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Práctica 6. Pruebas de rendimiento y monitorización en red

En esta práctica, haremos pruebas de rendimiento sencillas sobre dos servidores web con Apache y Nginx. Después, usaremos el monitor de sistemas en red Zabbix para monitorizar los servidores. Utilizaremos varias máquinas virtuales.

Contenido:

Preparación del entorno (10 min.)

En esta práctica usaremos cuatro máquinas (`cliente`, `apache`, `nginx` y `zabbix`).

Una vez importada la imagen `ECO.ova`, en *Configuración → Red*, habilita el *Adaptador 2* (`eth1`), que estará conectado a una red interna llamada `intnet`.

Realiza tres clonaciones enlazadas generando nuevas direcciones MAC para todos los interfaces de red. Establece el nombre correspondiente a cada máquina. Inicia las máquinas.

Configura la máquina `cliente`:

```
$ sudo ip addr add 192.168.0.1/24 dev eth1
$ sudo ip link set dev eth1 up
$ sudo apt-get update
$ sudo apt-get install apache2-utils
```

Configura la máquina `apache`:

```
$ sudo ip addr add 192.168.0.2/24 dev eth1
$ sudo ip link set dev eth1 up
$ sudo apt-get update
$ sudo apt-get install apache2
```

Configura la máquina `nginx`:

```
$ sudo ip addr add 192.168.0.3/24 dev eth1
$ sudo ip link set dev eth1 up
$ sudo apt-get update
$ sudo apt-get install nginx
$ sudo service nginx start
```

Configura la máquina `zabbix`:

```
$ sudo ip addr add 192.168.0.4/24 dev eth1
$ sudo ip link set dev eth1 up
```

Pruebas de rendimiento (40 min.)

Apache Bench es una herramienta para realizar pruebas de rendimiento sencillas en servidores web.

Copia el contenido del fichero `/var/www/index.html` de `apache` en el fichero `/usr/share/nginx/www/index.html` de `nginx`.

apache -> /var/www/index.html
<html><body> It works!   This is the default web page for this server.   The web server software is running but no content has been added, yet. </body></html>
nginx -> /usr/share/nginx/www/index.html
<html> <head> <title>Welcome to nginx!</title> </head> <body bgcolor="white" text="black">   Welcome to nginx!   </body> </html>

Usaremos Apache Bench (`ab`) en `cliente` para realizar pruebas de rendimiento en `apache` y `nginx` con un fichero estático simple (`index.html`). Por ejemplo, la siguiente orden realiza 1.000 peticiones con 25 peticiones concurrentes:

```
$ ab -n 1000 -c 25 -r http://192.168.0.2/
```

Realiza pruebas de carga consistentes en 10.000 peticiones con diferentes niveles de concurrencia (por ejemplo, con 1, 25, 50, 100, 250 y 500). Observa la productividad media (*Requests per second*) y el tiempo de respuesta (*Time per request*) para cada nivel de concurrencia. Si algún resultado no es convincente, repite la prueba.

Crea dos tablas (o, mejor, dos gráficos), una con la productividad y otra con el tiempo de respuesta, comparando Apache y Nginx. Escribe un análisis de los resultados.

Para practicar más:

● Usa páginas dinámicas (ej. PHP, acceso a bases de datos...) y peticiones más complejas (parámetros, método POST, cabeceras, autenticación, *cookies*…). ● Usa otras herramientas de pruebas de rendimiento (HTTPerf, Siege, jMeter…). ● Haz pruebas con una aplicación real (OpenCart, Drupal, Wordpress, Joomla…).

DOCUMENTACION.

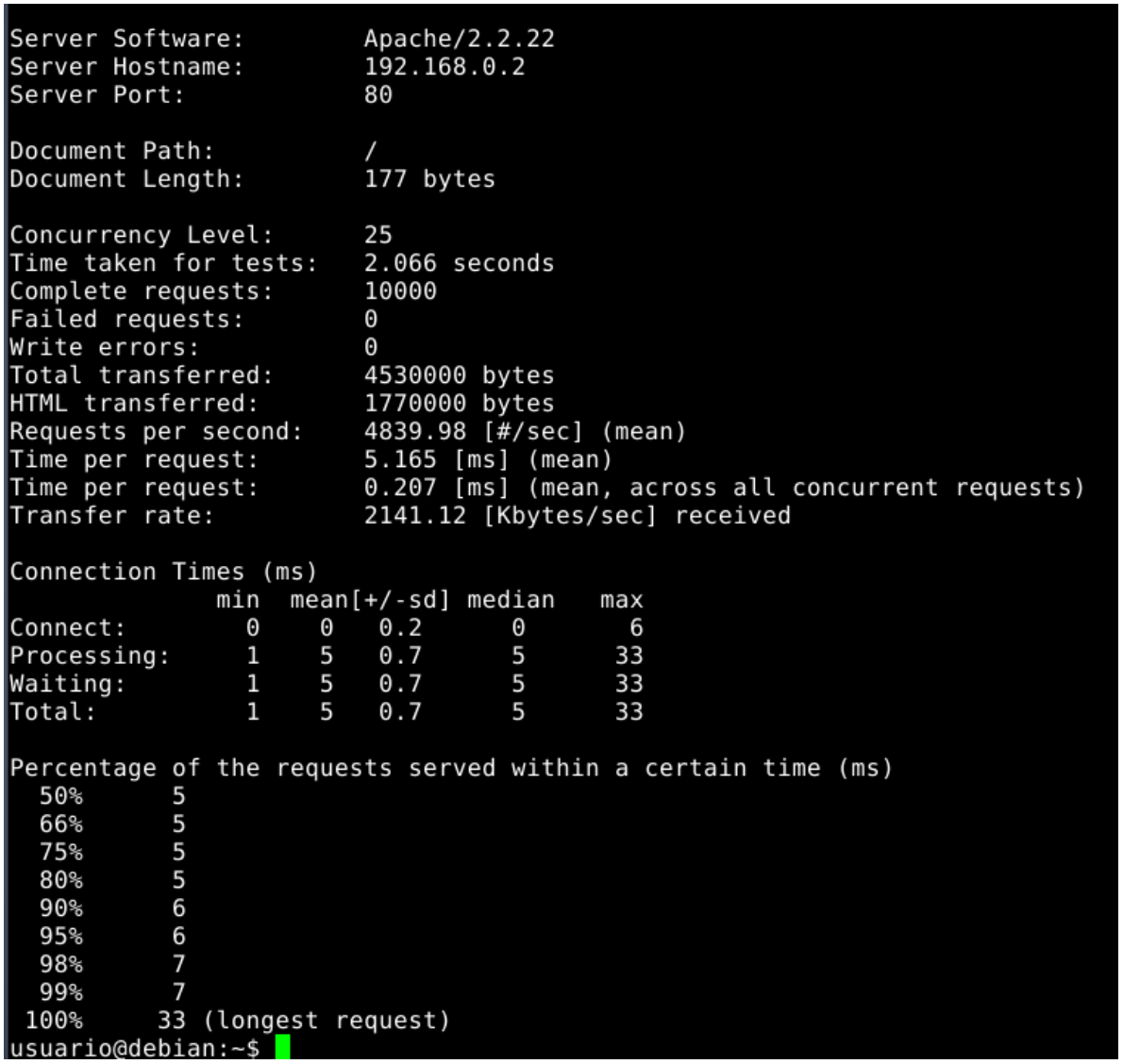
https://www.datadoghq.com/blog/apachebench/

Apache

ab -n 10000 -c 1 -r http://192.168.0.2/

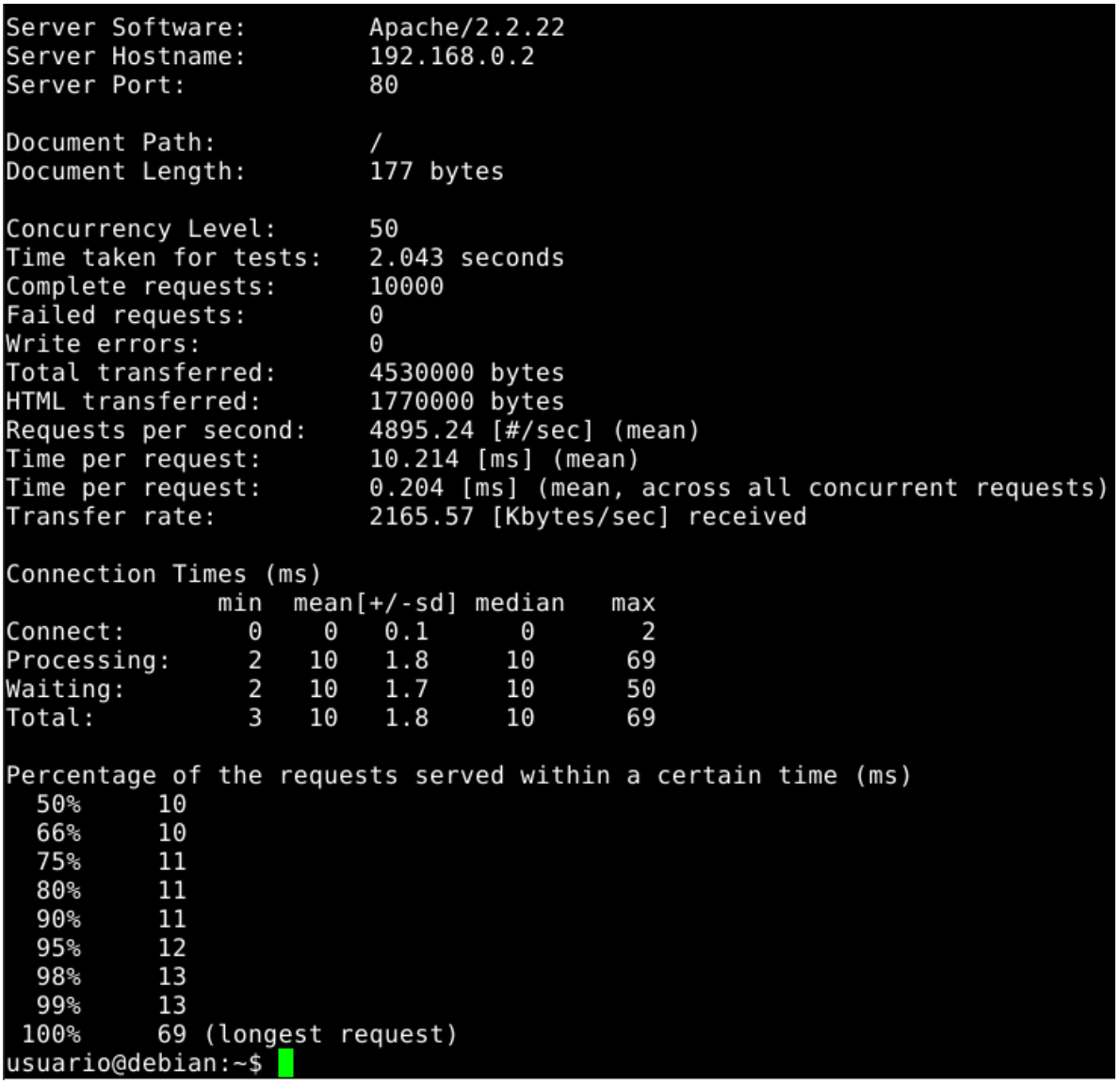
```
Server Software:        Apache/2.2.22
Server Hostname:        192.168.0.2
Server Port:            80

Document Path:          /
Document Length:        177 bytes

Concurrency Level:      1
Time taken for tests:   3.648 seconds
Complete requests:      10000
Failed requests:        0
Write errors:           0
Total transferred:      4530000 bytes
HTML transferred:       1770000 bytes
Requests per second:    2741.50 [#/sec] (mean)
Time per request:       0.365 [ms] (mean)
Time per request:       0.365 [ms] (mean, across all concurrent requests)
Transfer rate:          1212.79 [Kbytes/sec] received

Connection Times (ms)
              min  mean[+/-sd] median   max
Connect:        0    0   0.1      0       2
Processing:     0    0   0.2      0       6
Waiting:        0    0   0.2      0       6
Total:          0    0   0.2      0       7

Percentage of the requests served within a certain time (ms)
  50%      0
  66%      0
  75%      0
  80%      0
  90%      0
  95%      1
  98%      1
  99%      2
 100%      7 (longest request)
usuario@debian:~$
```

