Ubuntu Server 16.04 y configure para que se monitorice a él mismo y para que monitorice a CentOS

- Servicios obligatorios para ser monitorizados: SSH y HTTP
- Documente las referencias que ha utilizado así como los problemas que ha encontrado

1. Lo primero que debemos hacer es conectar las maquinas entre si, para esto utilizaremos la siguiente configuración en Ubuntu y en CentOS teniendo activadas previamente las interfaces de red NAT y Solo anfitrión en ambas.

ubuntu server

```
/etc/network/interfaces
añadir
auto enp0s8
iface enp0s8 inet static
address 192.168.56.105
netmask 255.255.255.0
gateway 192.168.56.1
```

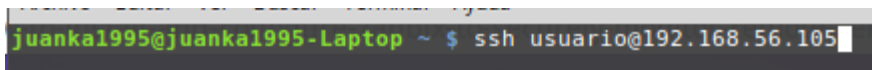
systemctl restart networking -> activar la nueva red

centos

```
/etc/sysconfig/network-scripts/ifcfg-enp0s8
TYPE=Ethernet
BOOTPROTO=none
NAME=enp0s8
DEVICE=enp0s8
ONBOOT=yes
IPADDR=192.168.56.110
NETMASK=255.255.255.0
```

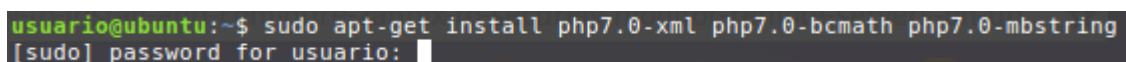
```
ifdown enp0s8
ifup enp0s8 -> activar nueva configuracion
```

2. Nos conectamos por SSH al Ubuntu Server



```
juanka1995@juanka1995-Laptop ~ $ ssh usuario@192.168.56.105
```

3. Instalamos los módulos que Zabbix necesita.



```
usuario@ubuntu:~$ sudo apt-get install php7.0-xml php7.0-bcmath php7.0-mbstring
[sudo] password for usuario:
```

4. Descargamos del repositorio oficial e instalamos Zabbix 3.4

```
usuario@ubuntu:~$ sudo wget http://repo.zabbix.com/zabbix/3.4/ubuntu/pool/main/z/zabbix-release
/zabbix-release_3.4-1+xenial_all.deb
--2017-11-30 16:09:16-- http://repo.zabbix.com/zabbix/3.4/ubuntu/pool/main/z/zabbix-release/za
bbix-release_3.4-1+xenial_all.deb
Resolviendo repo.zabbix.com (repo.zabbix.com)... 162.243.159.138
Conectando con repo.zabbix.com (repo.zabbix.com)[162.243.159.138]:80... conectado.
Petición HTTP enviada, esperando respuesta... 200 OK
Longitud: 3884 (3,8K) [application/x-debian-package]
Grabando a: "zabbix-release_3.4-1+xenial_all.deb"

zabbix-release_3.4-1+xe 100%[=====>] 3,79K --.-KB/s in 0s
2017-11-30 16:09:16 (242 MB/s) - "zabbix-release_3.4-1+xenial_all.deb" guardado [3884/3884]

usuario@ubuntu:~$ dpkg -i zabbix-release_3.4-1+xenial_all.deb
```

```
usuario@ubuntu:~$ sudo apt-get install zabbix-server-mysql zabbix-frontend-php zabbix-agent zab
bix-get zabbix-sender snmp snmpd snmp-mibs-downloader php7.0-bcmath php7.0-xml php7.0-mbstring
```

5. Editamos la zona horaria

```
usuario@ubuntu:~$ cd /etc/zabbix/
usuario@ubuntu:/etc/zabbix$ sudo vi apache.conf
```

```
php_value always_populate_raw_post_data -
php_value date.timezone Europe/Rome
/IfModule>
```

```
usuario@ubuntu:/etc/zabbix$ vi /etc/php/7.0/apache2/php.ini
```

```
; http://php.net/date.timezone
date.timezone = Europe/Rome
```

