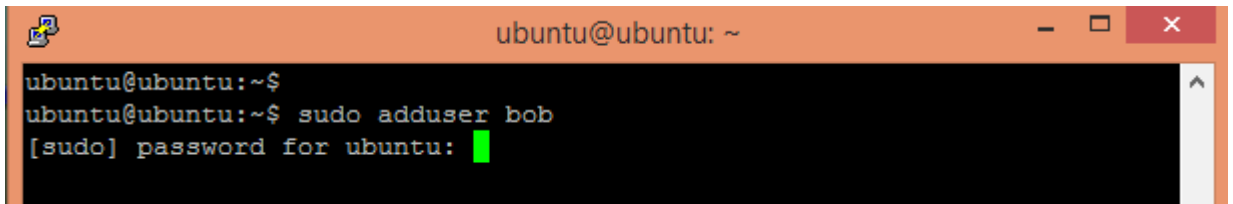
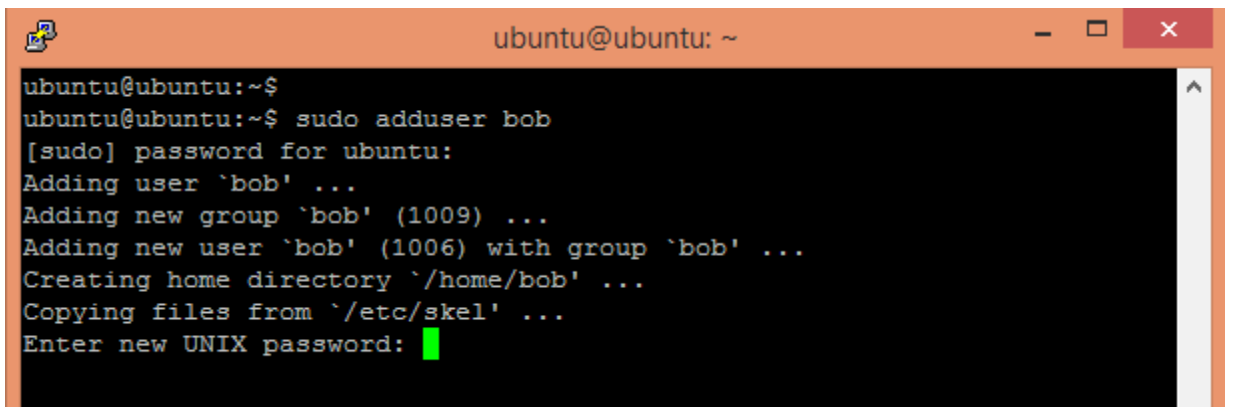


Chapter 1 - Managing Users and Groups



```
ubuntu@ubuntu: ~  
ubuntu@ubuntu:~$  
ubuntu@ubuntu:~$ sudo adduser bob  
[sudo] password for ubuntu: █
```



```
ubuntu@ubuntu: ~  
ubuntu@ubuntu:~$  
ubuntu@ubuntu:~$ sudo adduser bob  
[sudo] password for ubuntu:  
Adding user `bob' ...  
Adding new group `bob' (1009) ...  
Adding new user `bob' (1006) with group `bob' ...  
Creating home directory `/home/bob' ...  
Copying files from `/etc/skel' ...  
Enter new UNIX password: █
```

```
ubuntu@ubuntu: ~  
ubuntu@ubuntu:~$  
ubuntu@ubuntu:~$ sudo adduser bob  
[sudo] password for ubuntu:  
Adding user `bob' ...  
Adding new group `bob' (1009) ...  
Adding new user `bob' (1006) with group `bob' ...  
Creating home directory `/home/bob' ...  
Copying files from `/etc/skel' ...  
Enter new UNIX password:  
Retype new UNIX password: █
```

```
ubuntu@ubuntu: ~  
ubuntu@ubuntu:~$  
ubuntu@ubuntu:~$ sudo adduser bob  
[sudo] password for ubuntu:  
Adding user `bob' ...  
Adding new group `bob' (1009) ...  
Adding new user `bob' (1006) with group `bob' ...  
Creating home directory `/home/bob' ...  
Copying files from `/etc/skel' ...  
Enter new UNIX password:  
Retype new UNIX password:  
passwd: password updated successfully  
Changing the user information for bob  
Enter the new value, or press ENTER for the default  
  Full Name []: Bob  
  Room Number []:  
  Work Phone []:  
  Home Phone []:  
  Other []:  
Is the information correct? [Y/n] █
```

```
ubuntu@ubuntu: ~  
ubuntu@ubuntu:~$ tail -n 2 /etc/passwd  
user2:x:1005:1007:user2,,,:/home/user2:/bin/bash  
bob:x:1006:1009:Bob,,,:/home/bob:/bin/bash  
ubuntu@ubuntu:~$ █
```

```
GNU nano 2.2.6 File: users.txt  
alice:password:::Alice:/home/alice:/bin/bash  
bob:password:::Bob:/home/bob:/bin/bash  
  
^G Get Help ^O WriteOut ^R Read File ^Y Prev Page ^K Cut Text ^C Cur Pos  
^X Exit ^J Justify ^W Where Is ^V Next Page ^U UnCut Tex ^T To Spell
```

```
ubuntu@ubuntu:~$ tail -n 4 /etc/passwd  
user1:x:1004:1006:user1,,,:/home/user1:/bin/bash  
user2:x:1005:1007:user2,,,:/home/user2:/bin/bash  
alice:x:1006:1009:Alice:/home/alice:/bin/bash  
bob:x:1007:1010:Bob:/home/bob:/bin/bash  
ubuntu@ubuntu:~$ █
```

```
ubuntu@ubuntu:~$ sudo deluser --remove-home bob
[sudo] password for ubuntu:
Looking for files to backup/remove ...
Removing files ...
Removing user `bob' ...
Warning: group `bob' has no more members.
Done.
ubuntu@ubuntu:~$ █
```

```
user2@ubuntu:/home/user1$
user2@ubuntu:/home/user1$ echo "hello again" > documents/file.txt
bash: documents/file.txt: Permission denied
user2@ubuntu:/home/user1$ █
```

```
user1@ubuntu:~$ chgrp -R editor documents/
user1@ubuntu:~$ ls -l
total 4
drwxrwxr-x 2 user1 editor 4096 Jun 26 15:36 documents
user1@ubuntu:~$ █
```

```
user1@ubuntu:~$ su user2
Password:
user2@ubuntu:/home/user1$ echo "hello again" > documents/file.txt
user2@ubuntu:/home/user1$ █
```

```
user1@ubuntu:~$ echo 'echo "hello world!!!"' > hello.sh
user1@ubuntu:~$ ls -l
total 8
drwxrwxr-x 2 user1 editor 4096 Jun 26 15:36 documents
-rw-rw-r-- 1 user1 user1   22 Jun 26 15:59 hello.sh
user1@ubuntu:~$ ./hello.sh
bash: ./hello.sh: Permission denied
```

```
user1@ubuntu:~$ chmod u+x hello.sh
user1@ubuntu:~$ ls -l
total 8
drwxrwxr-x 2 user1 editor 4096 Jun 26 15:36 documents
-rwxrw-r-- 1 user1 user1   23 Jun 26 15:54 hello.sh
user1@ubuntu:~$ █
```

```
user1@ubuntu:~$ ./hello.sh
hello world!!!
user1@ubuntu:~$ █
```

```
user1@ubuntu:~$ chmod +t documents/
user1@ubuntu:~$ ls -l
total 4
drwxrwxr-t 2 user1 editor 4096 Jun 26 15:36 documents
user1@ubuntu:~$ su user2
Password:
user2@ubuntu:/home/user1$ rm documents/file.txt
rm: cannot remove 'documents/file.txt': Operation not permitted
user2@ubuntu:/home/user1$ █
```

```
user2@ubuntu:/home/user1$ ulimit -a
core file size          (blocks, -c) 0
data seg size          (kbytes, -d) unlimited
scheduling priority    (-e) 0
file size              (blocks, -f) unlimited
pending signals        (-i) 3887
max locked memory      (kbytes, -l) 64
max memory size        (kbytes, -m) unlimited
open files             (-n) 1024
pipe size              (512 bytes, -p) 8
POSIX message queues   (bytes, -q) 819200
real-time priority     (-r) 0
stack size             (kbytes, -s) 8192
cpu time               (seconds, -t) unlimited
max user processes     (-u) 3887
virtual memory         (kbytes, -v) unlimited
file locks             (-x) unlimited
```

```
user1@ubuntu:~$ ssh localhost
The authenticity of host 'localhost (:::1)' can't be established.
ECDSA key fingerprint is c7:1c:46:a4:1a:9f:4a:3b:81:df:a8:3c:ef:89:a1:59.
Are you sure you want to continue connecting (yes/no)?
```

```
ubuntu@ubuntu:~$ cat .ssh/id_rsa.pub
ssh-rsa AAAAB3NzaC1yc2EAAAADAQABAAQDJEA0wVaT0mhE+PTjE0N1YAs3QG0UdyKdT8vNwMhVT
3fAHYwg5ka3Lo5dS9tHcio6kWINrbyjD3cBoAnCwcvGOY3YDB1Lf4IAm3Re10g/MvJECcd99WuAvNCk0
knnqJ/LVJk6W7YSOHAV1X+Q8HaVbLijWYBjNnZNdsYAFM4Hh91PMCn4FpuqfLW+EzXO3xDoiGdqHGuc
stuSkpaej+ZDteVX4s4hMr/XlDf38y7rDzdy9EzI2iDA9AMohxWEKM2rpcLhP3YAuNi4m+Ueef+wz1Cx
YJmfoSQuP1B95/1931Ne/UnOESHINqlHadmaPbreVGF9JSJv4Fj0btUBPEAH ubuntu@ubuntu
```