ab -n 10000 -c 25 -r http://192.168.0.2/



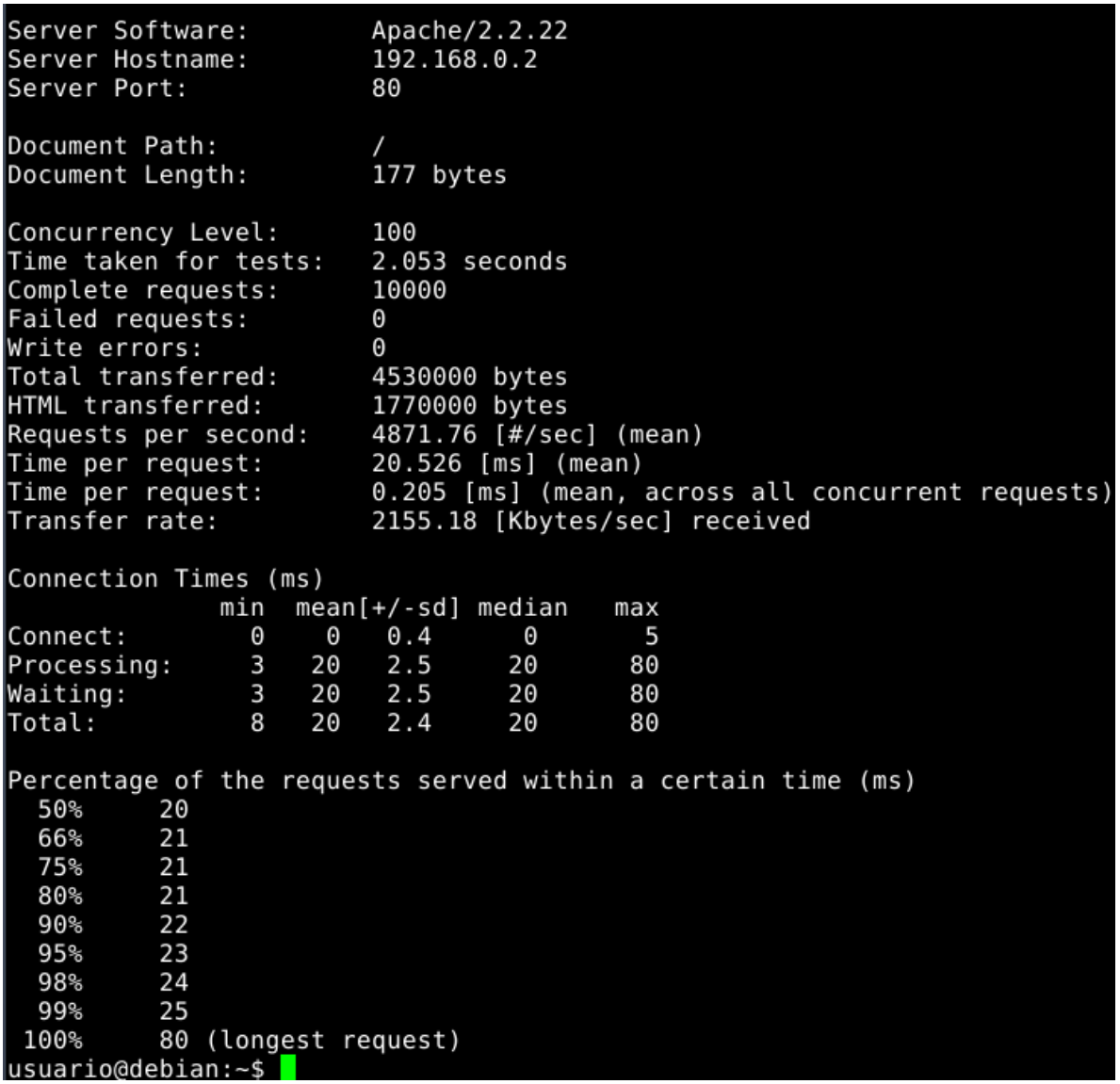
```
Server Software:        Apache/2.2.22
Server Hostname:        192.168.0.2
Server Port:            80

Document Path:          /
Document Length:        177 bytes

Concurrency Level:      25
Time taken for tests:   2.066 seconds
Complete requests:      10000
Failed requests:        0
Write errors:           0
Total transferred:      4530000 bytes
HTML transferred:       1770000 bytes
Requests per second:    4839.98 [#/sec] (mean)
Time per request:       5.165 [ms] (mean)
Time per request:       0.207 [ms] (mean, across all concurrent requests)
Transfer rate:          2141.12 [Kbytes/sec] received

Connection Times (ms)
              min  mean[+/-sd] median   max
Connect:        0    0   0.2      0       6
Processing:     1    5   0.7      5      33
Waiting:        1    5   0.7      5      33
Total:          1    5   0.7      5      33

Percentage of the requests served within a certain time (ms)
  50%      5
  66%      5
  75%      5
  80%      5
  90%      6
  95%      6
  98%      7
  99%      7
 100%     33 (longest request)
usuario@debian:~$
```

ab -n 10000 -c 50 -r http://192.168.0.2/



```
Server Software:        Apache/2.2.22
Server Hostname:        192.168.0.2
Server Port:            80

Document Path:          /
Document Length:        177 bytes

Concurrency Level:      50
Time taken for tests:   2.043 seconds
Complete requests:      10000
Failed requests:        0
Write errors:           0
Total transferred:      4530000 bytes
HTML transferred:       1770000 bytes
Requests per second:    4895.24 [#/sec] (mean)
Time per request:       10.214 [ms] (mean)
Time per request:       0.204 [ms] (mean, across all concurrent requests)
Transfer rate:          2165.57 [Kbytes/sec] received

Connection Times (ms)
              min  mean[+/-sd] median   max
Connect:        0    0   0.1      0       2
Processing:     2   10   1.8     10      69
Waiting:        2   10   1.7     10      50
Total:          3   10   1.8     10      69

Percentage of the requests served within a certain time (ms)
  50%     10
  66%     10
  75%     11
  80%     11
  90%     11
  95%     12
  98%     13
  99%     13
 100%     69 (longest request)
usuario@debian:~$
```

ab -n 10000 -c 100 -r http://192.168.0.2/



```
Server Software:        Apache/2.2.22
Server Hostname:        192.168.0.2
Server Port:            80

Document Path:          /
Document Length:        177 bytes

Concurrency Level:      100
Time taken for tests:   2.053 seconds
Complete requests:      10000
Failed requests:        0
Write errors:           0
Total transferred:      4530000 bytes
HTML transferred:       1770000 bytes
Requests per second:    4871.76 [#/sec] (mean)
Time per request:       20.526 [ms] (mean)
Time per request:       0.205 [ms] (mean, across all concurrent requests)
Transfer rate:          2155.18 [Kbytes/sec] received

Connection Times (ms)
              min  mean[+/-sd] median   max
Connect:        0    0   0.4      0       5
Processing:     3   20   2.5     20      80
Waiting:        3   20   2.5     20      80
Total:          8   20   2.4     20      80

Percentage of the requests served within a certain time (ms)
  50%     20
  66%     21
  75%     21
  80%     21
  90%     22
  95%     23
  98%     24
  99%     25
 100%     80 (longest request)
usuario@debian:~$
```

ab -n 10000 -c 250 -r http://192.168.0.2/

```
Server Software:        Apache/2.2.22
Server Hostname:        192.168.0.2
Server Port:            80

Document Path:          /
Document Length:        177 bytes

Concurrency Level:      250
Time taken for tests:   3.089 seconds
Complete requests:      10000
Failed requests:        0
Write errors:           0
Total transferred:      4530000 bytes
HTML transferred:       1770000 bytes
Requests per second:    3237.52 [#/sec] (mean)
Time per request:       77.220 [ms] (mean)
Time per request:       0.309 [ms] (mean, across all concurrent requests)
Transfer rate:          1432.22 [Kbytes/sec] received

Connection Times (ms)
              min  mean[+/-sd] median   max
Connect:        0    3  53.7      0    1000
Processing:     6   46 209.7     26    3074
Waiting:        6   46 209.7     26    3074
Total:         15   50 216.9     26    3081

Percentage of the requests served within a certain time (ms)
  50%     26
  66%     27
  75%     28
  80%     28
  90%     29
  95%     30
  98%     35
  99%   1028
 100%   3081 (longest request)
usuario@debian:~$
```

ab -n 10000 -c 500 -r http://192.168.0.2/

```
Server Software:        Apache/2.2.22
Server Hostname:        192.168.0.2
Server Port:            80

Document Path:          /
Document Length:        177 bytes

Concurrency Level:      500
Time taken for tests:   6.375 seconds
Complete requests:      10000
Failed requests:        3
   (Connect: 0, Receive: 1, Length: 1, Exceptions: 1)
Write errors:           0
Total transferred:      4529547 bytes
HTML transferred:       1769823 bytes
Requests per second:    1568.70 [#/sec] (mean)
Time per request:       318.735 [ms] (mean)
Time per request:       0.637 [ms] (mean, across all concurrent requests)
Transfer rate:          693.90 [Kbytes/sec] received

Connection Times (ms)
              min  mean[+/-sd] median   max
Connect:        0   14 115.6      0    1000
Processing:     6  135 676.4     27    6350
Waiting:        0  134 673.5     27    6350
Total:         16  149 700.0     27    6364

Percentage of the requests served within a certain time (ms)
  50%     27
  66%     28
  75%     28
  80%     29
  90%     30
  95%     35
  98%   3093
  99%   3101
 100%   6364 (longest request)
usuario@debian:~$
```

Nginx

ab -n 10000 -c 1 -r http://192.168.0.3/

```
Server Software:        nginx/1.2.1
Server Hostname:        192.168.0.3
Server Port:            80

Document Path:          /
Document Length:        177 bytes

Concurrency Level:      1
Time taken for tests:   2.586 seconds
Complete requests:      10000
Failed requests:        0
Write errors:           0
Total transferred:      3870000 bytes
HTML transferred:       1770000 bytes
Requests per second:    3866.43 [#/sec] (mean)
Time per request:       0.259 [ms] (mean)
Time per request:       0.259 [ms] (mean, across all concurrent requests)
Transfer rate:          1461.24 [Kbytes/sec] received

Connection Times (ms)
              min  mean[+/-sd] median   max
Connect:        0    0   0.0      0       2
Processing:     0    0   0.2      0      15
Waiting:        0    0   0.2      0      15
Total:          0    0   0.2      0      15

Percentage of the requests served within a certain time (ms)
  50%      0
  66%      0
  75%      0
  80%      0
  90%      0
  95%      0
  98%      0
  99%      0
 100%     15 (longest request)
usuario@debian:~$
```

ab -n 10000 -c 25 -r http://192.168.0.3/

```
Server Software:        nginx/1.2.1
Server Hostname:        192.168.0.3
Server Port:            80

Document Path:          /
Document Length:        177 bytes

Concurrency Level:      25
Time taken for tests:   1.183 seconds
Complete requests:      10000
Failed requests:        0
Write errors:           0
Total transferred:      3870000 bytes
HTML transferred:       1770000 bytes
Requests per second:    8454.56 [#/sec] (mean)
Time per request:       2.957 [ms] (mean)
Time per request:       0.118 [ms] (mean, across all concurrent requests)
Transfer rate:          3195.23 [Kbytes/sec] received

Connection Times (ms)
              min  mean[+/-sd] median   max
Connect:        0    0   0.3      0       5
Processing:     0    3   0.6      3      11
Waiting:        0    3   0.6      3      11
Total:          1    3   0.5      3      11

Percentage of the requests served within a certain time (ms)
  50%      3
  66%      3
  75%      3
  80%      3
  90%      3
  95%      4
  98%      4
  99%      4
 100%     11 (longest request)
usuario@debian:~$
```

ab -n 10000 -c 50 -r http://192.168.0.3/

```
Server Software:        nginx/1.2.1
Server Hostname:        192.168.0.3
Server Port:            80

Document Path:          /
Document Length:        177 bytes

Concurrency Level:      50
Time taken for tests:   1.177 seconds
Complete requests:      10000
Failed requests:        0
Write errors:           0
Total transferred:      3870000 bytes
HTML transferred:       1770000 bytes
Requests per second:    8496.96 [#/sec] (mean)
Time per request:       5.884 [ms] (mean)
Time per request:       0.118 [ms] (mean, across all concurrent requests)
Transfer rate:          3211.25 [Kbytes/sec] received

Connection Times (ms)
              min  mean[+/-sd] median   max
Connect:        0    0   0.5      0       6
Processing:     1    6   1.1      6      18
Waiting:        1    5   1.1      5      18
Total:          3    6   0.9      6      18

Percentage of the requests served within a certain time (ms)
  50%      6
  66%      6
  75%      6
  80%      6
  90%      7
  95%      7
  98%      9
  99%     10
 100%     18 (longest request)
usuario@debian:~$
```

ab -n 10000 -c 100 -r http://192.168.0.3/

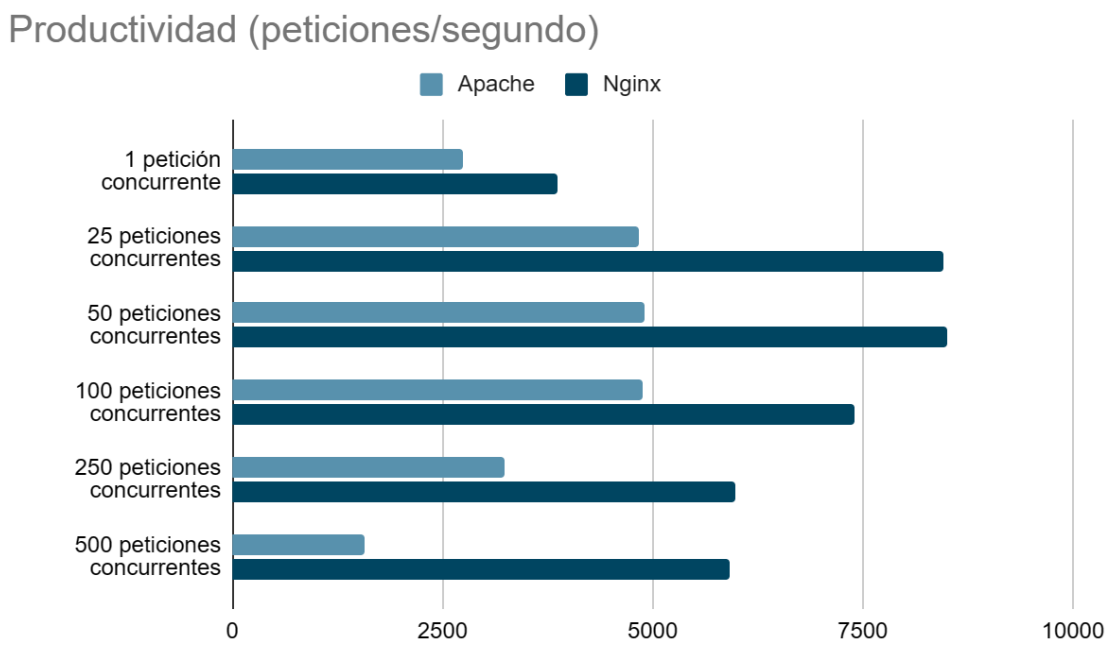
```
Server Software:        nginx/1.2.1
Server Hostname:        192.168.0.3
Server Port:            80

Document Path:          /
Document Length:        177 bytes

Concurrency Level:      100
Time taken for tests:   1.352 seconds
Complete requests:      10000
Failed requests:        0
Write errors:           0
Total transferred:      3870000 bytes
HTML transferred:       1770000 bytes
Requests per second:    7396.58 [#/sec] (mean)
Time per request:       13.520 [ms] (mean)
Time per request:       0.135 [ms] (mean, across all concurrent requests)
Transfer rate:          2795.39 [Kbytes/sec] received

Connection Times (ms)
              min  mean[+/-sd] median   max
Connect:        0    1   1.5      0      13
Processing:     2   13   3.1     12      31
Waiting:        1   12   3.0     12      30
Total:          5   13   3.2     12      31

Percentage of the requests served within a certain time (ms)
  50%     12
  66%     13
  75%     14
  80%     15
  90%     18
  95%     20
  98%     24
  99%     26
 100%     31 (longest request)
usuario@debian:~$
```

ab -n 10000 -c 250 -r http://192.168.0.3/

```
Server Software:        nginx/1.2.1
Server Hostname:        192.168.0.3
Server Port:            80

Document Path:          /
Document Length:        177 bytes

Concurrency Level:      250
Time taken for tests:   1.671 seconds
Complete requests:      10000
Failed requests:        0
Write errors:           0
Total transferred:      3870000 bytes
HTML transferred:       1770000 bytes
Requests per second:    5983.62 [#/sec] (mean)
Time per request:       41.781 [ms] (mean)
Time per request:       0.167 [ms] (mean, across all concurrent requests)
Transfer rate:          2261.39 [Kbytes/sec] received

Connection Times (ms)
              min  mean[+/-sd] median   max
Connect:        0   12 106.0      0    1001
Processing:     7   20  48.6     16     628
Waiting:        5   20  48.6     16     628
Total:         12   33 144.7     17    1626

Percentage of the requests served within a certain time (ms)
  50%     17
  66%     17
  75%     18
  80%     18
  90%     19
  95%     21
  98%     31
  99%   1015
 100%   1626 (longest request)
usuario@debian:~$
```

ab -n 10000 -c 500 -r http://192.168.0.3/

```
Server Software:        nginx/1.2.1
Server Hostname:        192.168.0.3
Server Port:            80

Document Path:          /
Document Length:        177 bytes

Concurrency Level:      500
Time taken for tests:   1.691 seconds
Complete requests:      10000
Failed requests:        0
Write errors:           0
Total transferred:      3870000 bytes
HTML transferred:       1770000 bytes
Requests per second:    5915.21 [#/sec] (mean)
Time per request:       84.528 [ms] (mean)
Time per request:       0.169 [ms] (mean, across all concurrent requests)
Transfer rate:          2235.53 [Kbytes/sec] received

Connection Times (ms)
              min  mean[+/-sd] median   max
Connect:        0   31 170.3      0    1005
Processing:     9   25  66.9     17     643
Waiting:        6   25  67.0     16     643
Total:         10   56 218.2     17    1631

Percentage of the requests served within a certain time (ms)
  50%     17
  66%     18
  75%     19
  80%     19
  90%     21
  95%     45
  98%   1022
  99%   1625
 100%   1631 (longest request)
usuario@debian:~$
```