6. Recargamos el servicio de apache2

```
usuario@ubuntu:/etc/zabbix$ sudo systemctl reload apache2.service
```

7. Creamos la base de datos y el usuario

```
usuario@ubuntu:~$ sudo mysql -u root -p
```

```
usuario@ubuntu:~$ sudo mysql -u root -p
Enter password:
Welcome to the MariaDB monitor.  Commands end with ; or \g.
Your MariaDB connection id is 42
Server version: 10.0.31-MariaDB-0ubuntu0.16.04.2 Ubuntu 16.04

Copyright (c) 2000, 2017, Oracle, MariaDB Corporation Ab and others.

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

MariaDB [(none)]> create database zabbix character set utf8 collate utf8_bin;
Query OK, 1 row affected (0.00 sec)

MariaDB [(none)]> grant all privileges on zabbix.* to zabbix@localhost identified by 'PracticasISE';
Query OK, 0 rows affected (0.01 sec)

MariaDB [(none)]> flush privileges
-> ;
Query OK, 0 rows affected (0.00 sec)

MariaDB [(none)]> quit
Bye
usuario@ubuntu:~$
```

8. Después de esto importamos la base de datos inicial. Primero nos cambiamos a root. Descomprimos la base de datos inicial y la modificamos.

```
root@ubuntu:/usr/share/doc/zabbix-server-mysql# gunzip create.sql.gz
root@ubuntu:/usr/share/doc/zabbix-server-mysql# vi create.sql
root@ubuntu:/usr/share/doc/zabbix-server-mysql# cat create.sql | mysql -u zabbix -p
Enter password:
root@ubuntu:/usr/share/doc/zabbix-server-mysql#
```

```
use zabbix;

CREATE TABLE `users` (
  `userid`
  `alias`
  `name`
  `surname`
)
```

9. Ahora editamos la configuración de la base de datos.

```
root@ubuntu:~# vi /etc/zabbix/zabbix_server.conf

### Option: DBHost
#       Database host name.
#       If set to localhost, socket is used for MySQL.
#       If set to empty string, socket is used for PostgreSQL.
#
# Mandatory: no
# Default:
DBHost=localhost

### Option: DBName
#       Database name.
#       For SQLite3 path to database file must be provided.
#
# Mandatory: yes
# Default:
# DBName=
DBName=zabbix

### Option: DBSchema
#       Schema name. Used for IBM DB2 and PostgreSQL.
#
# Mandatory: no
# Default:
# DBSchema=

### Option: DBUser
#       Database user. Ignored for SQLite.
#
# Mandatory: no
# Default:
# DBUser=
DBUser=zabbix

### Option: DBPassword
#       Database password. Ignored for SQLite.
#       Comment this line if no password is used.
#
# Mandatory: no
# Default:
DBPassword=practicas,ISE

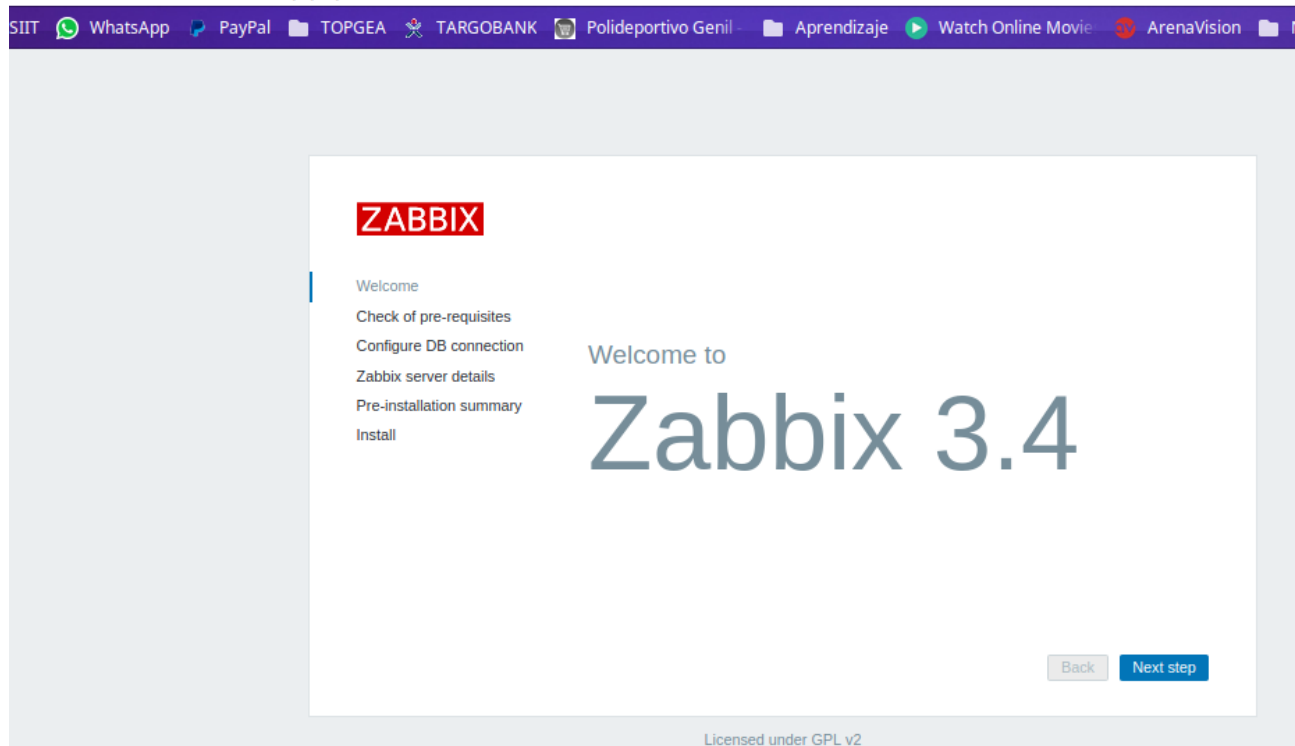
### Option: DBSocket
```