Chapter 2 - Networking

```
ubuntu@ubuntu:~$ sudo ufw enable
Firewall is active and enabled on system startup
ubuntu@ubuntu:~$ _
```

```
ubuntu@ubuntu:~$ sudo ufw status verbose
Status: active
Logging: on (low)
Default: deny (incoming), allow (outgoing), disabled (routed)
New profiles: skip
```

To	Action	From
---	-----	----
22/tcp	ALLOW IN	Anywhere
21/tcp	DENY IN	Anywhere
80/tcp	ALLOW IN	Anywhere
22/tcp (v6)	ALLOW IN	Anywhere (v6)
21/tcp (v6)	DENY IN	Anywhere (v6)
80/tcp (v6)	ALLOW IN	Anywhere (v6)

```
ubuntu@ubuntu:~$ sudo ufw status numbered
Status: active
```

To	Action	From
---	-----	----
[1] 22/tcp	ALLOW IN	Anywhere
[2] 21/tcp	DENY IN	Anywhere
[3] 80/tcp	ALLOW IN	Anywhere
[4] 22/tcp (v6)	ALLOW IN	Anywhere (v6)
[5] 21/tcp (v6)	DENY IN	Anywhere (v6)
[6] 80/tcp (v6)	ALLOW IN	Anywhere (v6)

```
# The DEFAULT allows a global definition of the options. They can be overridden
# in each jail afterwards.
```

```
[DEFAULT]
ignoreip = 127.0.0.1/8
bantime = 600
findtime = 600
maxretry = 3
```

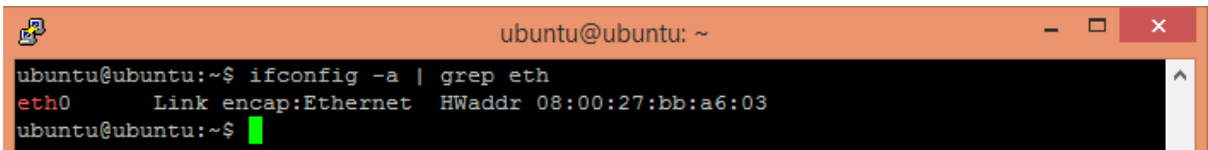
```
[ssh]

enabled = true
port = ssh
filter = sshd
logpath = /var/log/auth.log
maxretry = 6
```

```
udaysc: ~ $ sudo iptables -S
-P INPUT ACCEPT
-P FORWARD ACCEPT
-P OUTPUT ACCEPT
-N fail2ban-ssh
-A INPUT -p tcp -m multiport --dports 22 -j fail2ban-ssh
-A fail2ban-ssh -s 61.82.71.252/32 -j REJECT --reject-with icmp-port-unreachable
-A fail2ban-ssh -j RETURN
```



```
uadaysc: ~ $ sudo iptables -S
-P INPUT ACCEPT
-P FORWARD ACCEPT
-P OUTPUT ACCEPT
-N fail2ban-ssh
-A INPUT -p tcp -m multiport --dports 22 -j fail2ban-ssh
-A fail2ban-ssh -s 12.166.225.156/32 -j REJECT --reject-with icmp-port-unreachab
le
-A fail2ban-ssh -j RETURN
```

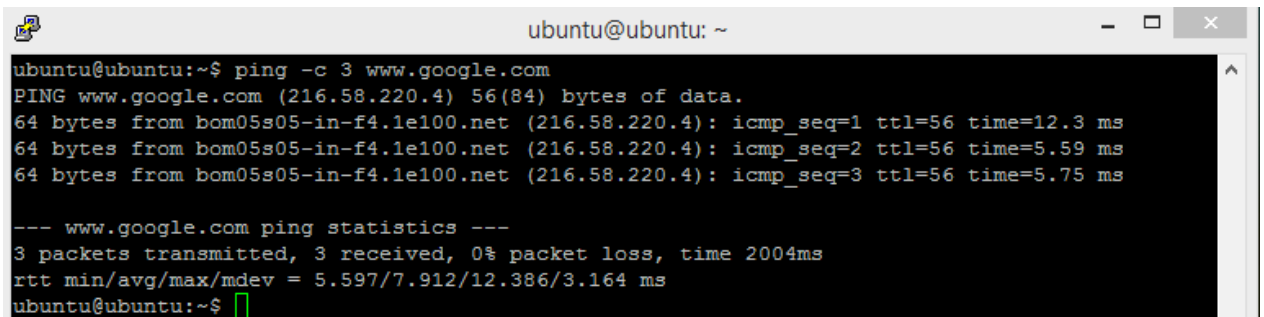


```
ubuntu@ubuntu: ~
ubuntu@ubuntu:~$ ifconfig -a | grep eth
eth0      Link encap:Ethernet  HWaddr 08:00:27:bb:a6:03
ubuntu@ubuntu:~$
```

```
# The loopback network interface
auto lo
iface lo inet loopback

# The primary network interface
auto eth0
iface eth0 inet dhcp

~
```



```
ubuntu@ubuntu: ~
ubuntu@ubuntu:~$ ping -c 3 www.google.com
PING www.google.com (216.58.220.4) 56(84) bytes of data.
64 bytes from bom05s05-in-f4.1e100.net (216.58.220.4): icmp_seq=1 ttl=56 time=12.3 ms
64 bytes from bom05s05-in-f4.1e100.net (216.58.220.4): icmp_seq=2 ttl=56 time=5.59 ms
64 bytes from bom05s05-in-f4.1e100.net (216.58.220.4): icmp_seq=3 ttl=56 time=5.75 ms

--- www.google.com ping statistics ---
3 packets transmitted, 3 received, 0% packet loss, time 2004ms
rtt min/avg/max/mdev = 5.597/7.912/12.386/3.164 ms
ubuntu@ubuntu:~$
```

```
:: Query time: 268 msec
:: SERVER: 10.0.2.53#53(10.0.2.53)
:: WHEN: Tue Jul 28 10:17:10 IST 2015
:: MSG SIZE rcvd: 270
```

```
:: Query time: 29 msec
:: SERVER: 10.0.2.53#53(10.0.2.53)
:: WHEN: Tue Jul 28 10:20:11 IST 2015
:: MSG SIZE rcvd: 270
```

```
ubuntu@ns1:~$ cat /etc/bind/db.local
;
; BIND data file for local loopback interface
;
$TTL      604800
@         IN      SOA     localhost. root.localhost. (
                        2          ; Serial
                        604800     ; Refresh
                        86400      ; Retry
                        2419200    ; Expire
                        604800 )   ; Negative Cache TTL
;
@         IN      NS      localhost.
@         IN      A       127.0.0.1
@         IN      AAAA    ::1
```

```
ubuntu@ns1:~$ cat /etc/bind/zones/db.example.com
;
; BIND data file for local loopback interface
;
$TTL      604800
@         IN      SOA     example.com. root.example.com. (
                        3          ; Serial
                        604800     ; Refresh
                        86400      ; Retry
                        2419200    ; Expire
                        604800 )   ; Negative Cache TTL
;
@         IN      NS      ns.example.com.
@         IN      A       10.0.2.53
@         IN      AAAA    ::1
NS        IN      A       10.0.2.53
host1     IN      A       10.0.2.58
host2     IN      A       10.0.2.55
```

```
ubuntu@ns1:~$ cat /etc/bind/db.127
;
; BIND reverse data file for local loopback interface
;
$TTL      604800
@         IN      SOA     localhost. root.localhost. (
                        1          ; Serial
                        604800     ; Refresh
                        86400      ; Retry
                        2419200    ; Expire
                        604800 )   ; Negative Cache TTL
;
@         IN      NS      localhost.
1.0.0     IN      PTR     localhost.
```

```
ubuntu@ns1:~$ cat /etc/bind/zones/db.10
;
; BIND reverse data file for local loopback interface
;
$TTL      604800
@         IN      SOA      ns.example.com. root.ns.example.com. (
                        2          ; Serial
                        604800     ; Refresh
                        86400      ; Retry
                        2419200    ; Expire
                        604800 )   ; Negative Cache TTL
;
@         IN      NS       ns.
53        IN      PTR      ns.example.com.
58        IN      PTR      host1.example.com.
55        IN      PTR      host2.example.com.
```

```
ubuntu: ~ $ cat /etc/default/haproxy
# Set ENABLED to 1 if you want the init script to start haproxy.
ENABLED=1
# Add extra flags here.
#EXTRAOPTS="-de -m 16"
ubuntu: ~ $ █
```

```
defaults
    log      global
    mode     tcp
    option   tcplog
    option   dontlognull
    contimeout 5000
```

```
# provides UDP syslog reception
$ModLoad imudp
$UDPServerRun 514
```

```
ubuntu@ubuntu:~$ dmesg | grep eth
[  2.667415] e1000 0000:00:03:0 eth0: (PCI:33MHz:32-bit) 08:00:27:bb:a6:03
[  2.672249] e1000 0000:00:03:0 eth0: Intel(R) PRO/1000 Network Connection
[ 12.592892] IPv6: ADDRCONF(NETDEV_UP): eth0: link is not ready
[ 12.593695] e1000: eth0 NIC Link is Up 1000 Mbps Full Duplex, Flow Control: R
X
[ 12.605255] IPv6: ADDRCONF(NETDEV_CHANGE): eth0: link becomes ready
```

```
ubuntu@ubuntu:~$ sudo mii-tool
[sudo] password for ubuntu:
eth0: no autonegotiation, 1000baseT-FD flow-control, link ok
ubuntu@ubuntu:~$ _
```

```
ubuntu@ubuntu:~$ ifconfig eth0
eth0      Link encap:Ethernet  HWaddr 08:00:27:bb:a6:03
          inet addr:10.0.2.15  Bcast:10.0.2.255  Mask:255.255.255.0
          inet6 addr: fe80::a00:27ff:febb:a603/64  Scope:Link
          UP BROADCAST RUNNING MULTICAST  MTU:1500  Metric:1
```

```
ubuntu@ubuntu:~$ cat /etc/network/interfaces
# The loopback network interface
auto lo
iface lo inet loopback

# The primary network interface
auto eth0
iface eth0 inet dhcp
```

```
ubuntu@ubuntu:~$ sudo dhclient -v
Internet Systems Consortium DHCP Client 4.2.4
Copyright 2004-2012 Internet Systems Consortium.
All rights reserved.
For info, please visit https://www.isc.org/software/dhcp/

Listening on LPF/eth0/08:00:27:bb:a6:03
Sending on LPF/eth0/08:00:27:bb:a6:03
Sending on Socket/fallback
DHCPDISCOVER on eth0 to 255.255.255.255 port 67 interval 3 (xid=0x408c0d92)
DHCPREQUEST of 10.0.2.15 on eth0 to 255.255.255.255 port 67 (xid=0x408c0d92)
DHCPOFFER of 10.0.2.15 from 10.0.2.2
DHCPACK of 10.0.2.15 from 10.0.2.2
RTNETLINK answers: File exists
bound to 10.0.2.15 -- renewal in 40826 seconds.
```

```
ubuntu@ubuntu:~$ route -n
Kernel IP routing table
Destination Gateway Genmask Flags Metric Ref Use Iface
0.0.0.0 10.0.2.2 0.0.0.0 UG 0 0 0 eth0
10.0.2.0 0.0.0.0 255.255.255.0 U 0 0 0 eth0
```

```

ubuntu@ubuntu:~$ mtr -r -c 1 8.8.8.8
Start: Tue Jul 28 11:57:48 2015
HOST: ubuntu