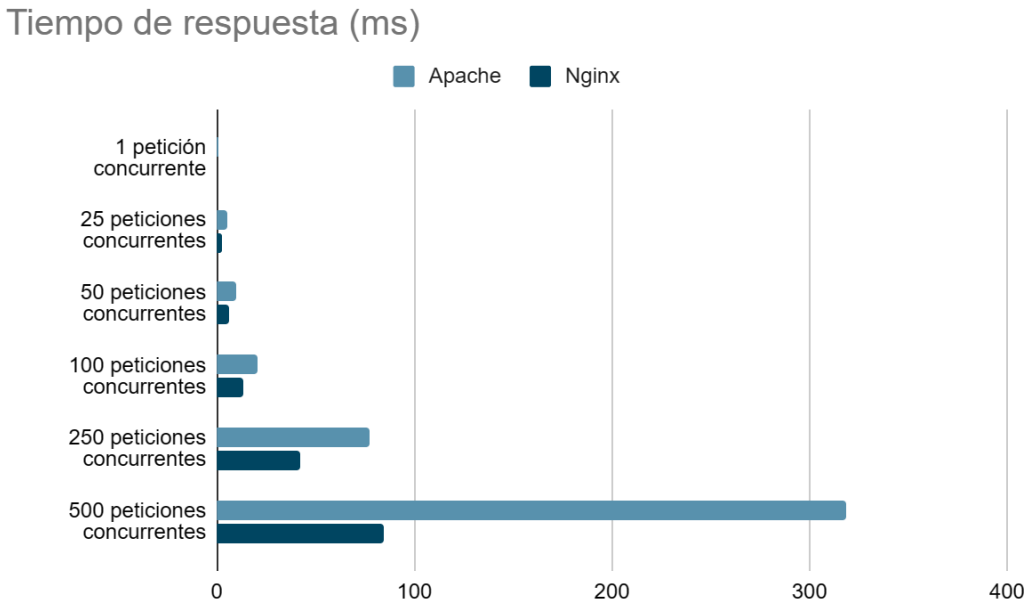


Se puede observar que en todos los casos nginx tiene una productividad mucho mayor, siendo capaz de manejar un número de peticiones por segundo mucho mayor. Además contra mayr número de peticiones concurrentes hay se hace más notable la diferencia entre apache y nginx.

<u>Diferencia entre los dos campos de time per request (ejemplo para entendero)</u>
Assume that we make **3** requests with **3** concurrent connections. The **Time taken for tests** will be **90ms** and each request are 40ms, 50ms, 30ms. So what's the value of these two **Time per request**?

- Time per request (mean) = (40 + 50 + 30) / 3 = 40ms
- Time per request (mean, across all concurrent requests) = 90 / 3 = 30ms

Para hacer el gráfico he cogido el (mean):



En este grafo se puede ver como cuando solo hay una petición concurrente tanto apache como nginx tienen un tiempo constante. Sin embargo, a medida que se van aumentando el número de peticiones concurrentes, apache tiene un tiempo de respuesta mucho mayor que nginx.

Monitorización de sistemas en red (40 min.)

Instalación de Zabbix

Zabbix (www.zabbix.com) es una herramienta gratuita y de código abierto diseñada para la monitorización en tiempo real de millones de métricas recogidas desde decenas de miles de servidores, máquinas virtuales y dispositivos de red.

Configura el repositorio de Zabbix en `apache`, `nginx` y `zabbix`:

```
$ wget
http://repo.zabbix.com/zabbix/3.4/debian/pool/main/z/zabbix
release/zabbix-release_3.4-1+wheezy_all.deb
```

El enlace viene mal, este es el correcto y AÑADIR SUDO
http://repo.zabbix.com/zabbix/3.4/debian/pool/main/z/zabbix-release/zabbix-release_3.4-1%2Bwheezy_all.deb

```
$ sudo dpkg -i zabbix-release_3.4-1+wheezy_all.deb
```

```
sudo dpkg -i zabbix-release_3.4-1+jessie_all.deb
```

```
$ sudo apt-get update
```

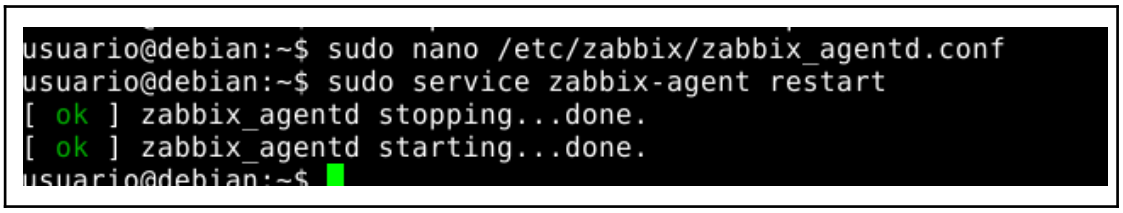
Instala el agente de Zabbix en `apache` y `nginx`:

```
$ sudo apt-get install zabbix-agent
```

En el fichero `/etc/zabbix/zabbix_agentd.conf`, cambia la siguiente opción: `Server=192.168.0.4`

Finalmente, reinicia el agente de Zabbix:

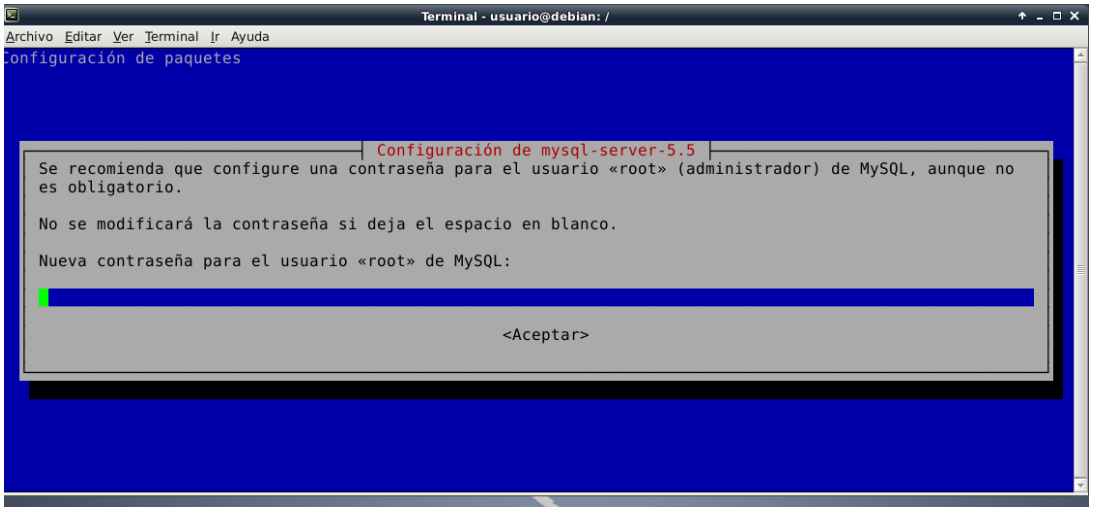
```
$ sudo service zabbix-agent restart
```



Instala el servidor y el interfaz *web* de Zabbix en `zabbix`:

```
$ sudo apt-get install apache2 zabbix-server-mysql
zabbix frontend-php php5-mysql
```

`pssw:` zabbix



`NOTA: zabbix-frontend-php`

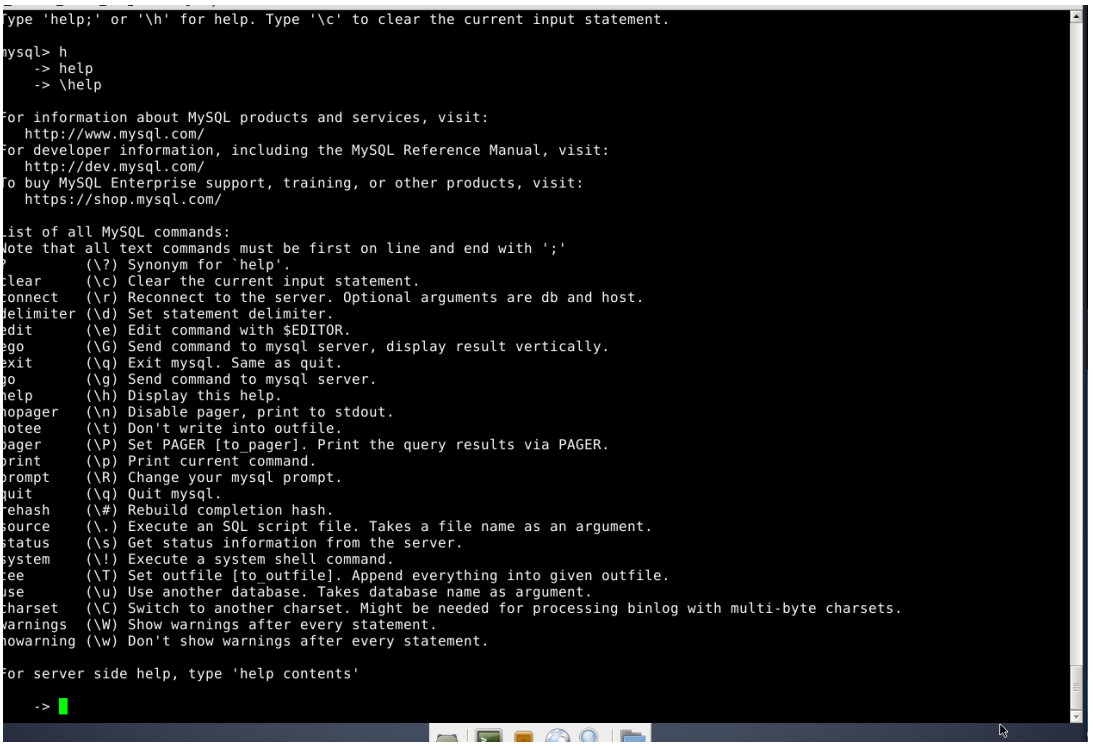
Establece “zabbix” como contraseña del usuario root de MySQL cuando se solicite.

Configura el servidor de Zabbix en `zabbix`:

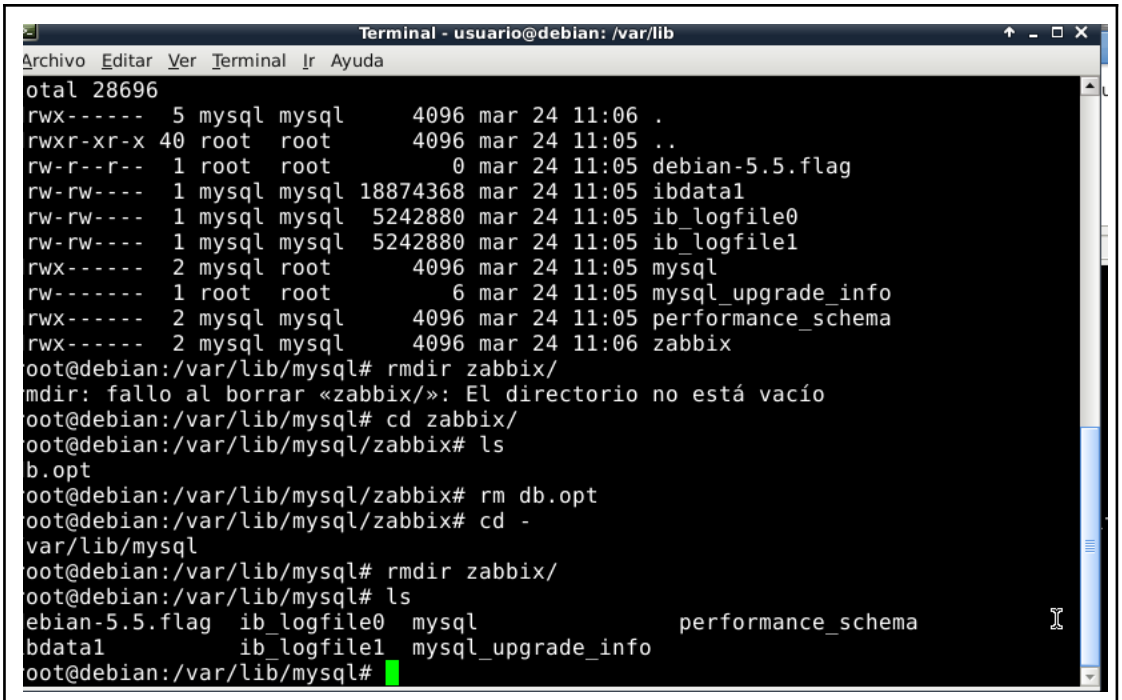
```
$ sudo mysql -uroot -pzabbix << EOF
create database zabbix character set utf8 collate
utf8_bin;  grant all privileges on zabbix.* to
zabbix@localhost  identified by 'zabbix';
quit
EOF
```

He tenido que volver a crearla
Nombre DB: zabbix3

```
Enter password:
ERROR 1007 (HY000) at line 1: Can't create database 'zabbix2'; database exists
usuario@debian:~$ sudo mysql -u root -p zabbix << EOF
create database zabbix3 character set utf8 collate utf8_bin;
grant all privileges on zabbix.* to zabbix@localhost identified by 'zabbix3';
quit
EOF

Enter password:
usuario@debian:~$
```