10. Habilitamos el server y el agent

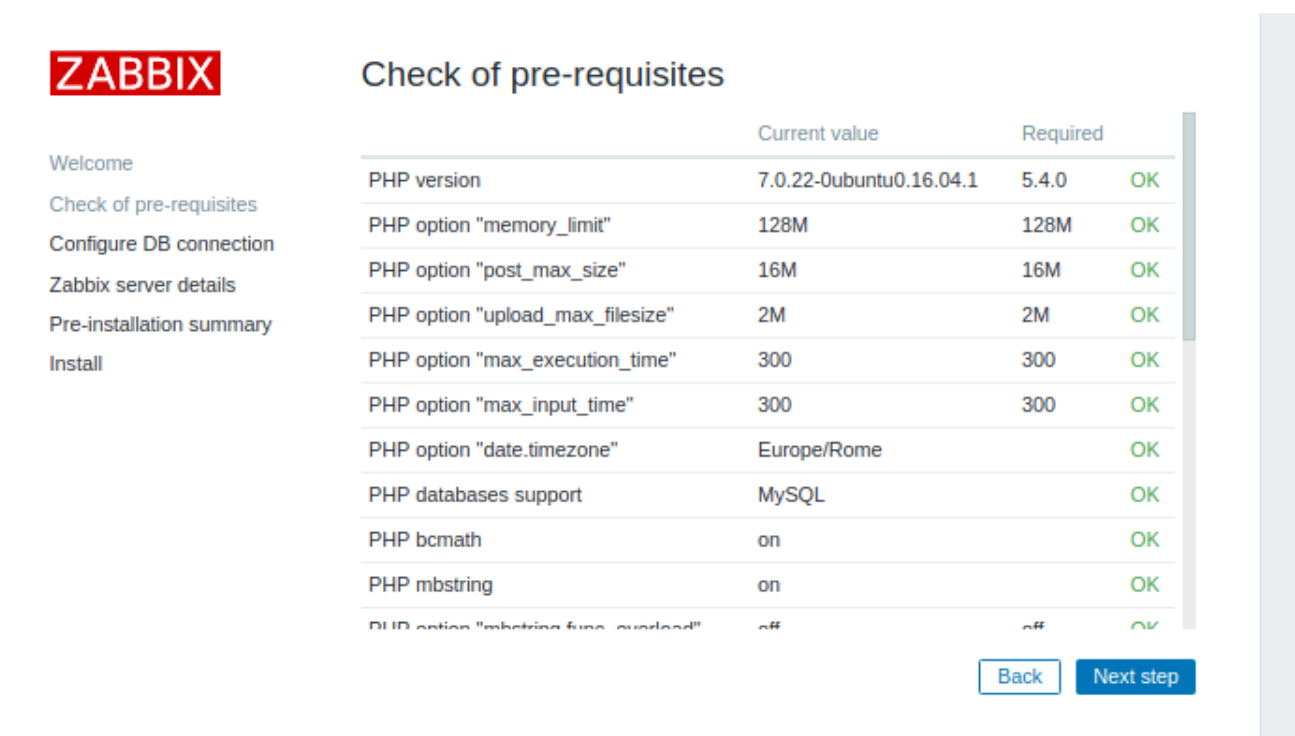
```
root@ubuntu:~# systemctl enable zabbix-server
Synchronizing state of zabbix-server.service with SysV init with /lib/systemd/systemd-sysv-inst
all...
Executing /lib/systemd/systemd-sysv-install enable zabbix-server
root@ubuntu:~# systemctl start zabbix-server
root@ubuntu:~# systemctl enable zabbix-agent
Synchronizing state of zabbix-agent.service with SysV init with /lib/systemd/systemd-sysv-inst
all...
Executing /lib/systemd/systemd-sysv-install enable zabbix-agent
root@ubuntu:~# systemctl start zabbix-agent
root@ubuntu:~#
```