```

	Loss%	Snt	Last	Avg	Best	Wrst	StDev
1. -- 10.0.2.2	0.0%	1	0.6	0.6	0.6	0.6	0.0
2. -- 192.168.0.1	0.0%	1	10.0	10.0	10.0	10.0	0.0
3. -- 78-212-119-111.mysipl.com	0.0%	1	5.0	5.0	5.0	5.0	0.0
4. -- 77-212-119-111.mysipl.com	0.0%	1	6.4	6.4	6.4	6.4	0.0
5. -- 157-134.87.183.mysipl.com	0.0%	1	7.9	7.9	7.9	7.9	0.0
6. -- 72.14.196.213	0.0%	1	5.7	5.7	5.7	5.7	0.0
7. -- 209.85.142.228	0.0%	1	6.1	6.1	6.1	6.1	0.0
8. -- 66.249.94.39	0.0%	1	34.1	34.1	34.1	34.1	0.0
9. -- 216.239.48.227	0.0%	1	58.7	58.7	58.7	58.7	0.0
10. -- 209.85.246.37	0.0%	1	67.5	67.5	67.5	67.5	0.0
11. -- ???	100.0	1	0.0	0.0	0.0	0.0	0.0
12. -- google-public-dns-a.google	0.0%	1	60.4	60.4	60.4	60.4	0.0

```

ubuntu@ubuntu:~$ nslookup www.ubuntu.com
Server:      192.168.0.1
Address:     192.168.0.1#53

Non-authoritative answer:
Name:   www.ubuntu.com
Address: 91.189.89.103

```

```

ubuntu@ubuntu:~$ ping -c 2 www.ubuntu.com
PING www.ubuntu.com (91.189.89.103) 56(84) bytes of data:
64 bytes from www-ubuntu-com.privet.canonical.com (91.189.89.103): icmp_seq=1 ttl=47 time=125 ms
64 bytes from www-ubuntu-com.privet.canonical.com (91.189.89.103): icmp_seq=2 ttl=47 time=128 ms

--- www.ubuntu.com ping statistics ---
2 packets transmitted, 2 received, 0% packet loss, time 1003ms
rtt min/avg/max/mdev = 125.001/126.741/128.481/1.740 ms

```

```
ubuntu@ubuntu:~$ sudo ufw status
Status: inactive
ubuntu@ubuntu:~$ _
```

```
ubuntu@ubuntu:~$ sudo ufw allow http/tcp
Rules updated
Rules updated (v6)
ubuntu@ubuntu:~$ _
```

```
ubuntu@ubuntu:~$ sudo ufw show added
Added user rules (see 'ufw status' for running firewall):
ufw allow 22/tcp
ufw deny 21/tcp
ufw allow 80/tcp
ubuntu@ubuntu:~$ _
```


Chapter 3 - Working with Web Servers

```
ubuntu@ubuntu:~$ cat /etc/apache2/sites-available/example.com.conf
<VirtualHost *:80>
    ServerName example.com
    ServerAlias www.example.com
    ServerAdmin webmaster@example.com
    DirectoryIndex index.php index.html
    DocumentRoot /var/www/example.com/public_html

    ErrorLog ${APACHE_LOG_DIR}/error.log
    CustomLog ${APACHE_LOG_DIR}/access.log combined
</VirtualHost>
```



```
ubuntu@ubuntu:~$ cat /etc/apache2/sites-available/example.com.conf
<VirtualHost *:80>
    ServerName example.com
    ServerAlias www.example.com
    ServerAdmin webmaster@example.com
    DirectoryIndex index.php index.html
    DocumentRoot /var/www/example.com/public_html


    ErrorLog ${APACHE_LOG_DIR}/error.log
    CustomLog ${APACHE_LOG_DIR}/access.log combined
</VirtualHost>

<VirtualHost *:443>
    ServerName example.com
    ServerAlias www.example.com
    ServerAdmin webmaster@example.com
    DirectoryIndex index.php index.html
    DocumentRoot /var/www/example.com/public_html

    SSLEngine on
    SSLCertificateFile /etc/apache2/ssl/ssl.crt
    SSLCertificateKeyFile /etc/apache2/ssl/ssl.key

    ErrorLog ${APACHE_LOG_DIR}/error.log
    CustomLog ${APACHE_LOG_DIR}/access.log combined
</VirtualHost>
```

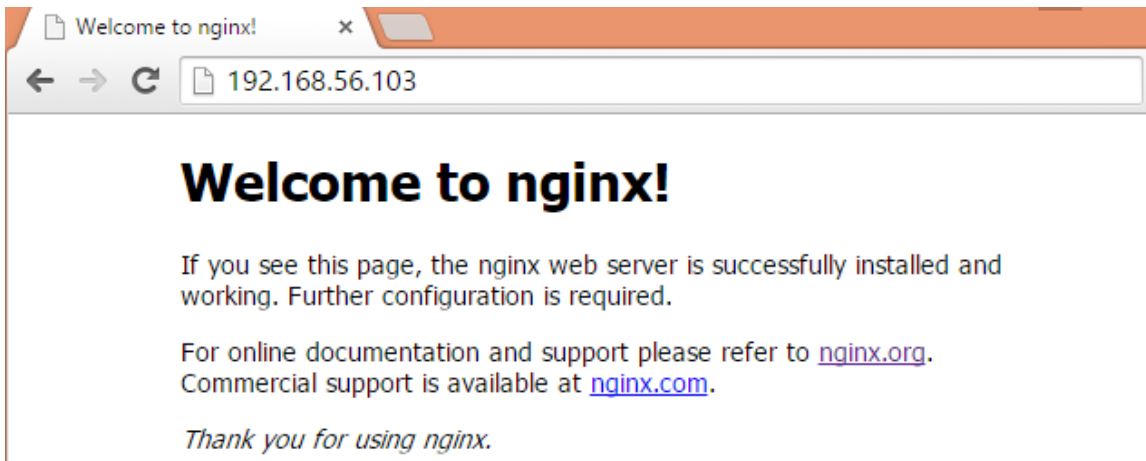
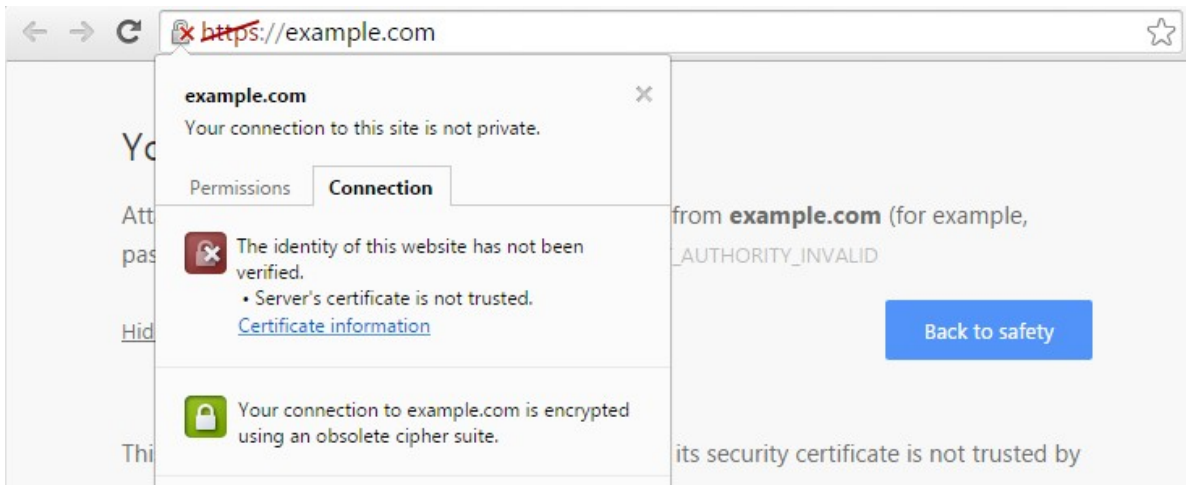
← → ↻  ~~https://~~example.com 