He tenido que borrar la db -> var/lib/mysql/zabbix

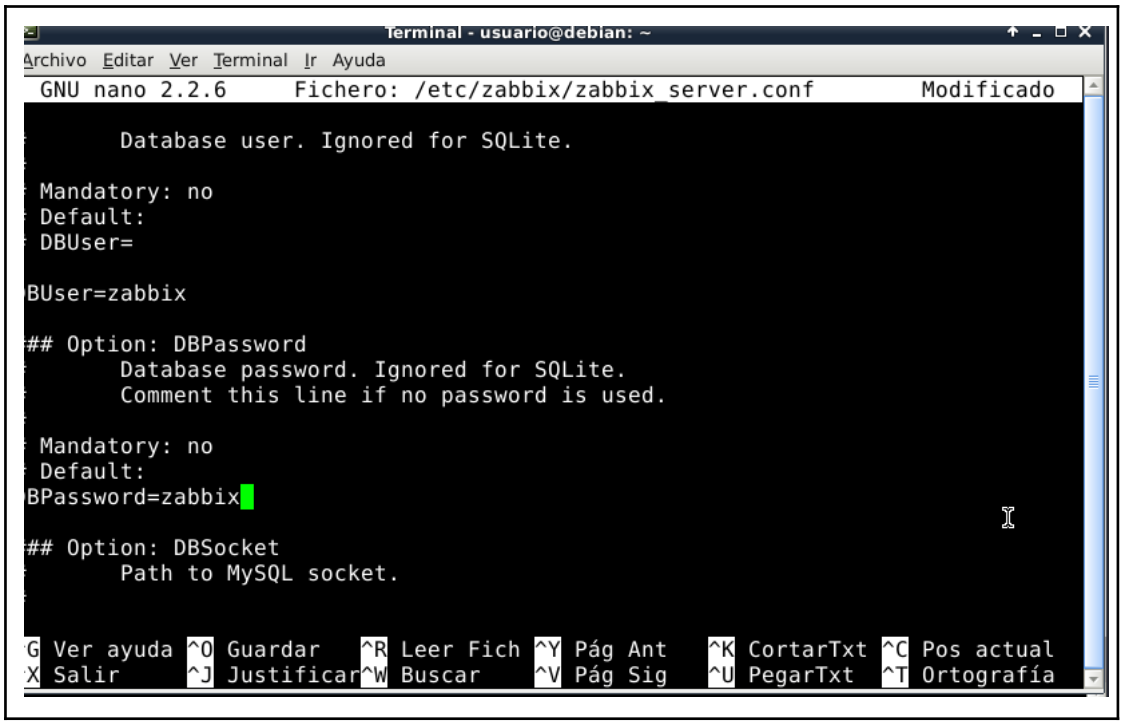


zcat /usr/share/zabbix-server-mysql/schema.sql.gz | mysql -uzabbix -p zabbix

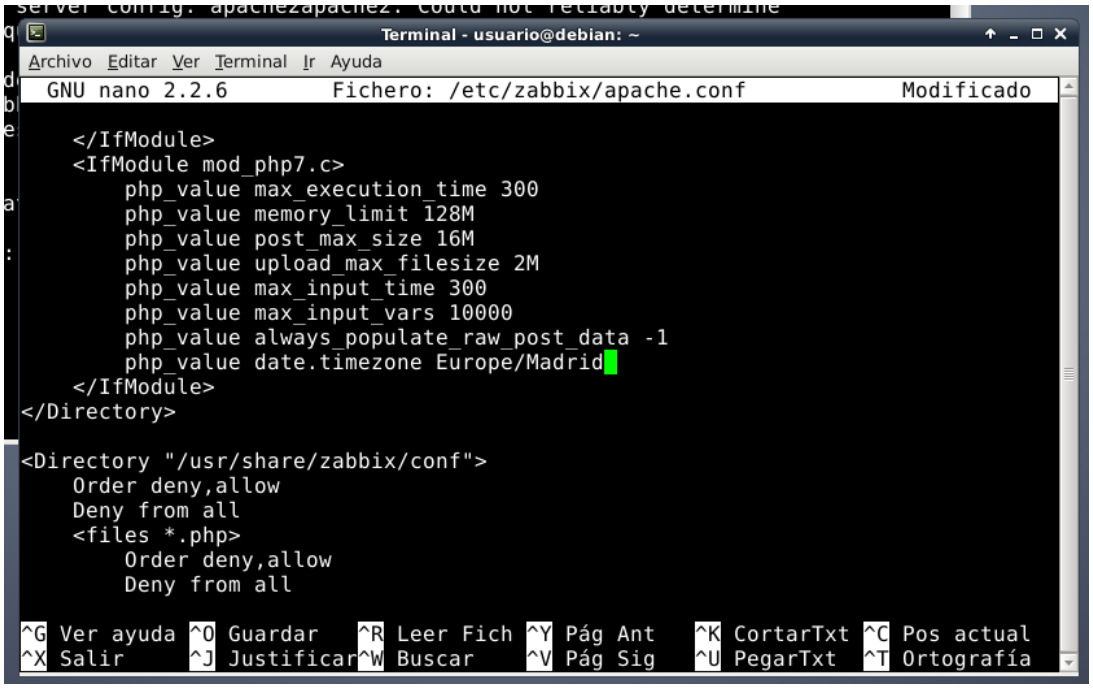
```
$ zcat /usr/share/doc/zabbix-server-mysql/create.sql.gz
|  mysql -uzabbix -pzabbix zabbix
```

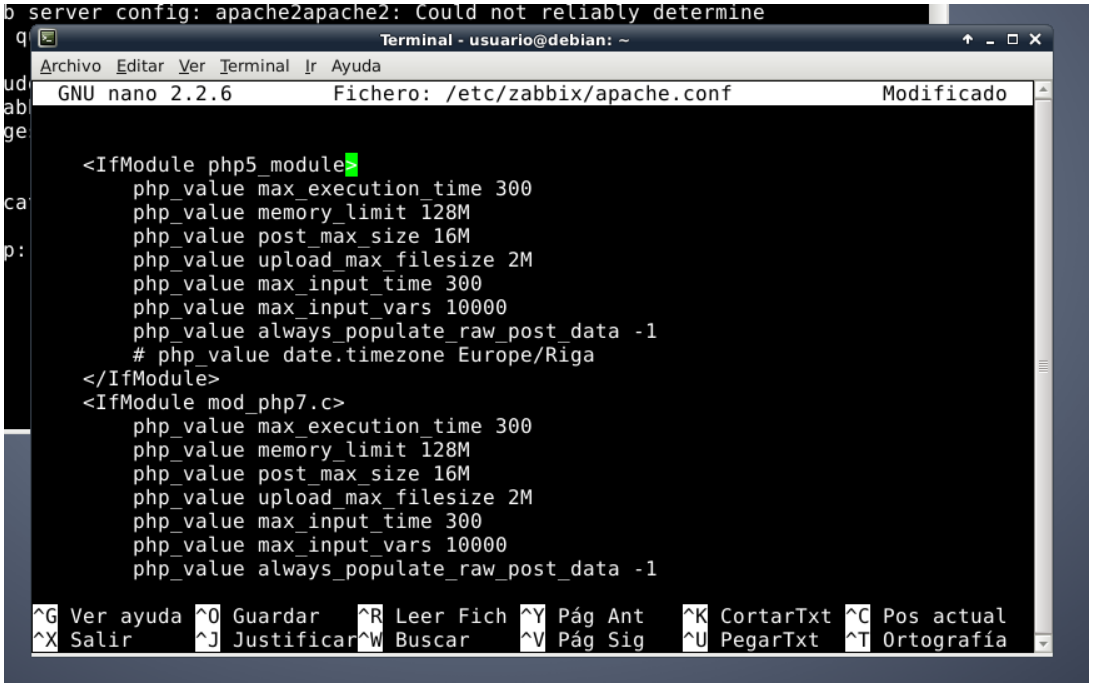
En el fichero `/etc/zabbix/zabbix_server.conf`, establece la siguiente opción (y asegúrate de que no esté comentada):

```
DBPassword=zabbix
```

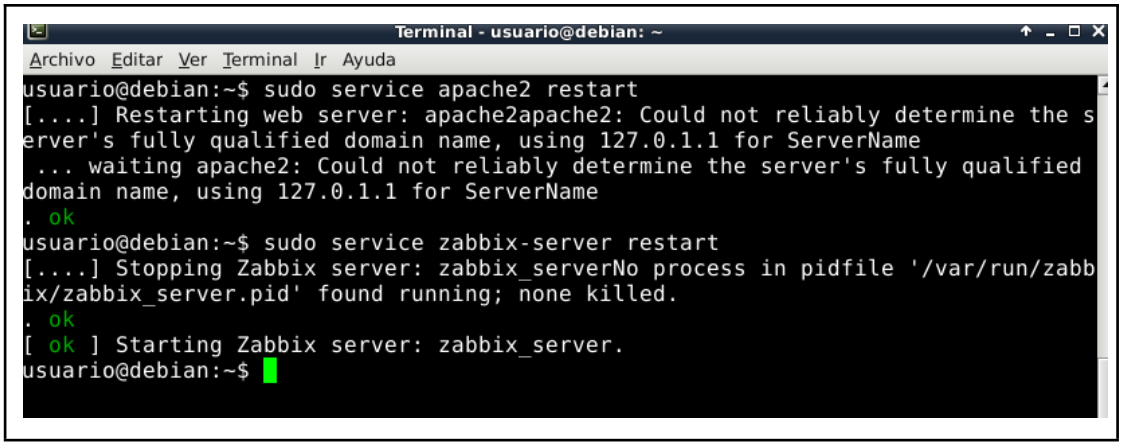


En el fichero `/etc/zabbix/apache.conf`, descomenta la opción `date.timezone` y cámbiala a `Europe/Madrid`. Cambia también la línea con `<IfModule mod_php5.c>` a `<IfModule php5_module>`, o bien, coméntala junto con el correspondiente `</IfModule>`. Finalmente, reinicia Apache y el servidor de Zabbix:

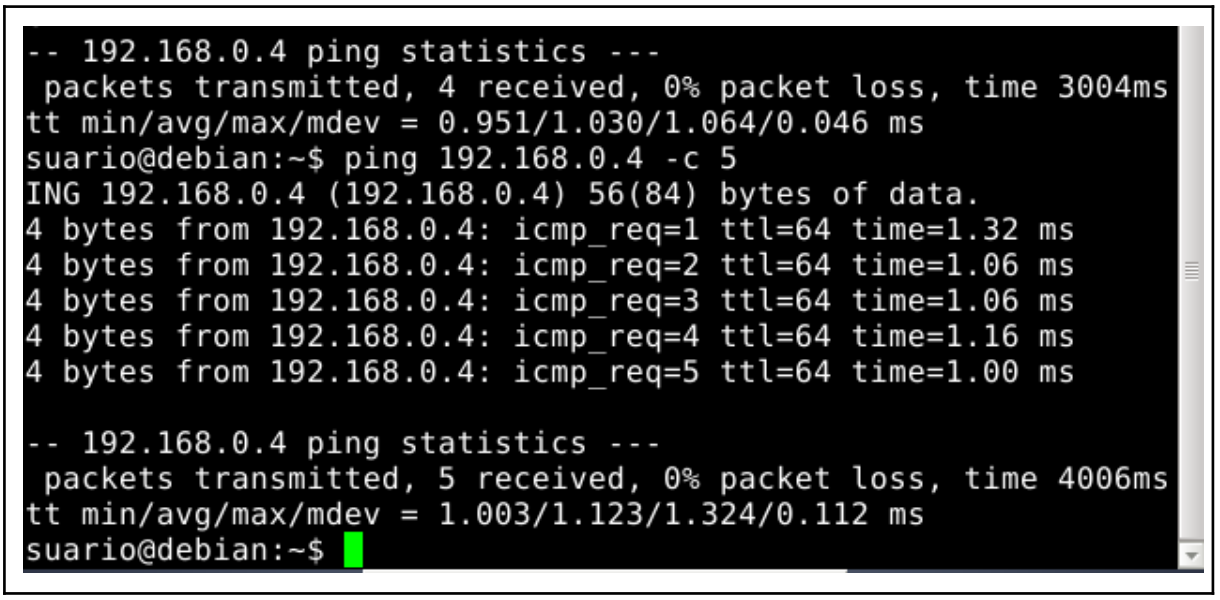


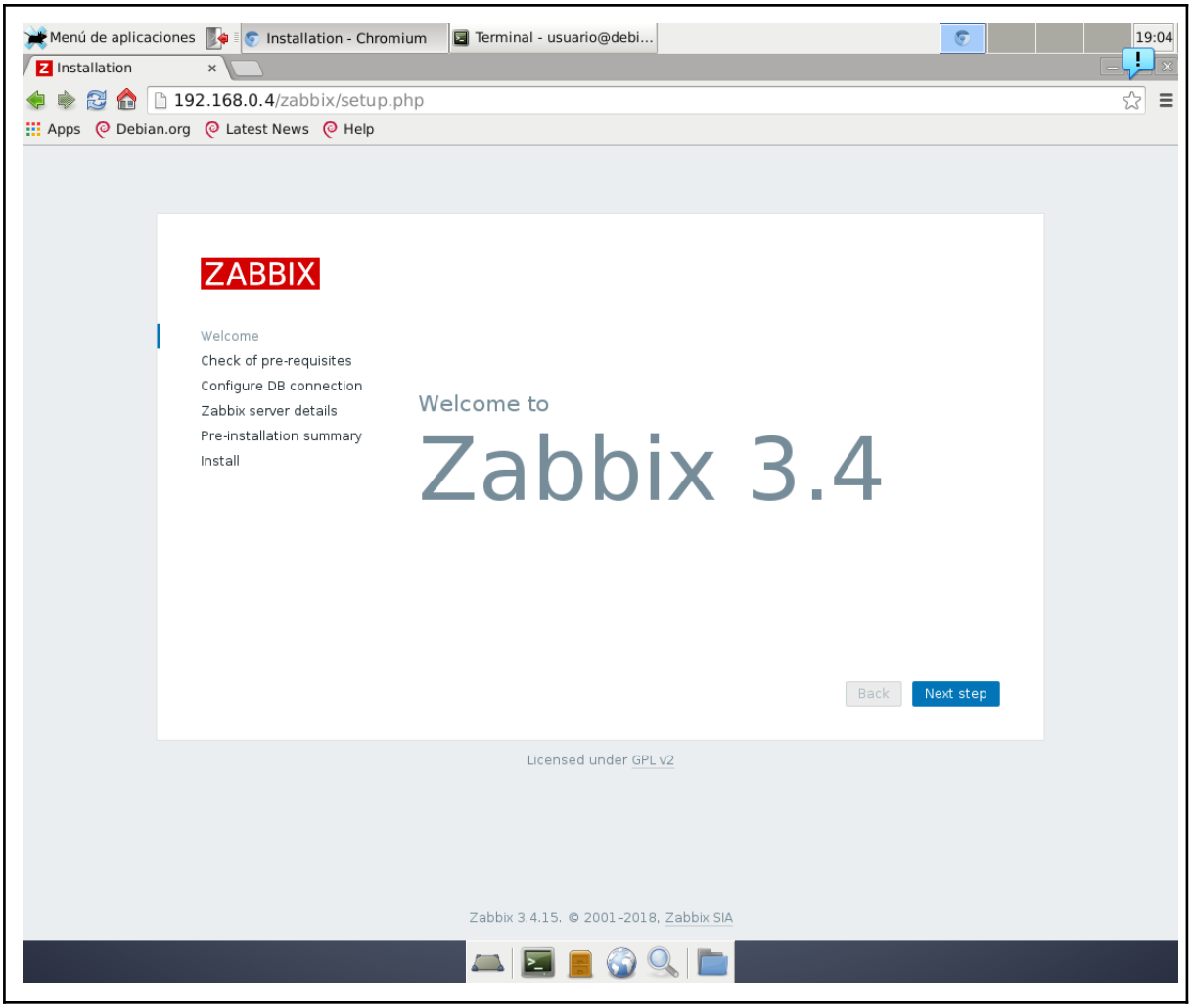


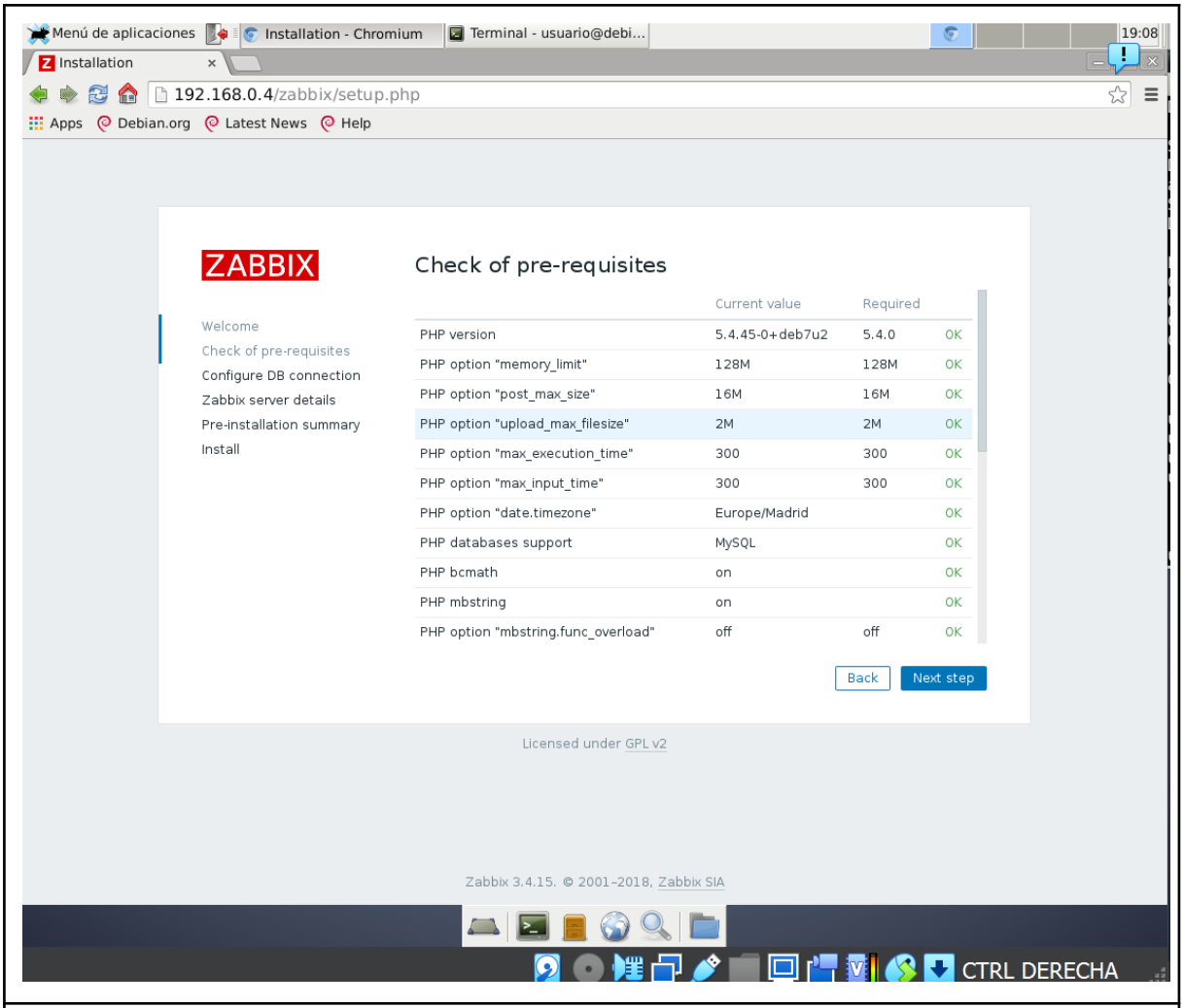

```
$ sudo service apache2 restart
$ sudo service zabbix-server restart
```



Abre un navegador en `cliente` y ve a `192.168.0.4/zabbix`. Completa la instalación del interfaz *web* con los valores que aparecen por defecto, asegurándote de que el tipo de base de datos es MySQL y de que el usuario y la contraseña son “zabbix”. Cuando hayas finalizado el proceso de configuración, aparecerá una pantalla de *login*. Entra con el usuario “Admin” y la contraseña “zabbix”.




Menú de aplicaciones
Installation - Chromium
Terminal - usuario@debi...
19:04
Installation
192.168.0.4/zabbix/setup.php
Apps
Debian.org
Latest News
Help
ZABBIX
Welcome
Check of pre-requisites
Configure DB connection
Zabbix server details
Pre-installation summary
Install
Welcome to
Zabbix 3.4
Back
Next step
Licensed under GPL v2
Zabbix 3.4.15. © 2001–2018, Zabbix SIA


Menú de aplicaciones
Installation - Chromium
Terminal - usuario@debi...
19:08
Installation
192.168.0.4/zabbix/setup.php
Apps
Debian.org
Latest News
Help
ZABBIX
Welcome
Check of pre-requisites
Configure DB connection
Zabbix server details
Pre-installation summary
Install
Check of pre-requisites
Current value
Required
PHP version 5.4.45-0+deb7u2 5.4.0 OK
PHP option "memory_limit" 128M 128M OK
PHP option "post_max_size" 16M 16M OK
PHP option "upload_max_filesize" 2M 2M OK
PHP option "max_execution_time" 300 300 OK
PHP option "max_input_time" 300 300 OK
PHP option "date.timezone" Europe/Madrid OK
PHP databases support MySQL OK
PHP bcmath on OK
PHP mbstring on OK
PHP option "mbstring.func_overload" off off OK
Back
Next step
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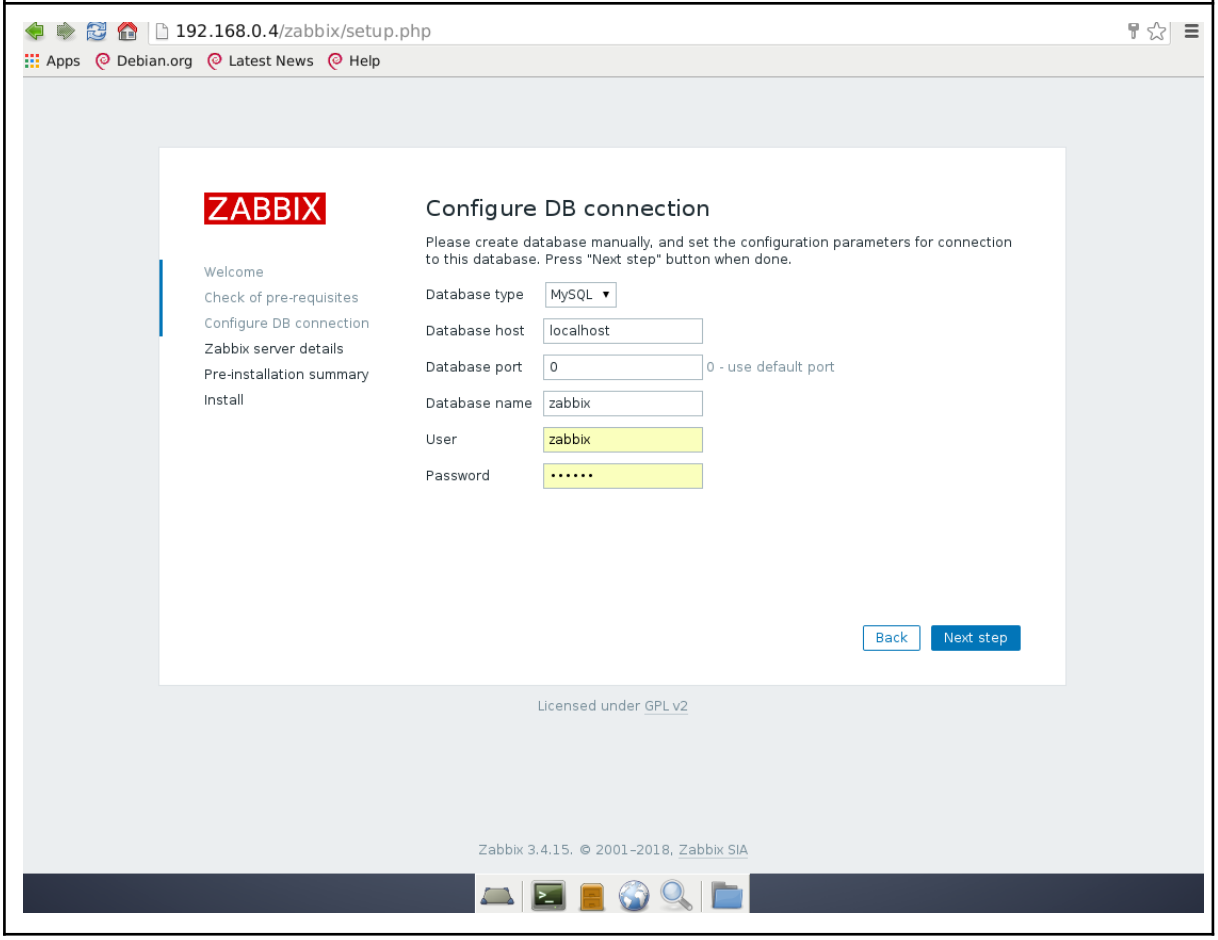
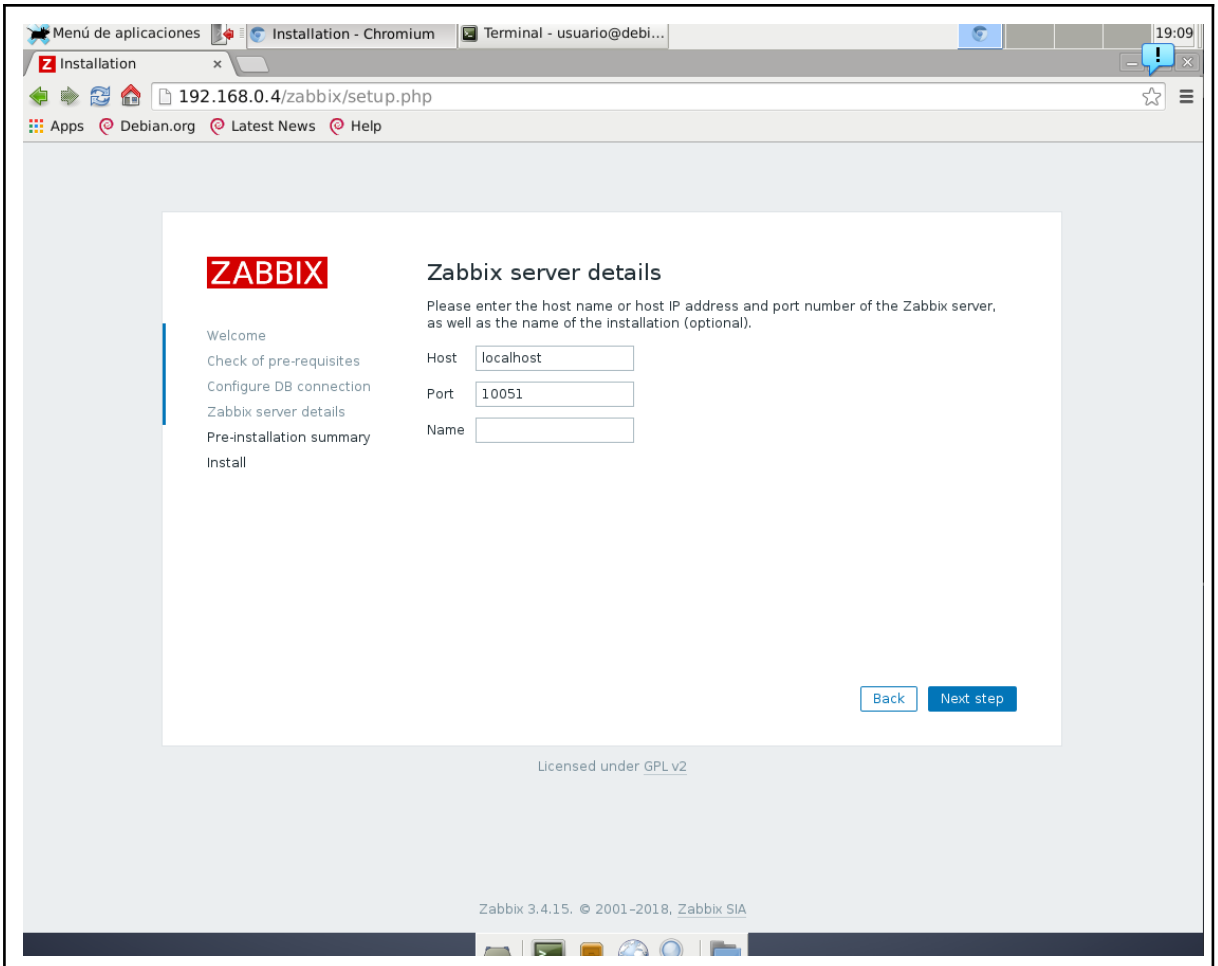
Zabbix 3.4.15. © 2001–2018, Zabbix SIA
CTRL DERECHA


192.168.0.4/zabbix/setup.php
Apps
Debian.org
Latest News
Help
ZABBIX
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 MySQL
Database host localhost
Database port 0 0 - use default port
Database name zabbix
User zabbix
Password ••••••
Back
Next step
Licensed under GPL v2
Zabbix 3.4.15. © 2001–2018, Zabbix SIA