11. Configuramos Zabbix mediante la web

192.168.56.105/zabbix/setup.php



Todo ha de estar OK.





Welcome
Check of pre-requisites
Configure DB connection
Zabbix server details
Pre-installation summary
Install

Configure DB connection

Please create database manually, and set the configuration parameters for connection to this database. Press "Next step" button when done.

Database type

Database host

Database port 0 - use default port

Database name

User

Password

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Welcome
Check of pre-requisites
Configure DB connection
Zabbix server details
Pre-installation summary
Install

Zabbix server details

Please enter the host name or host IP address and port number of the Zabbix server, as well as the name of the installation (optional).

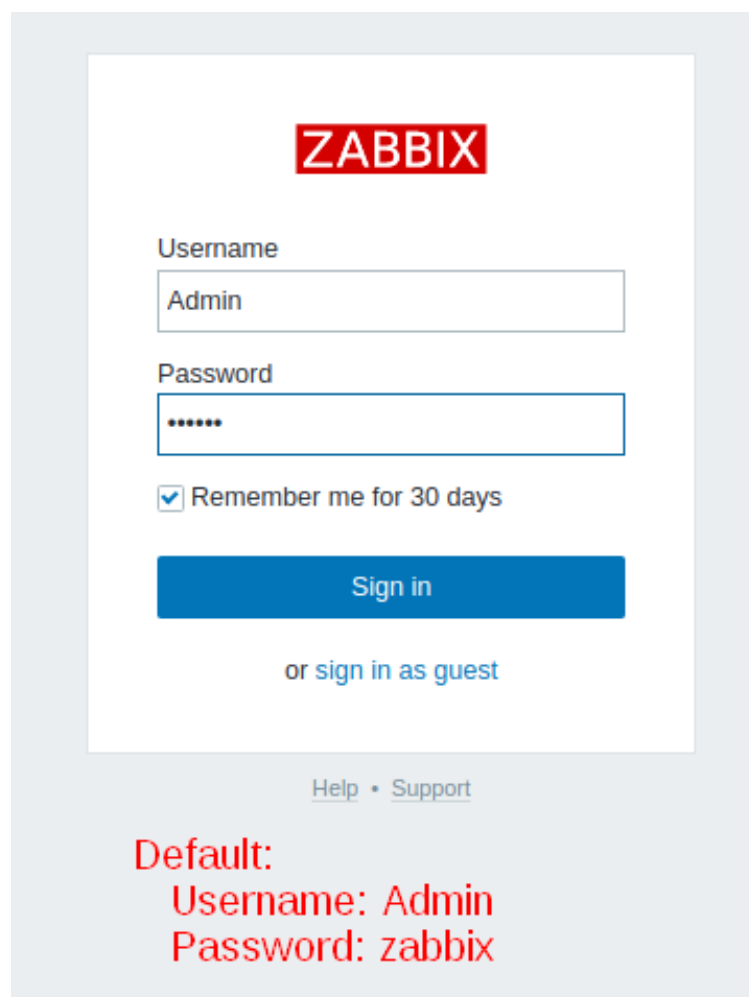
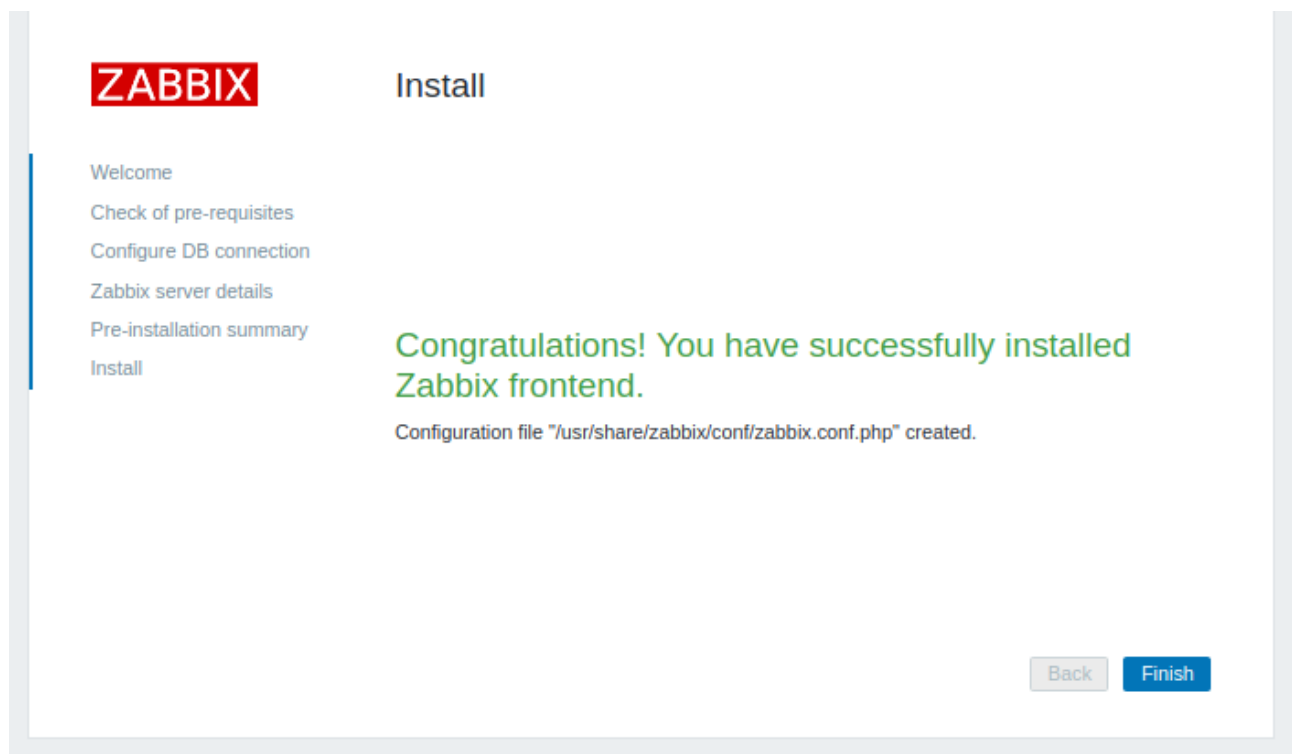
Host

Port

Name

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12. Ahora activamos nuestro Zabbix Server, que almacenará la información que vayamos monitorizando.

The screenshot shows the Zabbix web interface. The 'Configuration' menu is highlighted. Under 'Configuration', the 'Hosts' sub-menu is selected. The 'Hosts' page displays a table of hosts. The first host, 'Zabbix server', has a status of 'Disabled', which is highlighted with a red box. The table columns include Name, Applications, Items, Triggers, Graphs, Discovery, Web, Interface, Templates, Status, Availability, Agent encryption, and Info.

Name	Applications	Items	Triggers	Graphs	Discovery	Web	Interface	Templates	Status	Availability	Agent encryption	Info
Zabbix server	Applications 11	Items 68	Triggers 46	Graphs 11	Discovery 2	Web 127.0.0.1: 10050		Template App Zabbix Server, Template OS Linux (Template App Zabbix Agent)	Disabled	ZBX SNMP JMX IPMI	NONE	

The screenshot shows the Zabbix web interface. The 'Hosts' page displays a table of hosts. The first host, 'Zabbix server', has a status of 'Enabled', which is highlighted with a red box. The table columns include Name, Applications, Items, Triggers, Graphs, Discovery, Web, Interface, Templates, Status, Availability, Agent encryption, and Info.