Your connection is not private

Attackers might be trying to steal your information from **example.com** (for example, passwords, messages, or credit cards). NET::ERR_CERT_AUTHORITY_INVALID

[Advanced](#) [Back to safety](#)



```

server {
    listen 80 default_server;
    listen [::]:80 default_server;
    root /var/www/html;
    index index.php index.html index.htm;
    server_name _;
    location / {
        try_files $uri $uri/ /index.php;
    }
    location ~ \.php$ {
        include fastcgi_params;
        fastcgi_param SCRIPT_FILENAME
        $document_root$fastcgi_script_name;
        fastcgi_param QUERY_STRING $query_string;
        fastcgi_pass unix:/var/run/php/php7.0-fpm.sock;
    }
}

```

PHP Version 7.0.4-7ubuntu2.1

System	Linux server-01 4.4.0-22-generic #40-Ubuntu SMP Thu May 12 22:03:46 U
Server API	FPM/FastCGI
Virtual Directory Support	disabled
Configuration File (php.ini) Path	/etc/php/7.0/fpm
Loaded Configuration File	/etc/php/7.0/fpm/php.ini
Scan this dir for additional .ini files	/etc/php/7.0/fpm/conf.d

```

ubuntu@ubuntu:~$ sudo netstat -pltn | egrep '(apache|nginx)'
tcp        0      0 127.0.0.1:8080      0.0.0.0:*           LISTEN      4753/apache2
tcp        0      0 0.0.0.0:80         0.0.0.0:*           LISTEN      3962/nginx
tcp6       0      0 :::80              :::*                 LISTEN      3962/nginx
tcp6       0      0 :::443             :::*                 LISTEN      4753/apache2
ubuntu@ubuntu:~$

```

```
ubuntu@ubuntu:~$ sudo nginx -t
nginx: the configuration file /etc/nginx/nginx.conf syntax is ok
nginx: configuration file /etc/nginx/nginx.conf test is successful
ubuntu@ubuntu:~$
```

```
Total transferred: 16739619 bytes
HTML transferred: 16700040 bytes
Requests per second: 117.96 [#/sec] (mean)
Time per request: 1695.491 [ms] (mean)
Time per request: 8.477 [ms] (mean, across all concurrent requests)
Transfer rate: 8170.87 [Kbytes/sec] received
```

```
Connection Times (ms)
              min  mean[+/-sd] median  max
Connect:      0   44  33.6      64    81
Processing:   44  815 363.9     983  1617
Waiting:      44  784 360.2     944  1592
Total:       122  859 340.5    1046  1675
```

```
ubuntu@ubuntu:~$ telnet 192.168.56.103 80
Trying 192.168.56.103...
Connected to 192.168.56.103.
Escape character is '^]'.

```

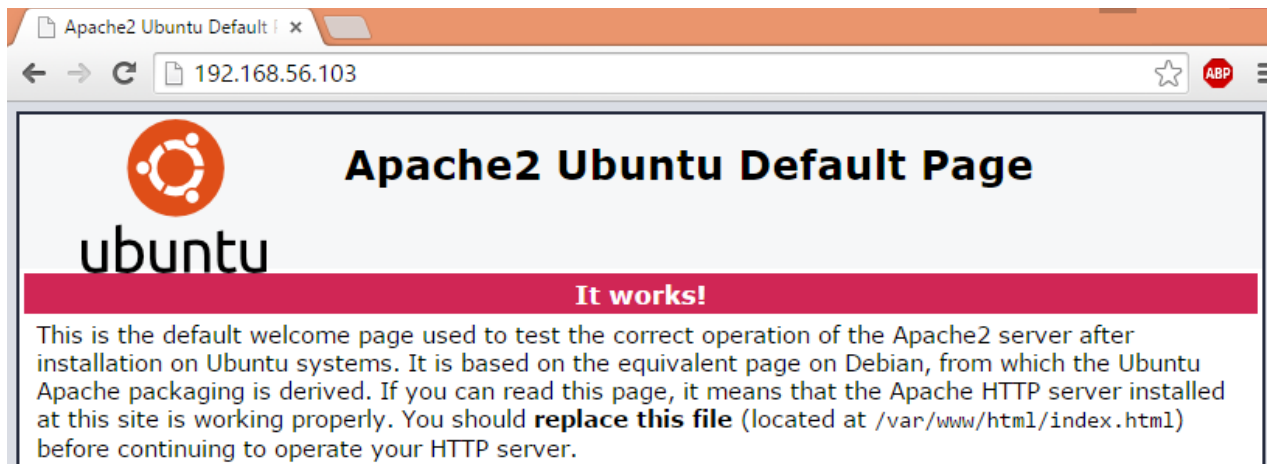
```
Active Internet connections (only servers)
Proto Recv-Q Send-Q Local Address           Foreign Address         State       PID/Program name
tcp        0      0 127.0.0.1:8080         0.0.0.0:*               LISTEN     1069/apache2
tcp        0      0 0.0.0.0:80            0.0.0.0:*               LISTEN     994/nginx
tcp        0      0 0.0.0.0:22            0.0.0.0:*               LISTEN     948/sshd
tcp6       0      0 :::22                  :::*                    LISTEN     948/sshd
```

```
ubuntu@ubuntu:~$ sudo apache2ctl -S
VirtualHost configuration:
127.0.0.1:8080 example.com (/etc/apache2/sites-enabled/example.com.conf:1)
ServerRoot: "/etc/apache2"
Main DocumentRoot: "/var/www"
Main ErrorLog: "/var/log/apache2/error.log"
Mutex default: dir="/var/lock/apache2" mechanism=fcntl
Mutex mpm-accept: using_defaults
Mutex watchdog-callback: using_defaults
Mutex ssl-stapling: using_defaults
Mutex ssl-cache: using_defaults
PidFile: "/var/run/apache2/apache2.pid"
Define: DUMP_VHOSTS
Define: DUMP_RUN_CFG
User: name="www-data" id=33
Group: name="www-data" id=33
```

```
ubuntu@ubuntu:~$ wget 127.0.0.1
--2015-08-12 13:03:37-- http://127.0.0.1/
Connecting to 127.0.0.1:80... connected.
HTTP request sent, awaiting response... 200 OK
Length: 31 [text/html]
Saving to: 'index.html.2'

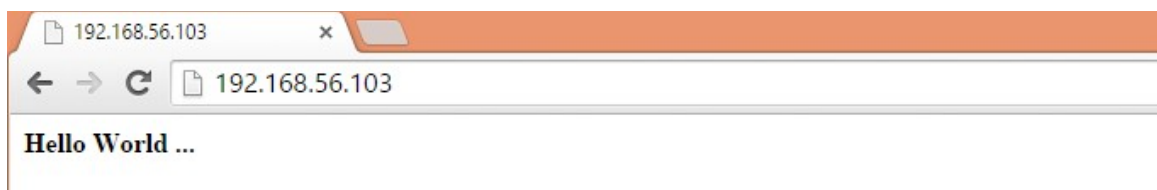
100%[=====>] 31 --.-K/s in 0s

2015-08-12 13:03:37 (2.59 MB/s) - 'index.html.2' saved [31/31]
```



```
ubuntu@ubuntu:/etc/apache2/sites-available$ cat example.com.conf
<VirtualHost *:80>
    ServerName example.com
    ServerAlias www.example.com
    ServerAdmin webmaster@example.com
    DocumentRoot /var/www/example.com/public_html

    ErrorLog ${APACHE_LOG_DIR}/error.log
    CustomLog ${APACHE_LOG_DIR}/access.log combined
</VirtualHost>
```



```
ubuntu@ubuntu:~$ php -v
PHP 7.0.4-7ubuntu2 (cli) ( NTS )
Copyright (c) 1997-2016 The PHP Group
Zend Engine v3.0.0, Copyright (c) 1998-2016 Zend Technologies
with Zend OPcache v7.0.6-dev, Copyright (c) 1999-2016, by Zend Technologies
```

```
ubuntu@ubuntu:~$ cat /etc/apache2/sites-available/example.com.conf
<VirtualHost *:80>
    ServerName example.com
    ServerAlias www.example.com
    ServerAdmin webmaster@example.com
    DirectoryIndex index.php index.html
    DocumentRoot /var/www/example.com/public_html
```