Menú de aplicaciones
Installation - Chromium
Terminal - usuario@debi...
19:09
Installation
192.168.0.4/zabbix/setup.php
Apps
Debian.org
Latest News
Help
ZABBIX
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
localhost
Port
10051
Name
Back
Next step
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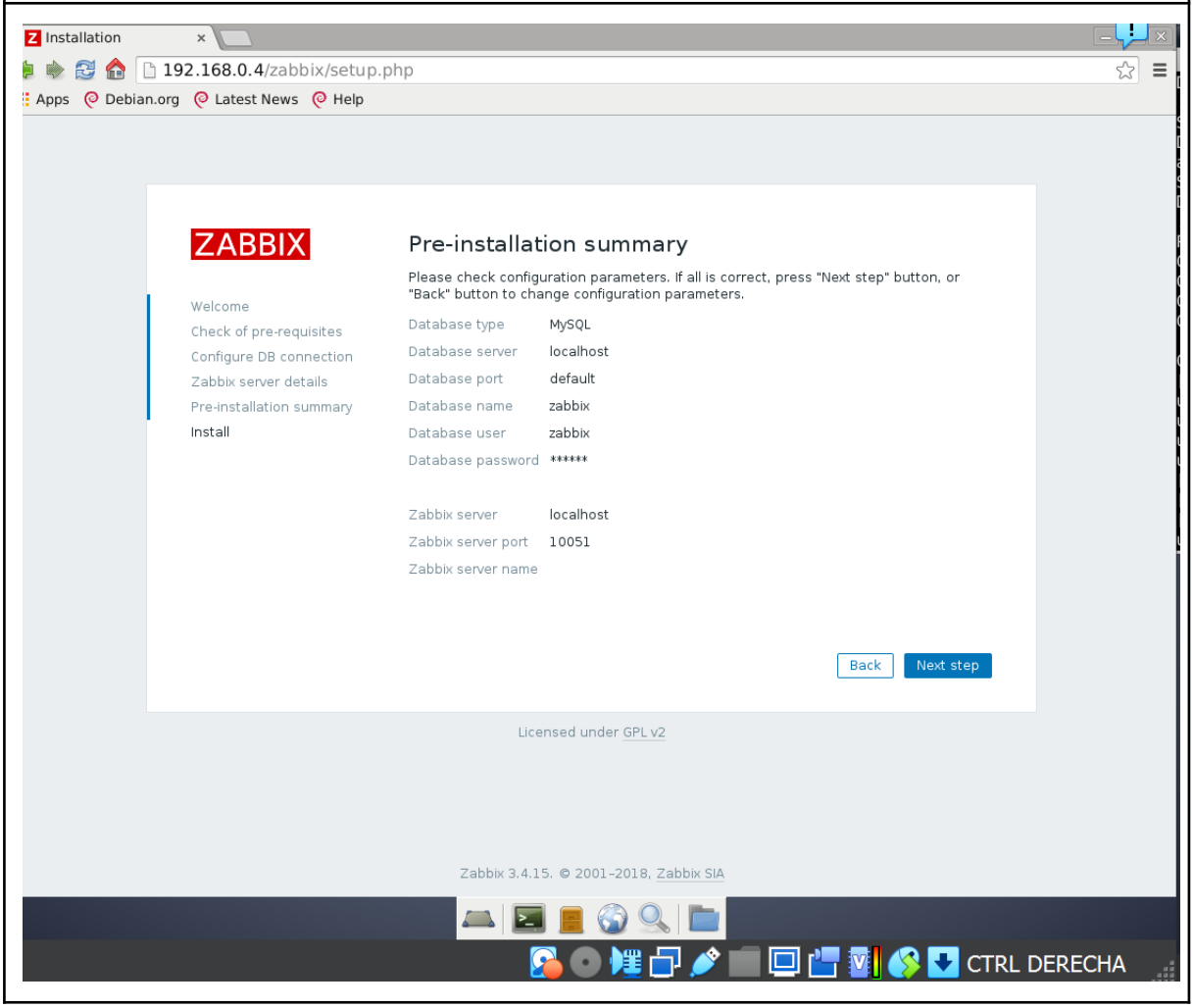
Installation
192.168.0.4/zabbix/setup.php
Apps
Debian.org
Latest News
Help
ZABBIX
Welcome
Check of pre-requisites
Configure DB connection
Zabbix server details
Pre-installation summary
Install
Pre-installation summary
Please check configuration parameters. If all is correct, press "Next step" button, or "Back" button to change configuration parameters.
Database type
MySQL
Database server
localhost
Database port
default
Database name
zabbix
Database user
zabbix
Database password
******
Zabbix server
localhost
Zabbix server port
10051
Zabbix server name
Back
Next step
Licensed under GPL v2
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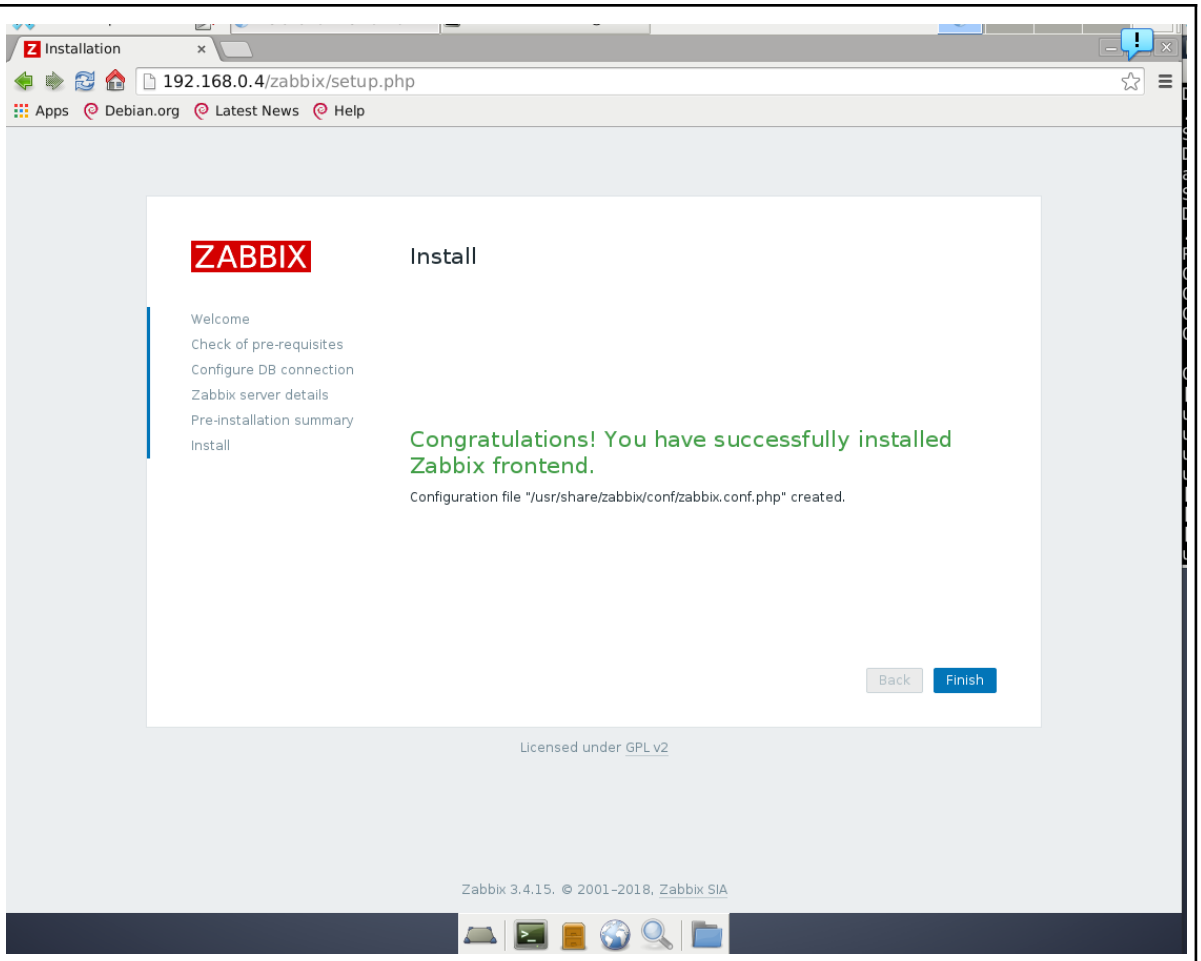
CTRL DERECHA


Installation
192.168.0.4/zabbix/setup.php
Apps
Debian.org
Latest News
Help
ZABBIX
Install
Welcome
Check of pre-requisites
Configure DB connection
Zabbix server details
Pre-installation summary
Install
Congratulations! You have successfully installed Zabbix frontend.
Configuration file "/usr/share/zabbix/conf/zabbix.conf.php" created.
Back
Finish
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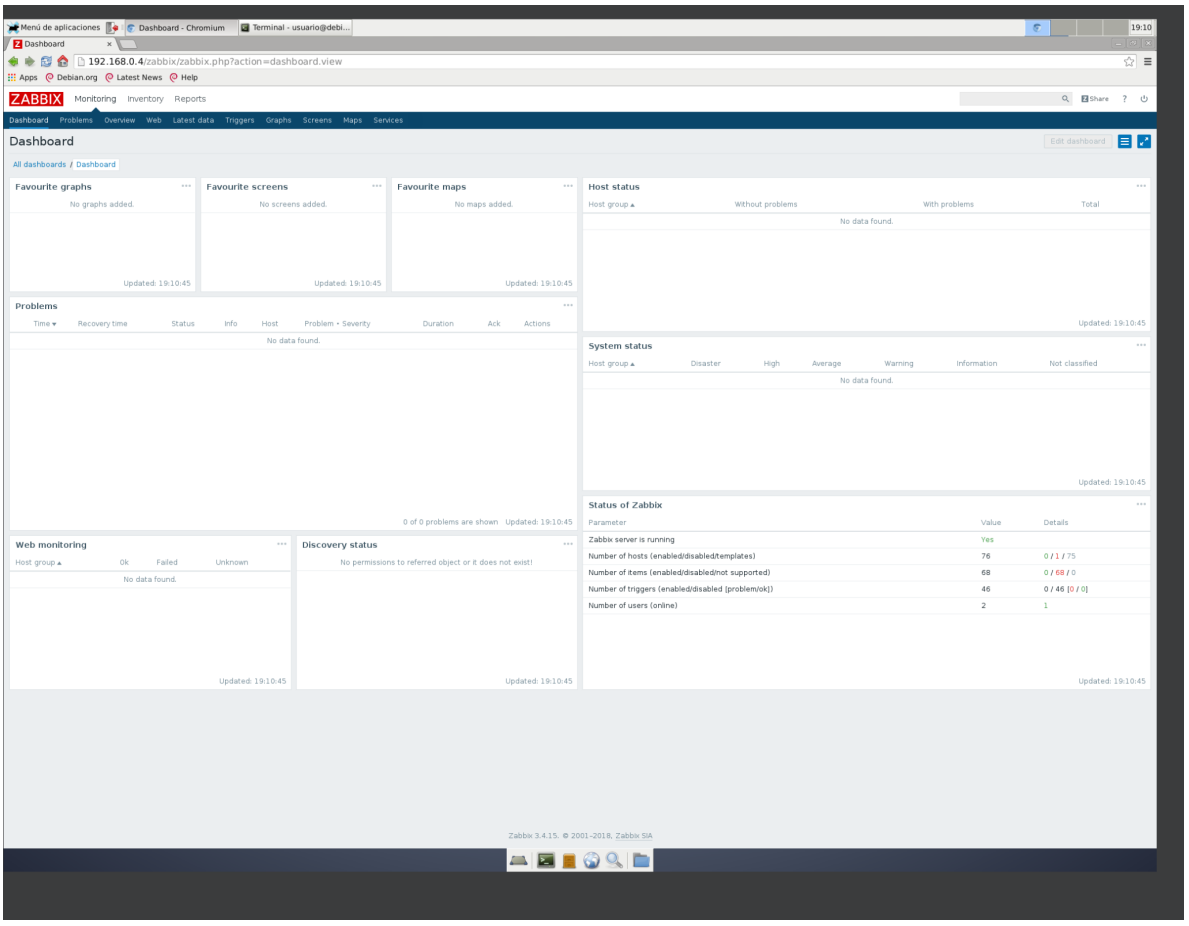
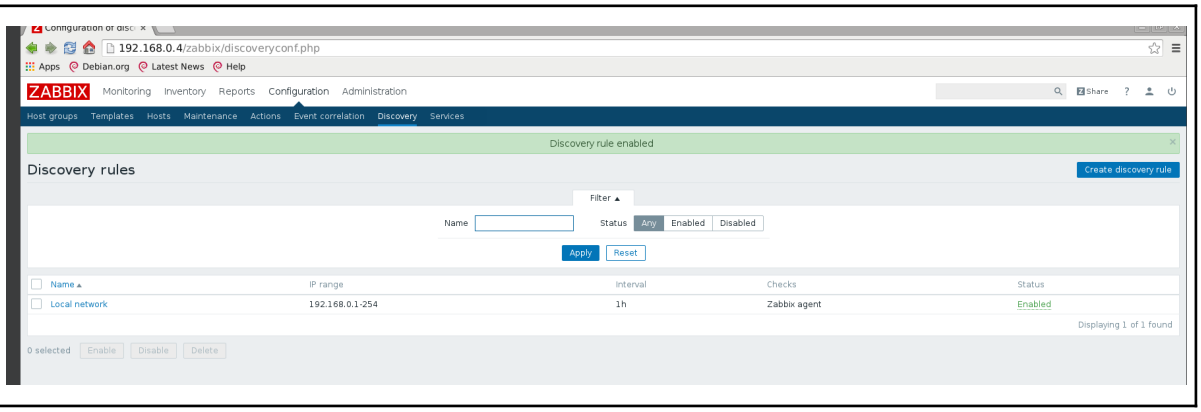

Dashboard - Chromium
Terminal - usuario@debi...
Dashboard
192.168.0.4/zabbix/zabbix.php?action=dashboard.view
ZABBIX
Monitoring
Inventory
Reports
Dashboard
Problems
Overview
Web
Latest data
Triggers
Graphs
Screens
Maps
Services
Favourite graphs
Favourite screens
Favourite maps
Host status
Problems
System status
Status of Zabbix
Web monitoring
Discovery status
Zabbix 3.4.15. © 2001–2018, Zabbix SIA

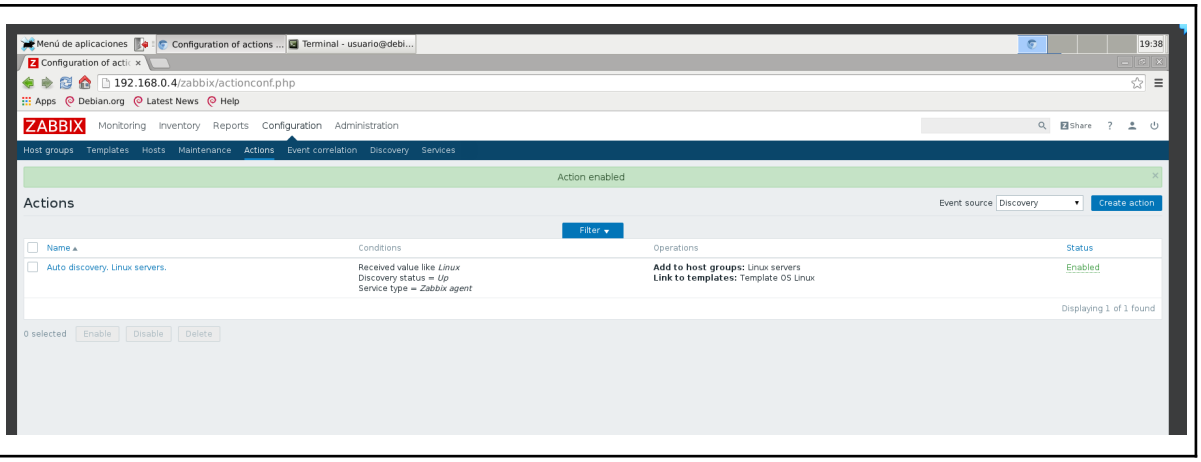
Descubrimiento automático y pruebas web

He tenido que cambiar el usuario y contraseña: *user: Admin* *psswd;zabbix*
mysql> update users set passwd=md5('zabbix') where alias='Admin';

En *Configuration → Discovery*, habilita la regla *Local network* pulsando en *Disabled*, que cambiará a *Enabled*.