Name	Applications	Items	Triggers	Graphs	Discovery	Web	Interface	Templates	Status	Availability	Agent encryption	Info
Zabbix server	Applications 11	Items 68	Triggers 46	Graphs 11	Discovery 2	Web 127.0.0.1: 10050		Template App Zabbix Server, Template OS Linux (Template App Zabbix Agent)	Enabled	ZBX SNMP JMX IPMI	NONE	

13. Ahora añadimos los siguientes templates.

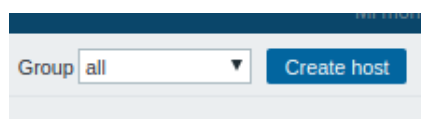
The screenshot shows the Zabbix web interface. The 'Configuration' menu is highlighted. Under 'Configuration', the 'Templates' sub-menu is selected. The 'Templates' page displays a list of templates. The 'Template App HTTP Service' and 'Template App SSH Service' are selected, indicated by checked checkboxes and highlighted rows. The table columns include Name, Applications, and Items.

Name	Applications	Items
Template App Apache Tomcat JMX	Applications 5	Items
Template App FTP Service	Applications 1	Items
Template App Generic Java JMX	Applications 8	Items
<input checked="" type="checkbox"/> Template App HTTP Service	Applications 1	Items
Template App HTTPS Service	Applications 1	Items
Template App IMAP Service	Applications 1	Items
Template App LDAP Service	Applications 1	Items
Template App NNTP Service	Applications 1	Items
Template App NTP Service	Applications 1	Items
Template App POP Service	Applications 1	Items
Template App SMTP Service	Applications 1	Items
<input checked="" type="checkbox"/> Template App SSH Service	Applications 1	Items
Template App Telnet Service	Applications 1	Items

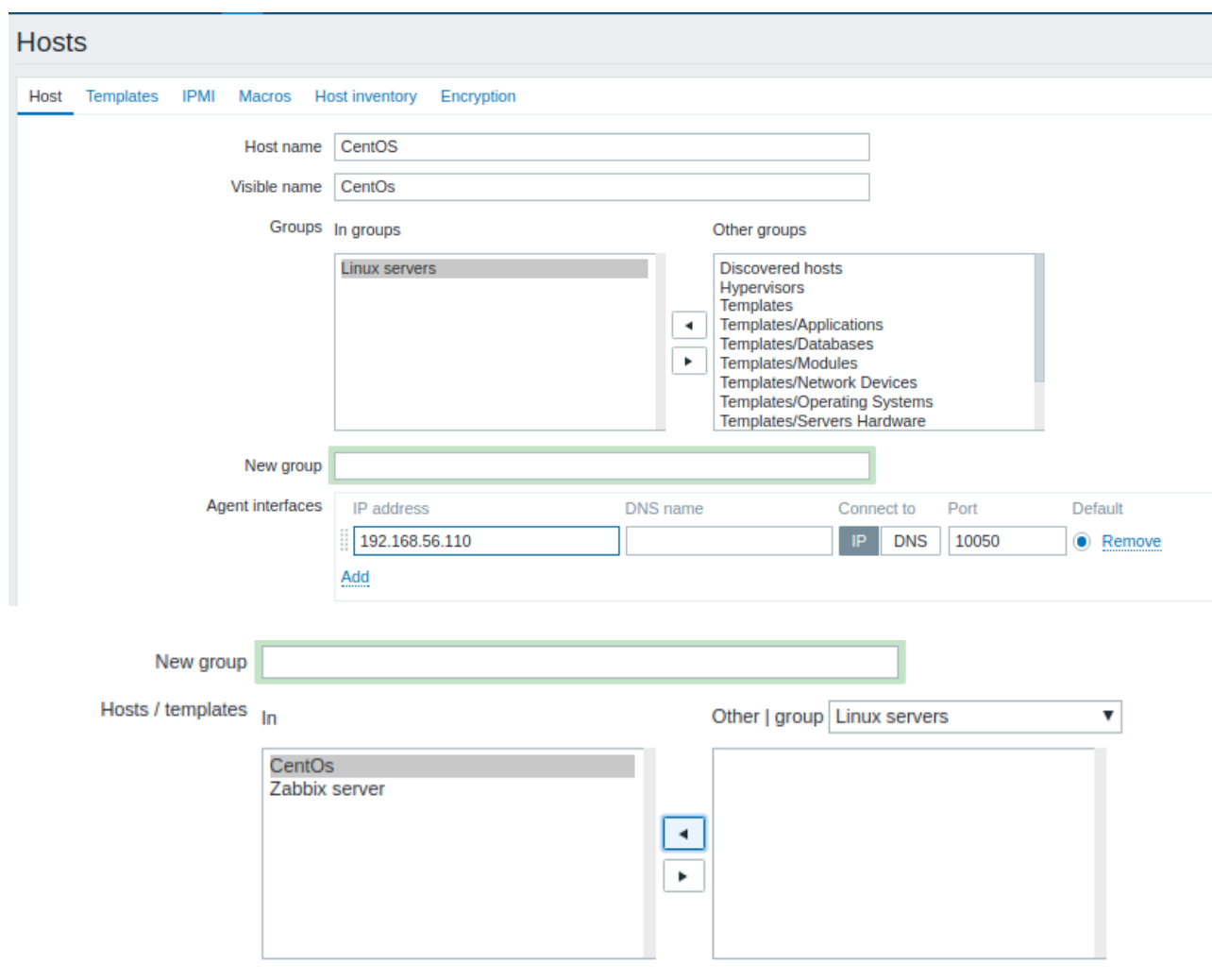
Name	Applications	Items	Triggers	Graphs	Discovery	Web	Interface	Templates
Zabbix server	Applications 13	Items 79	Triggers 50	Graphs 14	Discovery 2	Web 127.0.0.1: 10050		Template App HTTP Service, Template App SSH Service, Template App Zabbix Server, Template OS Linux (Template App Zabbix Agent)