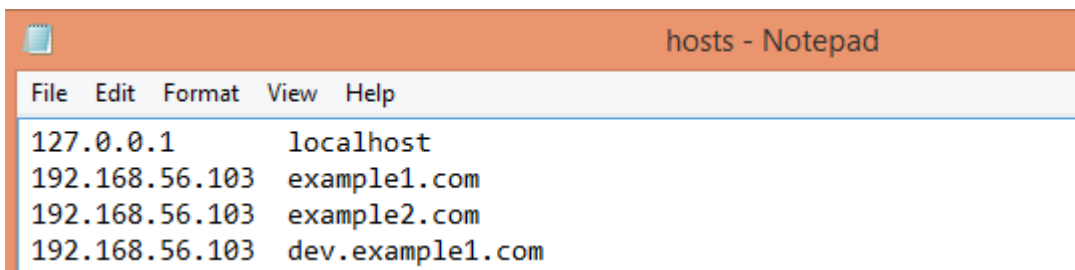
← → ↻ 192.168.56.103

PHP Version 7.0.4-7ubuntu2

System	Linux ubuntu 4.4.0-21-generic #37-Ubuntu SMP Mon Apr 18 18:33:37 UTC
Server API	Apache 2.0 Handler
Virtual Directory Support	disabled
Configuration File (php.ini) Path	/etc/php/7.0/apache2
Loaded Configuration File	/etc/php/7.0/apache2/php.ini



```
Creating config file /etc/php/7.0/apache2/php.ini with new version
Module mpm_event disabled.
Enabling module mpm_prefork.
apache2_switch_mpm Switch to prefork
apache2_invoke: Enable module php7.0
Setting up php7.0 (7.0.4-7ubuntu2) ...
ubuntu@ubuntu:~$
```

```
ubuntu@ubuntu:/var/www$ cat example1.com/public_html/index.html
<b>Hello from example1.com</b>
ubuntu@ubuntu:/var/www$ cat example2.com/public_html/index.html
<b>Hello from example2.com</b>
ubuntu@ubuntu:/var/www$ cat dev.example1.com/public_html/index.html
<b>Hello from developers at dev.example1.com</b>
```



hosts - Notepad

File	Edit	Format	View	Help
127.0.0.1			localhost	
192.168.56.103			example1.com	
192.168.56.103			example2.com	
192.168.56.103			dev.example1.com	



192.168.56.103 x

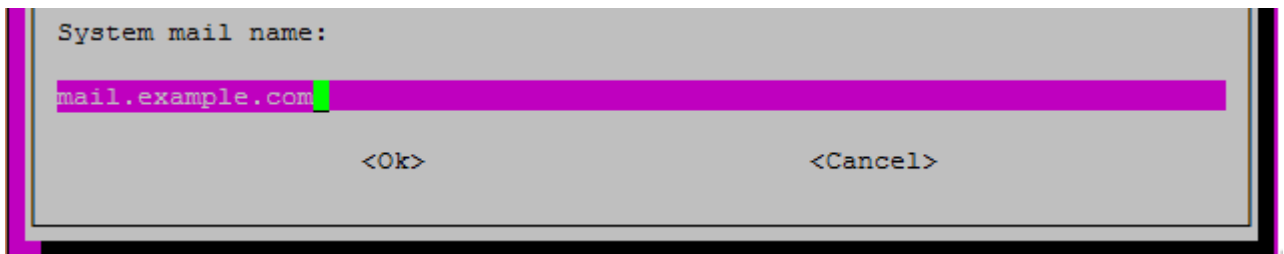
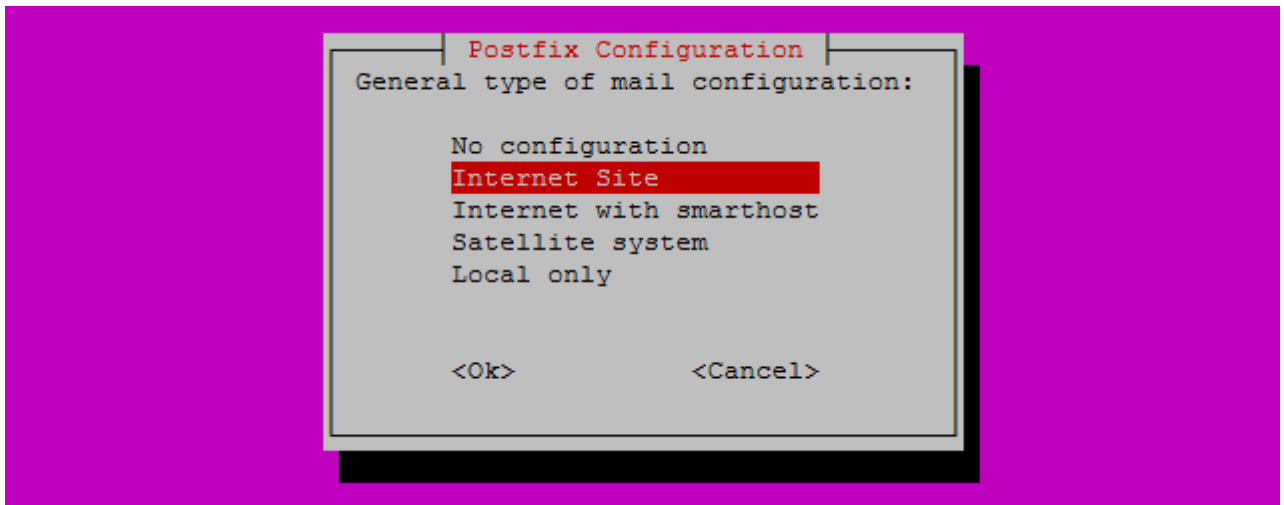
← → ↻ 🔍 dev.example1.com

Hello from developers at dev.example1.com

```
Country Name (2 letter code) [AU]:IN
State or Province Name (full name) [Some-State]:MH
Locality Name (eg, city) []:MUM
Organization Name (eg, company) [Internet Widgits Pty Ltd]:example
Organizational Unit Name (eg, section) []:tech
Common Name (e.g. server FQDN or YOUR name) []:example.com
Email Address []:admin@example.com
```

```
ubuntu@ubuntu:/etc/apache2/ssl$ ls -l
total 8
-rw-r--r-- 1 root root 1391 Aug 12 14:55 ssl.crt
-rw-r--r-- 1 root root 1704 Aug 12 14:55 ssl.key
```

Chapter 4 - Working with Mail Servers



```
myhostname = mail.example.com
alias_maps = hash:/etc/aliases
alias_database = hash:/etc/aliases
myorigin = /etc/mailname
mydestination = mail.example.com, ubuntu, localhost.localdomain, localhost
relayhost =
mynetworks = 127.0.0.0/8 [::ffff:127.0.0.0]/104 [::1]/128
```

```
# TLS parameters
smtpd_tls_cert_file=/etc/ssl/certs/ssl-cert-snakeoil.pem
smtpd_tls_key_file=/etc/ssl/private/ssl-cert-snakeoil.key
smtpd_use_tls=yes
```

```
ubuntu@ubuntu:~$ telnet localhost 25
Trying ::1...
Connected to localhost.
Escape character is '^]'.
220 mail.example.com ESMTP Postfix (Ubuntu)
```

```
root@ubuntu:~# mail
"/var/mail/root": 1 message 1 new
>N 1 ubuntu Tue Sep 1 15:34 10/375
? █
```

```
ubuntu@ubuntu:~$ telnet localhost pop3
Trying ::1...
Connected to localhost.
Escape character is '^]'.
+OK Dovecot (Ubuntu) ready.
```

```
ubuntu@ubuntu:~$ grep vmail /etc/passwd
vmail:x:1001:1001::/home/vmail:/usr/bin/nologin
ubuntu@ubuntu:~$
```

```
# =====
# service type private unpriv chroot wakeup maxproc command + args
# (yes) (yes) (yes) (never) (100)
# =====
smtp inet n - - - - smtpd
-o content_filter=spamassassin
```

```
spamassassin unix - n n - - pipe
user=spamd argv=/usr/bin/spamc -f -e
/usr/sbin/sendmail -oi -f ${sender} ${recipient}
```

```
ubuntu@ubuntu:~$ sudo service postfix status
* postfix is running
ubuntu@ubuntu:~$ sudo service dovecot status
dovecot start/running, process 5260
```

```
ubuntu@ubuntu:~$ tail -f /var/log/mail.log | grep dovecot
Sep 1 16:17:45 ubuntu dovecot: anvil: Warning: Killed with signal 15 (by pid=1 uid=0 code=kill)
Sep 1 16:17:45 ubuntu dovecot: log: Warning: Killed with signal 15 (by pid=1 uid=0 code=kill)
Sep 1 16:17:45 ubuntu dovecot: master: Dovecot v2.2.9 starting up (core dumps disabled)
Sep 1 16:18:14 ubuntu dovecot: pop3-login: Aborted login (no auth attempts in 9 seconds): user=<>, rip=::1, lip=::1, secured, session=<RUB/Sa0eIAAAAAAAAAAAAAAAAAAAAAAB>
```

```
ubuntu@ubuntu:~$ tail -f /var/log/mail.log | grep -v dovecot
Sep  1 16:50:15 ubuntu postfix/smtp[5426]: 5DA06380726: to=<root@example.com>, relay
=none, delay=4733, delays=4713/0.01/20/0, dsn=4.4.3, status=deferred (Host or domain
name not found. Name service error for name=example.com type=MX: Host not found, tr
y again)
```

```
ubuntu@ubuntu:~$ sudo netstat -pltn
Active Internet connections (only servers)
Proto Recv-Q Send-Q Local Address           Foreign Address         State       PID/Program name
tcp        0      0 0.0.0.0:143             0.0.0.0:*               LISTEN      5260/dovecot
tcp        0      0 0.0.0.0:22             0.0.0.0:*               LISTEN      776/sshd
tcp        0      0 0.0.0.0:25             0.0.0.0:*               LISTEN      5687/master
tcp        0      0 0.0.0.0:993            0.0.0.0:*               LISTEN      5260/dovecot
tcp        0      0 0.0.0.0:995            0.0.0.0:*               LISTEN      5260/dovecot
tcp        0      0 0.0.0.0:110            0.0.0.0:*               LISTEN      5260/dovecot
tcp6       0      0 :::143                 :::*                   LISTEN      5260/dovecot
```

```
License Terms for the Zimbra Collaboration Suite:
http://www.zimbra.com/license/zimbra-public-eula-2-5.html
```

```
Do you agree with the terms of the software license agreement? [N] y
```

```
Select the packages to install
```

```
Install zimbra-ldap [Y] y
```

```
Install zimbra-logger [Y] y
```