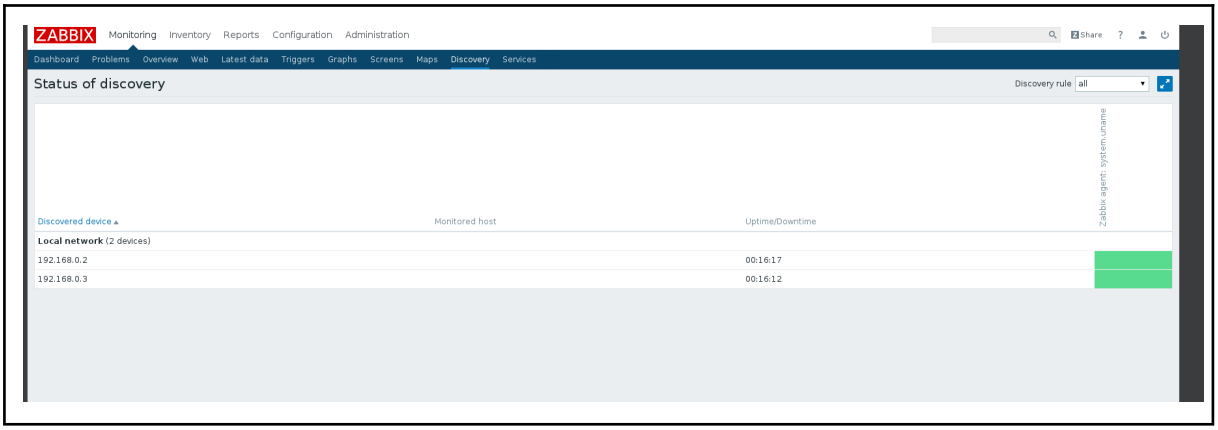


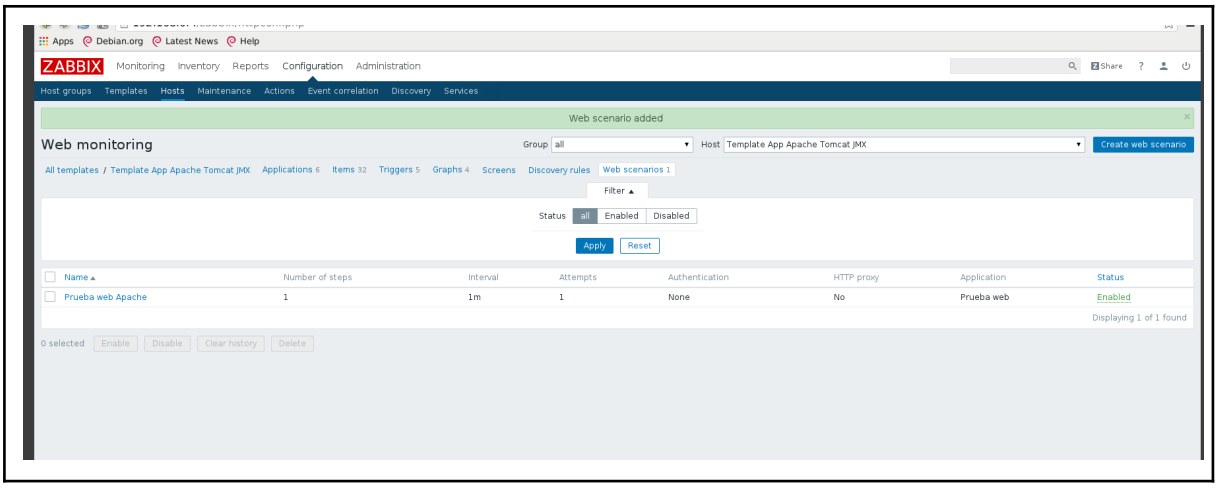
En *Configuration → Actions*, selecciona *Discovery* en *Event source* y habilita la acción *Auto discovery. Linux servers* pulsando en *Disabled*, que cambiará a *Enabled*.

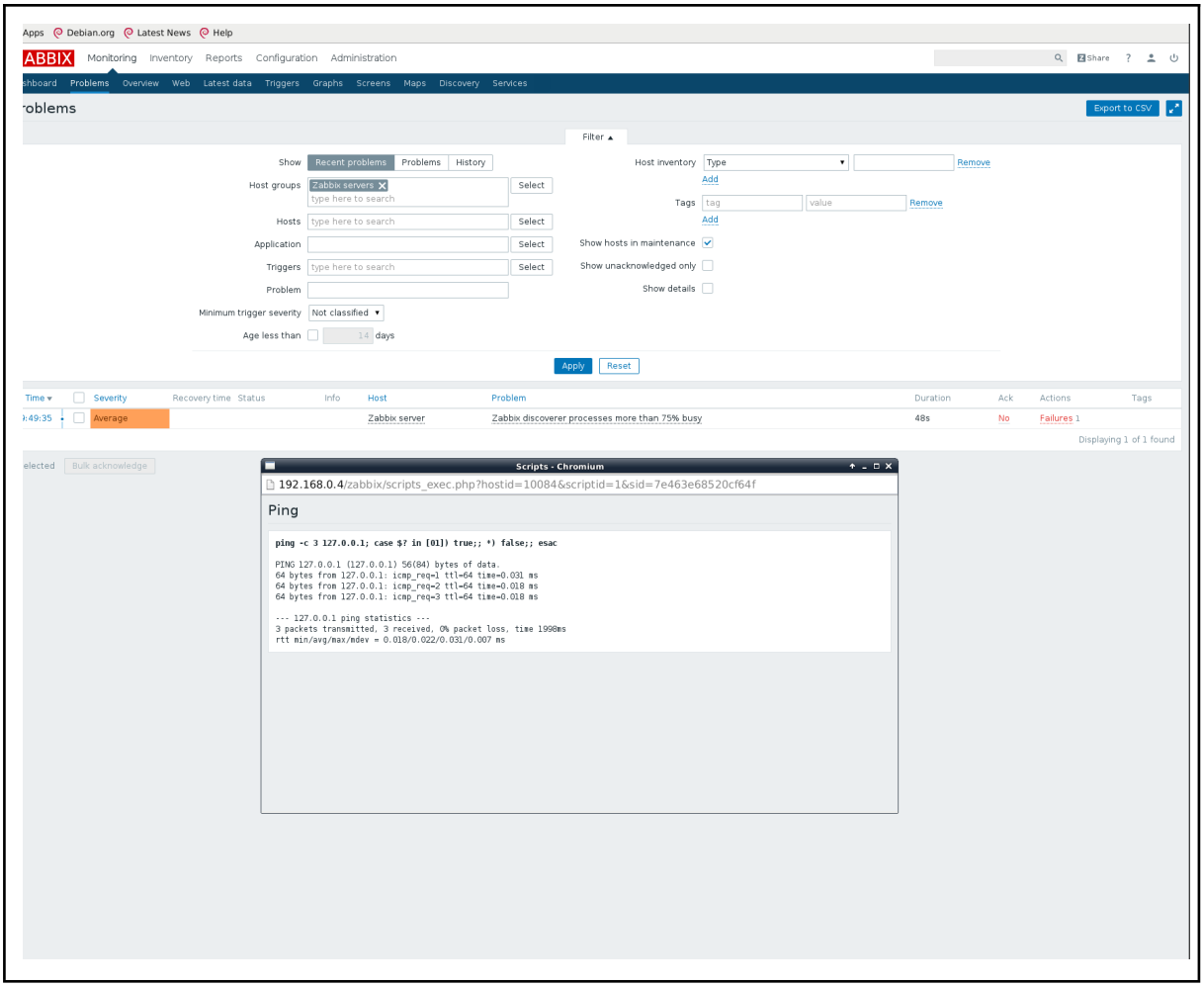


Comprueba que se descubren automáticamente las máquinas `apache` y `nginx`. Si no, prueba a reducir el intervalo de actualización en la regla *Local network*. También puedes comprobar si hay algún mensaje de error en el fichero de *log* `/var/log/zabbix/zabbix server.log`.

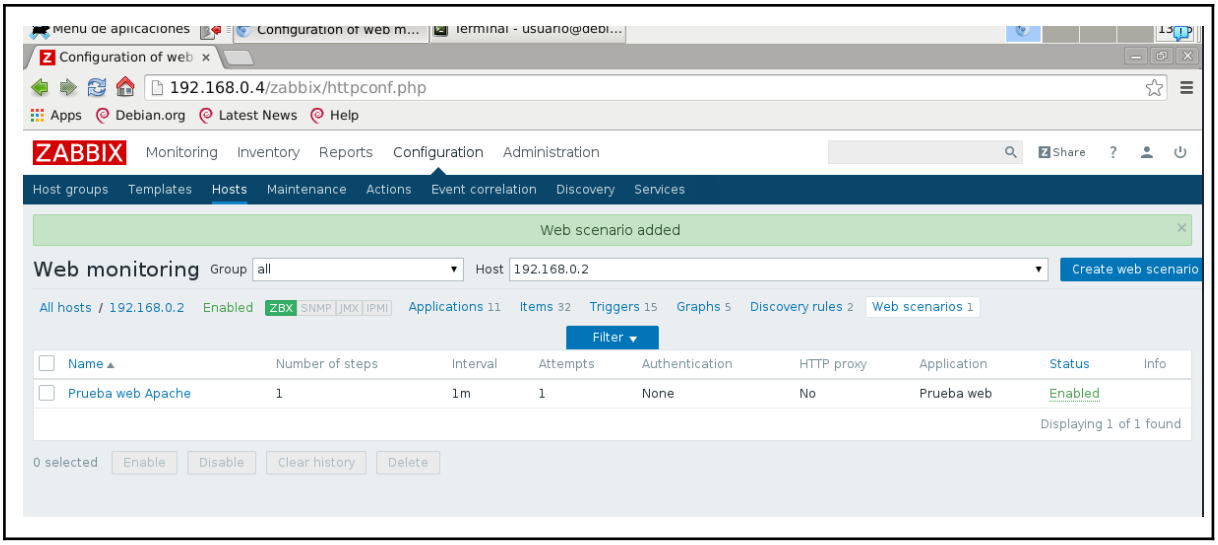
En *Configuration* → *Hosts*, pulsa *Web* en la fila correspondiente a `apache`. Pulsa en *Create scenario*. En el formulario, establece *Name* a "Prueba web Apache", *New application* a "Prueba web". Pulsa *Steps* y luego *Add*. En el formulario, establece *Name* a "index" y *URL* a "{HOST.IP}/index.html". Pulsa *Add* para añadir el paso y *Add* para añadir el escenario.

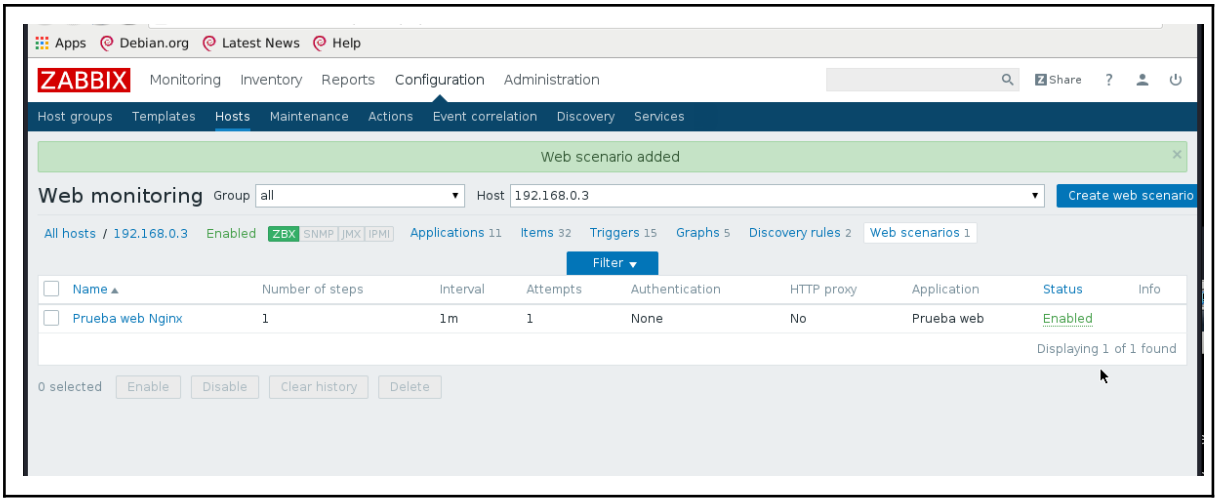






Repite el procedimiento anterior para `nginx`.