14. Ahora pasaremos a configurar CentOS que a diferencia de Ubuntu Server no viene añadido por defecto, por estar en un servidor ajeno a donde se encuentra Zabbix-Server, así que tenemos que configurarlo a mano.

Vamos a **Configuration/Hosts/Create host**, cambiamos el **host name** y el **Visible name** y lo añadimos al grupo de **Linux servers**, finalmente en **Agent interfaces** añadimos la **IP de CentOS 192.168.56.110** en modo IP y en el puerto por defecto **-10050-**. Tras esto vamos a **Templates** y al igual que para Ubuntu Server, **añadimos Template App HTTP Service, Template App SSH Service y opcionalmente Template OS Linux**, actualizamos y ya está listo.



A small screenshot showing a dropdown menu with 'all' selected and a 'Create host' button.



The screenshot shows the 'Hosts' configuration page in Zabbix. The 'Host name' is 'CentOS' and the 'Visible name' is 'CentOs'. The 'Groups' section shows 'Linux servers' in the 'In groups' list. The 'Agent interfaces' section shows an IP address of '192.168.56.110' with a 'Port' of '10050'. The 'Templates' section shows 'CentOs' and 'Zabbix server' in the 'In' list, and 'Linux servers' in the 'Other | group' dropdown.

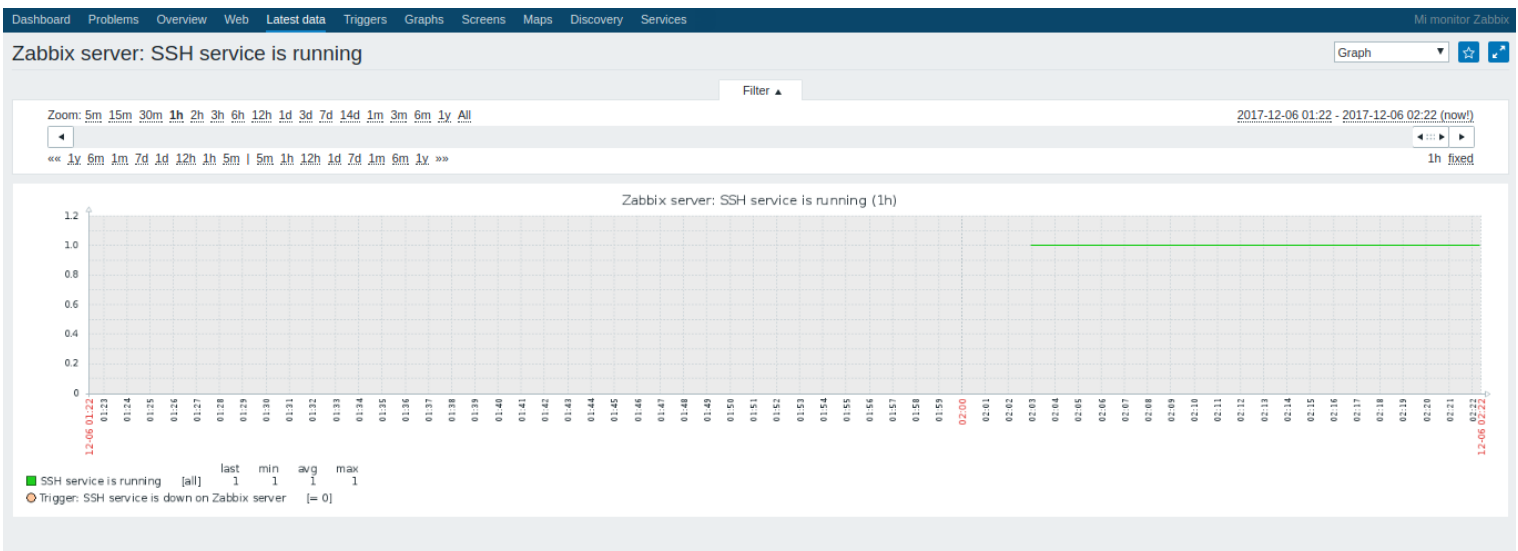
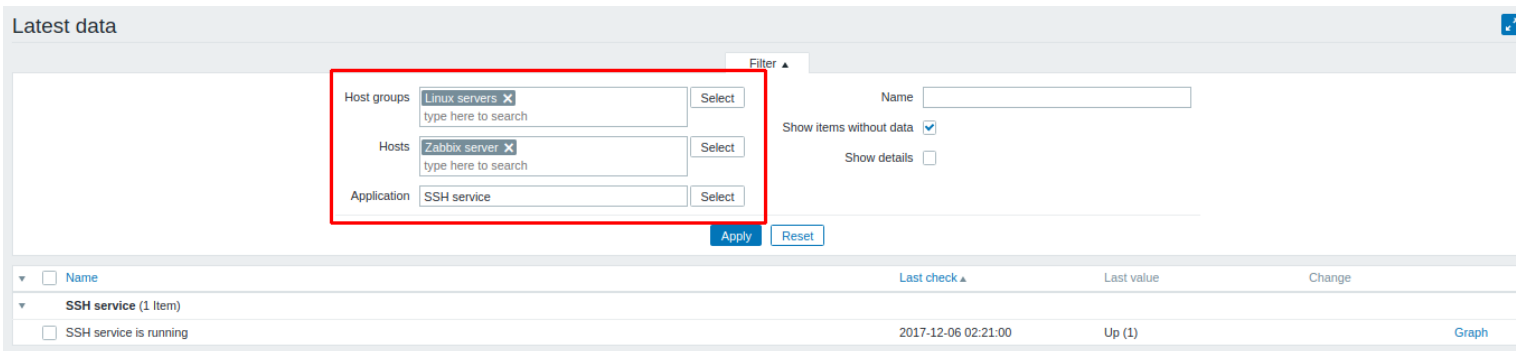
15. Tras esto podemos ver todas las incidencias, gráficas y demás a través de la aplicación web. Algunos ejemplos:

```
juanka1995@juanka1995-Laptop ~ $ ssh usuario@192.168.56.105
usuario@192.168.56.105's password:
Welcome to Ubuntu 16.04.3 LTS (GNU/Linux 4.4.0-87-generic x86_64)

 * Documentation:  https://help.ubuntu.com
 * Management:    https://landscape.canonical.com
 * Support:       https://ubuntu.com/advantage

Pueden actualizarse 2 paquetes.
0 actualizaciones son de seguridad.

*** Es necesario reiniciar el sistema ***
Last login: Wed Dec  6 01:46:58 2017
usuario@ubuntu:~$
```



Referencias utilizadas

- <https://www.zabbix.com/documentation/3.4/manual>
- <http://yallalabs.com/linux/how-to-install-zabbix-3-4-monitoring-server-on-ubuntu-16-04-lts/>