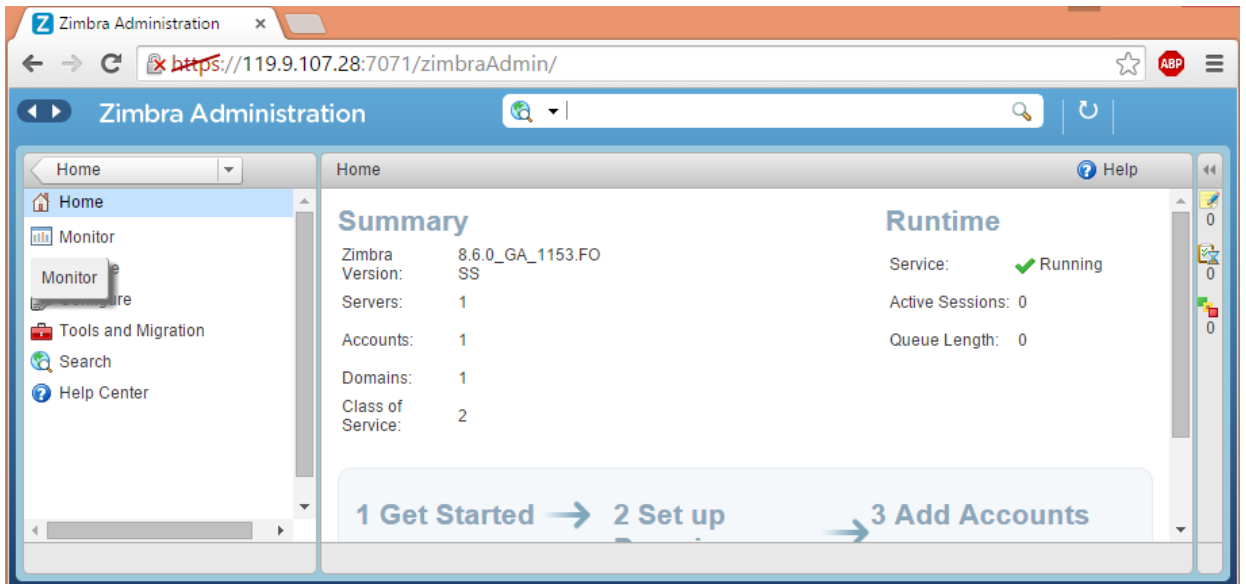
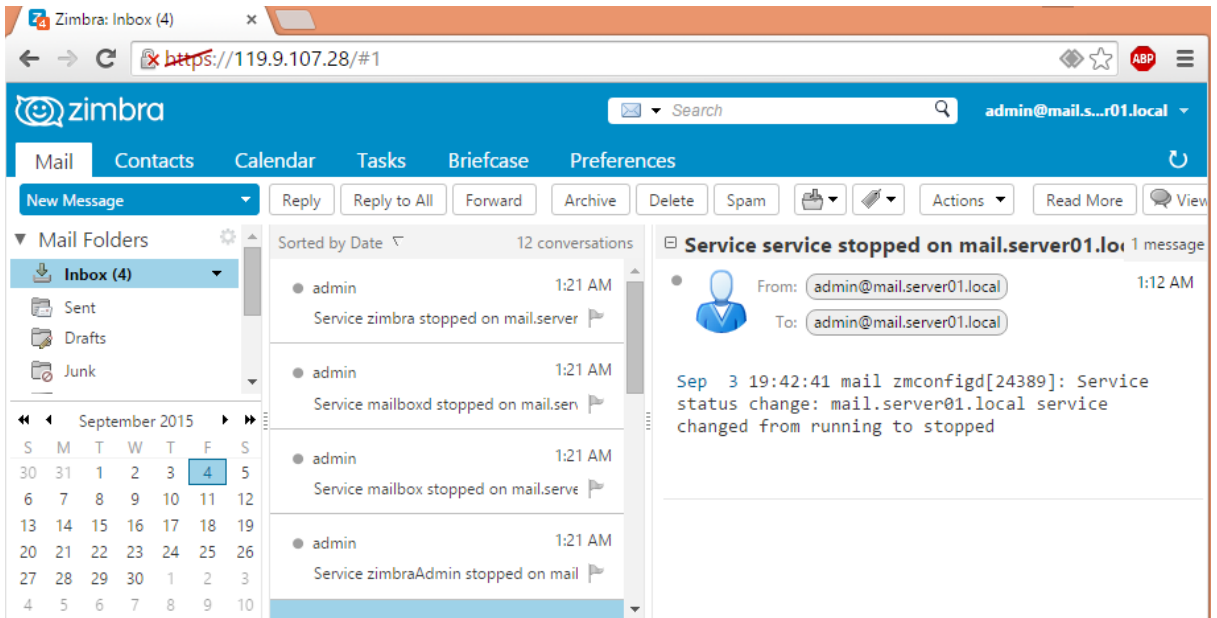
```
4) zimbra-mta: Enabled
5) zimbra-snmp: Enabled
6) zimbra-store: Enabled
   +Create Admin User: yes
   +Admin user to create: admin@mail.server01.local
***** +Admin Password UNSET
   +Anti-virus quarantine user: virus-quarantine.3rml02nfg@mail.server01.local
   +Enable automated spam training: yes
```

```
Select, or 'r' for previous menu [r] 4
```

```
Password for admin@mail.server01.local (min 6 characters): [Vfs7tvEVf] password
```

```
*** CONFIGURATION COMPLETE - press 'a' to apply
Select from menu, or press 'a' to apply config (? - help) a
Save configuration data to a file? [Yes]
Save config in file: [/opt/zimbra/config.8466]
Saving config in /opt/zimbra/config.8466...done.
The system will be modified - continue? [No] y
```

```
Notify Zimbra of your installation? [Yes] y
Notifying Zimbra of installation via http://www.zimbra.com/cgi-bin/notify.cgi?VER=8.6.0_
GA_1153_UBUNTU14_64&MAIL=admin@mail.server01.local
Notification complete
```



Chapter 5 - Handling Databases

Configuring mysql-server-5.6

While not mandatory, it is highly recommended that you set a password for the MySQL administrative "root" user.

If this field is left blank, the password will not be changed.

New password for the MySQL "root" user:

<Ok>

```
# Instead of skip-networking the default is now to listen only on
# localhost which is more compatible and is not less secure.
bind-address            = 10.0.2.6
#
```

List of all MySQL commands:

Note that all text commands must be first on line and end with ';'.

```
?          (\?)  Synonym for 'help'.
clear      (\c)  Clear the current input statement.
connect    (\r)  Reconnect to the server. Optional arguments are db and host.
delimiter (\d)  Set statement delimiter.
edit       (\e)  Edit command with $EDITOR.
ego        (\G)  Send command to mysql server, display result vertically.
```

```
ubuntu@ubuntu:~$ mysql -u admin -h localhost -p
Enter password:
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 7
Server version: 5.7.12-0ubuntu1 (Ubuntu)
```

```
mysql> show databases;
+-----+
| Database |
+-----+
| information_schema |
| myblog |
| mysql |
| performance_schema |
| replication_test |
+-----+
5 rows in set (0.03 sec)
```

```
mysql> show tables;
+-----+
| Tables_in_myblog |
+-----+
| articles |
+-----+
1 row in set (0.00 sec)
```

```
mysql> INSERT INTO `articles` (`id`, `title`, `content`, `created_at`)
-> VALUES (NULL, 'My first blog post', 'contents of article', CURRENT_TIMESTAMP);
Query OK, 1 row affected (0.04 sec)
```

```
mysql> select * from articles;
+----+-----+-----+-----+
| id | title          | content          | created_at          |
+----+-----+-----+-----+
|  1 | New title      | contents of article | 2015-09-15 16:42:26 |
|  2 | My second blog post | contents of blog 2 | 2015-09-15 16:44:15 |
+----+-----+-----+-----+
2 rows in set (0.00 sec)
```

```
mysql> update articles set title = "New title" where id = 1;
Query OK, 1 row affected (0.01 sec)
Rows matched: 1  Changed: 1  Warnings: 0
```

```
ubuntu@ubuntu:~$ cat /tmp/articles.csv
"1","New title","contents of article","2015-09-15 16:42:26"
"2","My second blog post","contents of blog 2","2015-09-15 16:44:15"
ubuntu@ubuntu:~$
```

```
mysql> select user, host, password from mysql.user where user = 'blog_admin';
+-----+-----+-----+
| user      | host      | password          |
+-----+-----+-----+
| blog_admin | localhost | *59C70DA2F3E3A5BDF46B68F5C8B8F25762BCCEF0 |
+-----+-----+-----+
1 row in set (0.00 sec)
```

```
mysql> show grants for 'blog_admin'@'localhost';
+-----+
| Grants for blog_admin@localhost |
+-----+
| GRANT ALL PRIVILEGES ON *.* TO 'blog_admin'@'localhost' IDENTIFIED BY PASSWORD '*59C70DA2F3E3A5BDF46B68F5C8B8F25762BCCEF0' WITH GRANT OPTION |
+-----+
1 row in set (0.00 sec)
```