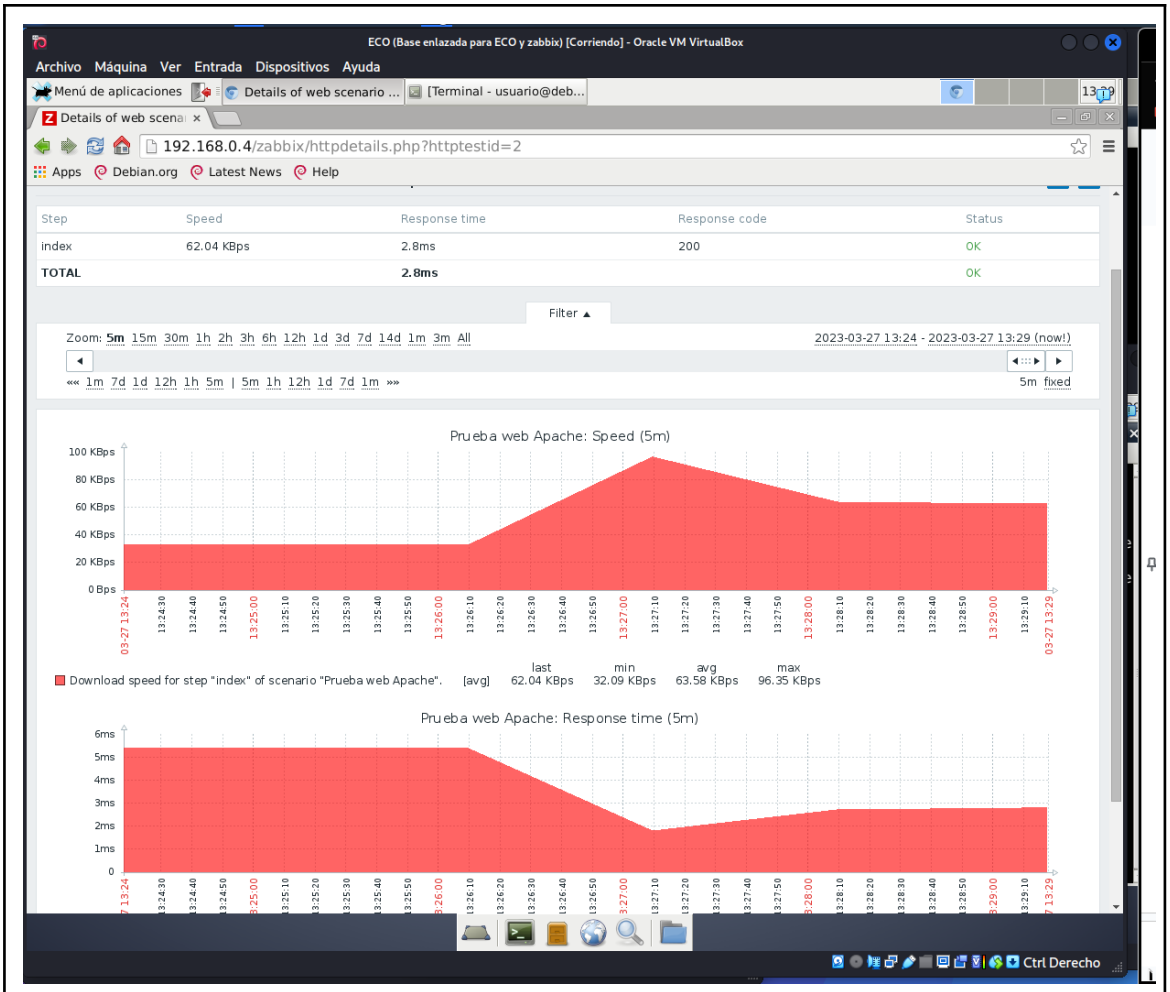


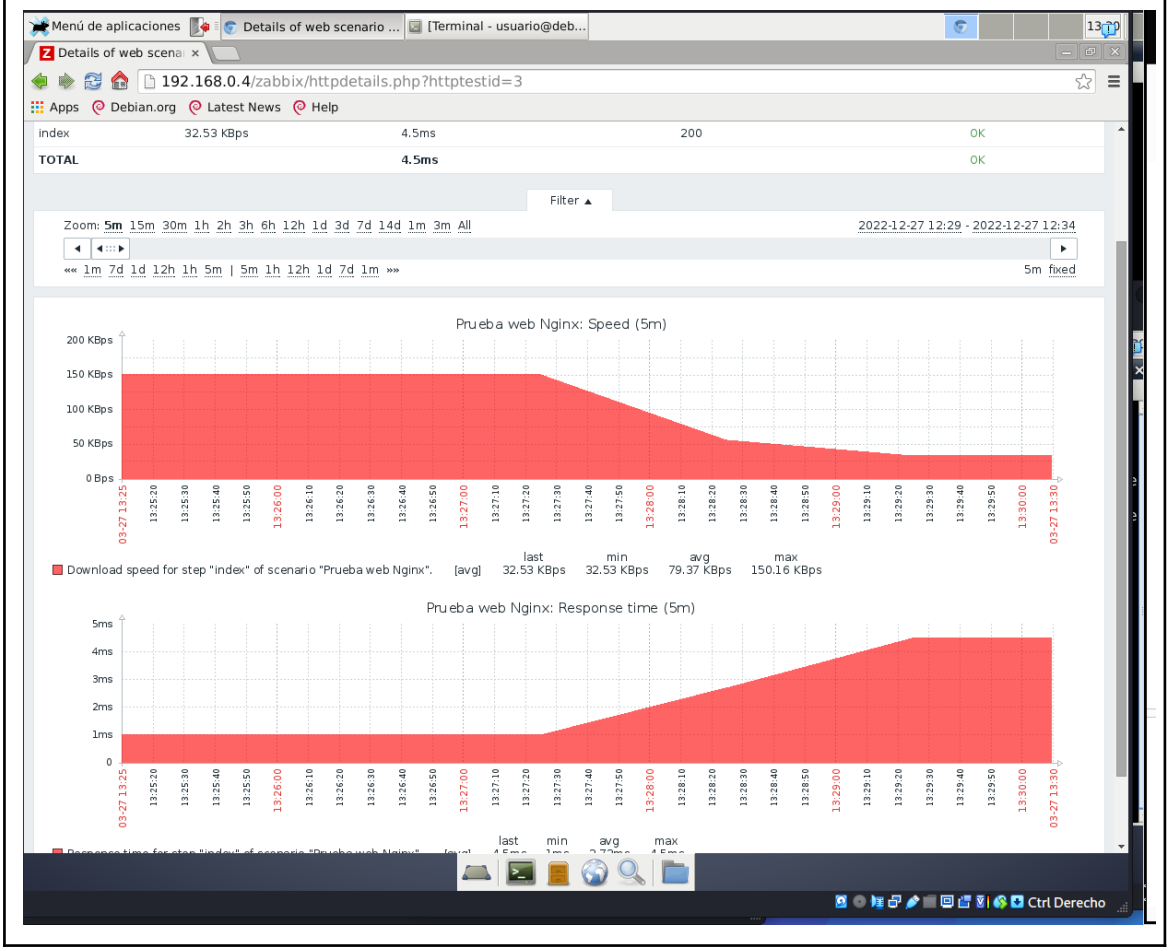
Observa los gráficos de monitorización de los sistemas y los resultados de las pruebas web en *Monitoring → Web*.

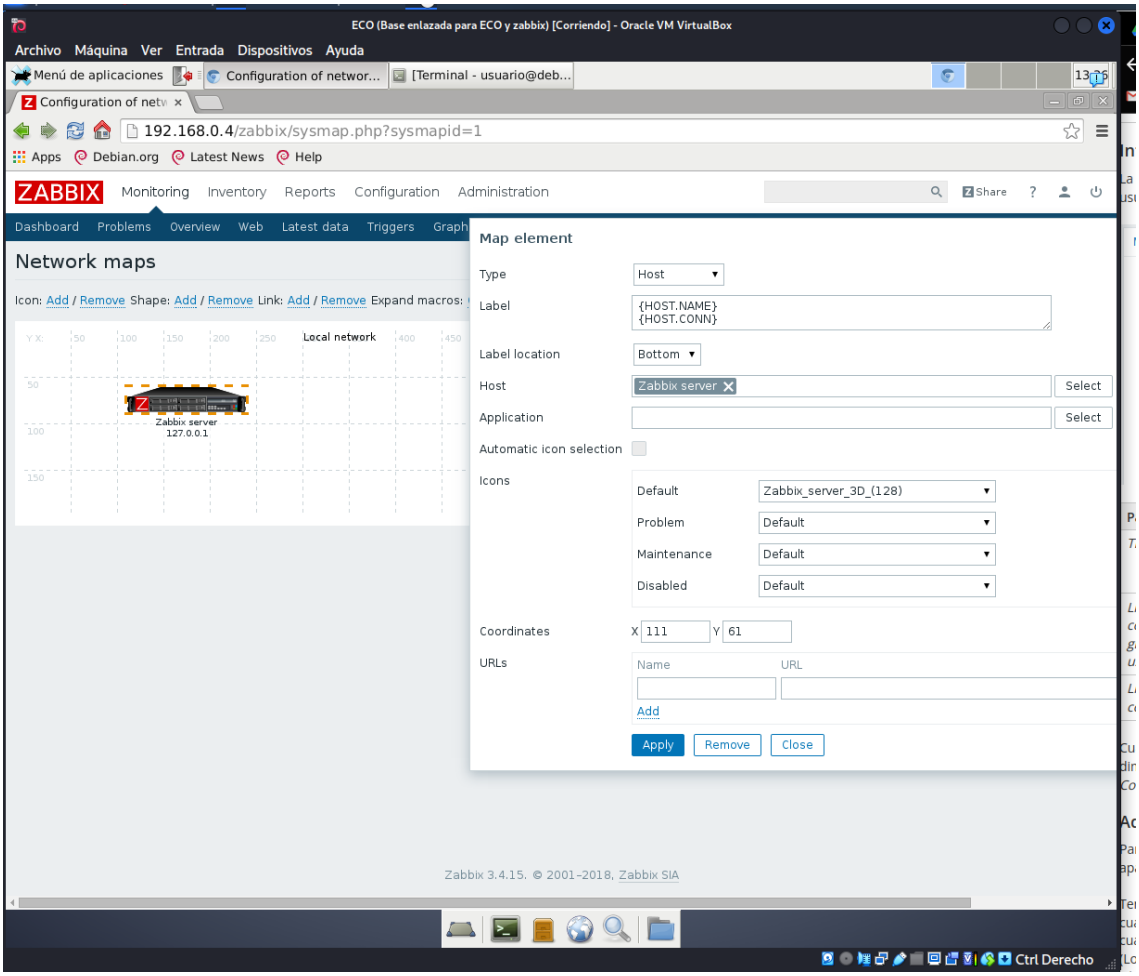
Copia varios gráficos o pantallas de Zabbix que te parezcan interesantes.

Para practicar más:

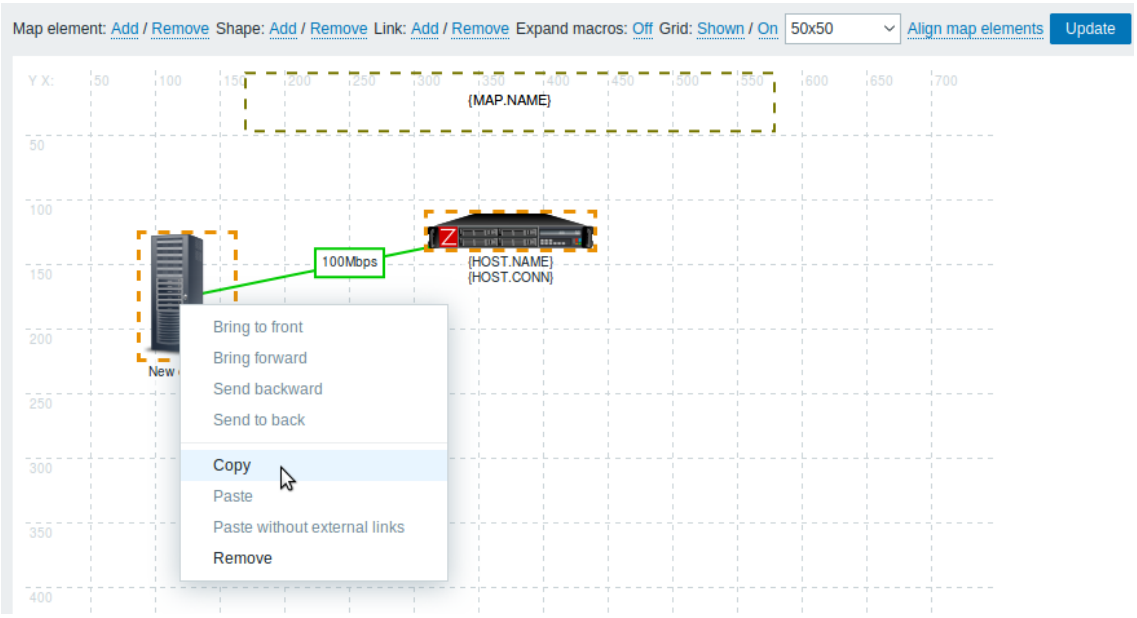
- Investiga otras funcionalidades de Zabbix, como la creación de mapas o pantallas.
- Prueba otros monitores de sistemas en red.


ECO (Base enlazada para ECO y zabbix) [Corriendo] - Oracle VM VirtualBox
Archivo Máquina Ver Entrada Dispositivos Ayuda
Menú de aplicaciones
Details of web scenario ...
[Terminal - usuario@deb...
Details of web scena
192.168.0.4/zabbix/httpdetails.php?httptestid=2
Apps
Debian.org
Latest News
Help
Step
Speed
Response time
Response code
Status
index
62.04 KBps
2.8ms
200
OK
TOTAL
2.8ms
OK
Filter
Zoom: 5m 15m 30m 1h 2h 3h 6h 12h 1d 3d 7d 14d 1m 3m All
2023-03-27 13:24 - 2023-03-27 13:29 (now!)
5m fixed
Prueba web Apache: Speed (5m)
100 KBps
80 KBps
60 KBps
40 KBps
20 KBps
0 Bps
last
min
avg
max
Download speed for step "index" of scenario "Prueba web Apache". [avg] 62.04 KBps 32.09 KBps 63.58 KBps 96.35 KBps
Prueba web Apache: Response time (5m)
6ms
5ms
4ms
3ms
2ms
1ms
0
Ctrl Derecho


Menú de aplicaciones
Details of web scenario ...
[Terminal - usuario@deb...
Details of web scena
192.168.0.4/zabbix/httpdetails.php?httptestid=3
Apps
Debian.org
Latest News
Help
index
32.53 KBps
4.5ms
200
OK
TOTAL
4.5ms
OK
Filter
Zoom: 5m 15m 30m 1h 2h 3h 6h 12h 1d 3d 7d 14d 1m 3m All
2022-12-27 12:29 - 2022-12-27 12:34
5m fixed
Prueba web Nginx: Speed (5m)
200 KBps
150 KBps
100 KBps
50 KBps
0 Bps
last
min
avg
max
Download speed for step "index" of scenario "Prueba web Nginx". [avg] 32.53 KBps 32.53 KBps 79.37 KBps 150.16 KBps
Prueba web Nginx: Response time (5m)
5ms
4ms
3ms
2ms
1ms
0
Ctrl Derecho



Se pueden crear algunos mapas como los de la siguiente imagen que aparece en la documentación.



https://www.zabbix.com/documentation/6.0/es/manual/config/visualization/maps/map