Configuring phpmyadmin

The phpmyadmin package must have a database installed and configured before it can be used. This can be optionally handled with `dbconfig-common`.

If you are an advanced database administrator and know that you want to perform this configuration manually, or if your database has already been installed and configured, you should refuse this option. Details on what needs to be done should most likely be provided in `/usr/share/doc/phpmyadmin`.

Otherwise, you should probably choose this option.

Configure database for phpmyadmin with `dbconfig-common`?

<Yes>

<No>

Configuring phpmyadmin

Please provide the password for the administrative account with which this package should create its MySQL database and user.

Password of the database's administrative user:

<Ok>

<Cancel>

Please provide a password for phpmyadmin to register with the database server. If left blank, a random password will be generated.

MySQL application password for phpmyadmin:

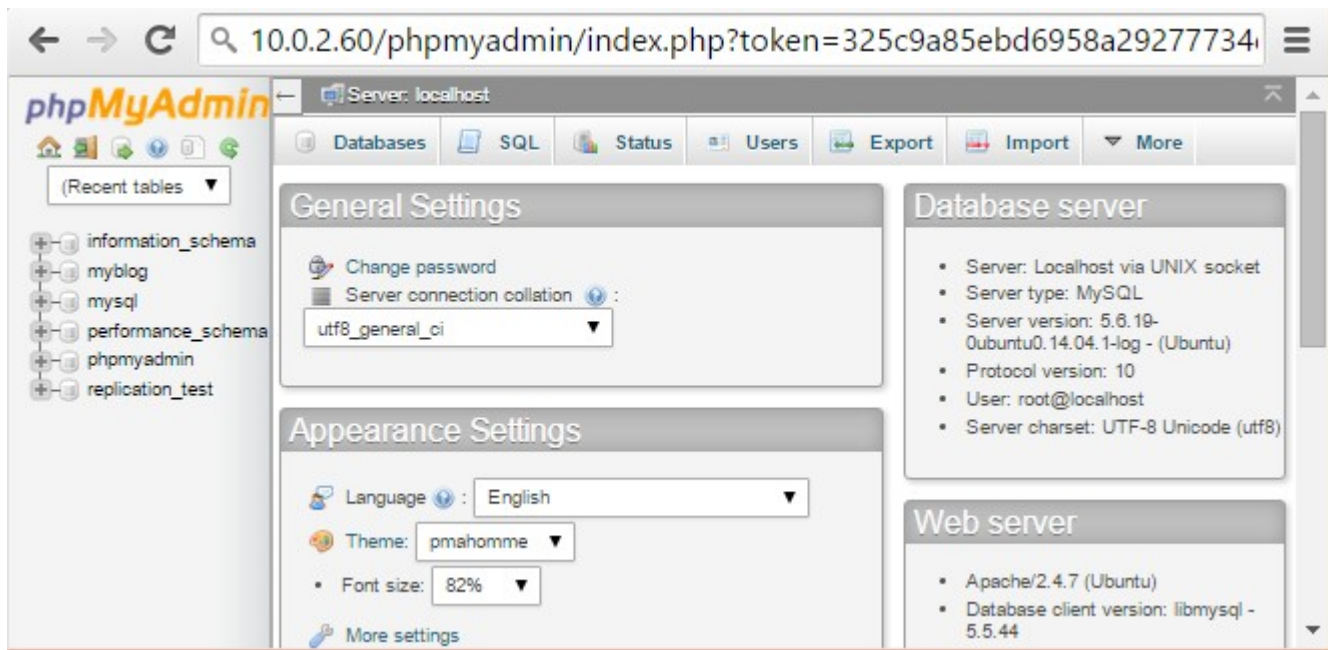
<Ok>

<Cancel>

Web server to reconfigure automatically:

- apache2
- lighttpd

<Ok>



```
mysql> select count(*) from salaries where salary between 30000 and 65000 and fr
om_date > '1986-01-01';
+-----+
| count(*) |
+-----+
| 1646072 |
+-----+
1 row in set (3.67 sec)
```

```
mysql> explain select count(*) from salaries where salary between 30000 and 65000 and from_date > '1986-01-01';
+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| id | select_type | table | type | possible_keys | key | key_len | ref | rows | Extra |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 1 | SIMPLE | salaries | ALL | NULL | NULL | NULL | NULL | 2756234 | Using where |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+
1 row in set (0.04 sec)
```

```
| employees.employees.emp_no | 10001 | 499999 | 5 |
6 | 0 | 0 | 253321.7634 | 300552.3312 | MEDIUM
INT(6) UNSIGNED NOT NULL |
| employees.employees.birth_date | 1952-02-01 | 1965-02-01 | 10 |
10 | 0 | 0 | 10.0000 | NULL | DATE NOT
NULL |
| employees.employees.first_name | Aamer | Zvonko | 3 |
14 | 0 | 0 | 6.2157 | NULL | VARCHAR
R(14) NOT NULL |
```

```
mysql> show master status;
+-----+-----+-----+-----+-----+
| File | Position | Binlog_Do_DB | Binlog_Ignore_DB | Executed_Gt |
+-----+-----+-----+-----+-----+
| mysql-bin.000010 | 2214 | | mysql | |
+-----+-----+-----+-----+-----+
1 row in set (0.00 sec)
```

```
mysql> show slave status\G
***** 1. row *****
      Slave_IO_State: Waiting for master to send event
      Master_Host: 10.0.2.6
      Master_User: slave_user
      Master_Port: 3306
      Connect_Retry: 60
      Master_Log_File: mysql-bin.000010
      Read_Master_Log_Pos: 2214
```

```
> db.users.insert({'name':'ubuntu','uid':1001})
WriteResult({ "nInserted" : 1 })
>
```

```
> show dbs
local   0.078GB
test    0.078GB
testdb  0.078GB
>
```

```
> show collections
system.indexes
users
>
```



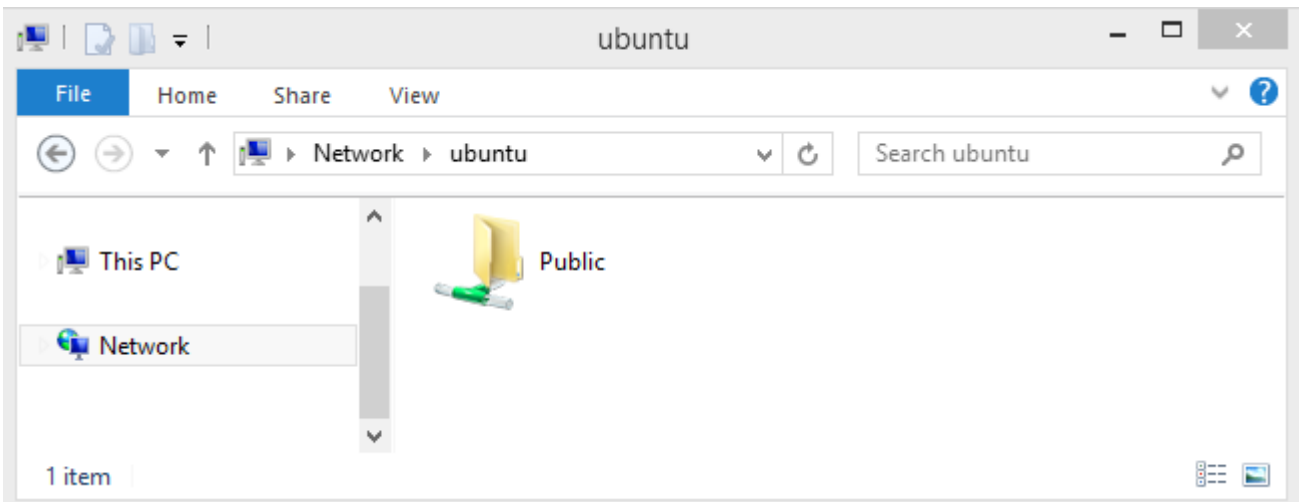
```
> db.users.find()
{ "_id" : ObjectId("55f7d9b28b756ea94f93a10d"), "name" : "root", "uid" : 1010, "gid" : [ 1010, 1000, 1111 ] }
{ "_id" : ObjectId("560ce2a7cf3368a229826104"), "name" : "root", "uid" : 1010, "gid" : [ 1010, 1000, 1111 ] }
>
```

```
> db.users.findOne({uid:1010}, {name:1})
{ "_id" : ObjectId("55f7d9b28b756ea94f93a10d"), "name" : "root" }
>
```

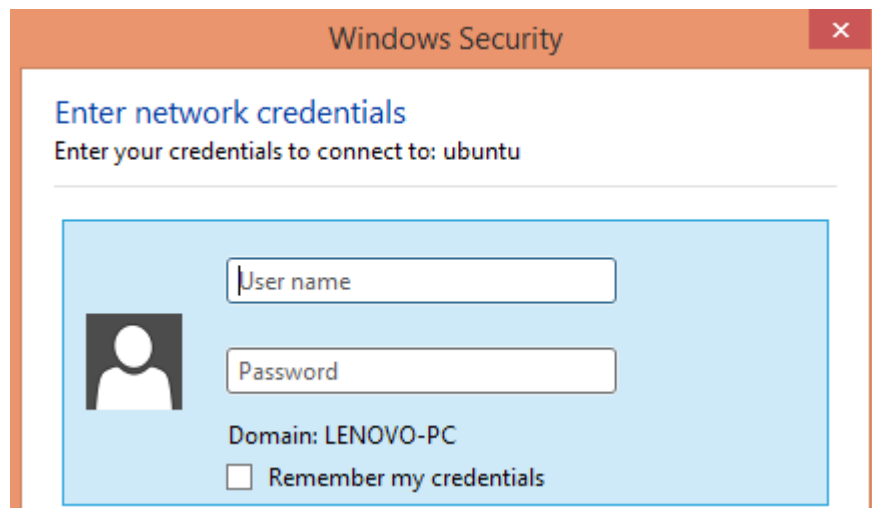
```
> db.users.findOne({uid:1010}, {name:0})
{
  "_id" : ObjectId("55f7d9b28b756ea94f93a10d"),
  "uid" : 1010,
  "gid" : [
    1010,
    1000,
    1111
  ]
}
>
```

Chapter 6 - Network Storage

```
ubuntu@ubuntu:~$ smbclient -L localhost -U%  
Domain=[WORKGROUP] OS=[Unix] Server=[Samba 4.1.6-Ubuntu]  
  
Sharename      Type           Comment  
-----      -  
IPC$          IPC           IPC Service (Samba Server 4.1.6-Ubuntu)  
Private       Disk  
Domain=[WORKGROUP] OS=[Unix] Server=[Samba 4.1.6-Ubuntu]
```



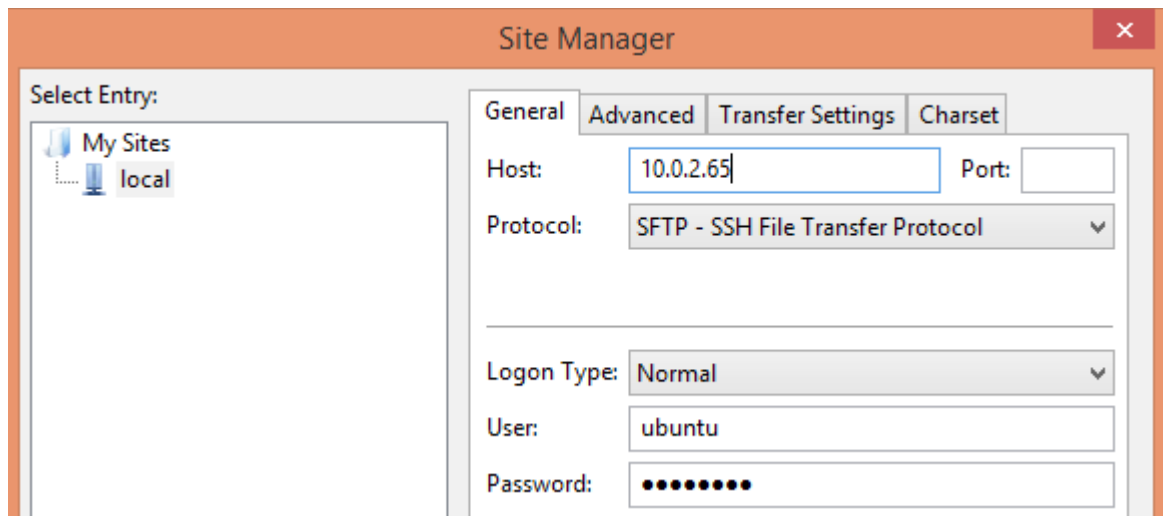
```
ubuntu@ubuntu:/var/samba/shares/public$ sudo smbpasswd -a smbuser
[sudo] password for ubuntu:
New SMB password:
Retype new SMB password:
ubuntu@ubuntu:/var/samba/shares/public$
```



The image shows a Windows Security dialog box titled "Windows Security" with a close button (X) in the top right corner. The main heading is "Enter network credentials" and the subtitle is "Enter your credentials to connect to: ubuntu". Below this, there is a light blue rectangular area containing a user icon on the left. To the right of the icon are two input fields: "User name" and "Password". Below the input fields, it says "Domain: LENOVO-PC" and there is a checkbox labeled "Remember my credentials" which is currently unchecked.

```
ubuntu@ubuntu:~$ testparm
Load smb config files from /etc/samba/smb.conf
rlimit_max: increasing rlimit_max (1024) to minimum Windows limit (16384)
Processing section "[Private]"
Loaded services file OK.
Server role: ROLE_STANDALONE
Press enter to see a dump of your service definitions

[global]
    server string = Samba Server %v
```



```
ubuntu@dest:~$ rsync -azP -e ssh ubuntu@10.0.2.8:/home/ubuntu/sampledir/ backup
receiving incremental file list
./
file1
      0 100%   0.00kB/s   0:00:00 (xfr#1, to-chk=22/24)
file10
      0 100%   0.00kB/s   0:00:00 (xfr#2, to-chk=21/24)
file11
```

```
ubuntu@dest:~$ rsync -azP -e ssh ubuntu@10.0.2.8:/home/ubuntu/sampledir/ backup
receiving incremental file list
./
file22
      0 100%   0.00kB/s   0:00:00 (xfr#1, to-chk=7/25)
ubuntu@dest:~$
```

```
ubuntu@ubuntu:~$ sudo tcpdump -p -s 0 -w tcpdumps port 445 or port 139
[sudo] password for ubuntu:
tcpdump: listening on eth0, link-type EN10MB (Ethernet), capture size 65535 bytes
```

```
ubuntu@ubuntu:~$ echo "hello" | telnet localhost 139
Trying ::1...
Connected to localhost.
Escape character is '^]'.
Connection closed by foreign host.
```

```
ubuntu@ubuntu:~$ sudo ufw show added
Added user rules (see 'ufw status' for running firewall):
ufw allow 139
ufw allow 445
ubuntu@ubuntu:~$
```

```
ubuntu@ubuntu:~$ sudo netstat -plutn | grep smb
tcp        0      0 0.0.0.0:445          0.0.0.0:*          LISTEN
704/smbd
tcp        0      0 0.0.0.0:139         0.0.0.0:*          LISTEN
704/smbd
tcp6       0      0 :::445             :::*               LISTEN
704/smbd
tcp6       0      0 :::139             :::*               LISTEN
704/smbd
```

```
ubuntu@ubuntu:~$ sudo pdbedit -I
smbuser:1001:
ubuntu:1000:ubuntu
ubuntu@ubuntu:~$
```

```
ubuntu@ubuntu:~$ smbtree
Enter ubuntu's password:
WORKGROUP
    \\UBUNTU
        \\UBUNTU\Private
        \\UBUNTU\IPC$
Samba Server 4.1.6-Ubuntu
IPC Service (Samba Server 4.1.6-
Ubuntu)
ubuntu@ubuntu:~$
```

Chapter 7 - Cloud Computing

```
This is your host IP address: 192.168.1.10
This is your host IPv6 address: ::1
Horizon is now available at http://192.168.1.10/dashboard
Keystone is serving at http://192.168.1.10:5000/
The default users are: admin and demo
The password: password
ubuntu@ubuntu:~/devstack$
```



The image shows the OpenStack Dashboard login interface. At the top center is the OpenStack logo, which consists of a red 3D cube with a white square in the center, and the text "openstack" below it. Underneath the logo is a small blue box with the word "DASHBOARD" in white. Below the logo is the text "Log in". There are two input fields: "User Name" and "Password". The "Password" field has a small eye icon to its right, indicating a toggle for password visibility. The entire form is enclosed in a light gray border.

openstack alt_demo admin

Admin / System / Instances

Instances

Project = Filter

<input type="checkbox"/>	Project	Host	Name	Image Name	IP Address	Size	Status	Task	Power State	Time since created	Act
<input type="checkbox"/>	alt_demo	ubuntu	test1	-	10.11.12.3	cirros256	Active	None	Running	1 day	E

Displaying 1 item


Overview
Hypervisors
Host Aggregates
Instances
Volumes

openstack

Project / Compute / Overview

Overview

Limit Summary



Instances

Project
Compute
Overview
Instances
Volumes
Images

Project (0)
 Shared with Me (0)
 Public (4)

<input type="checkbox"/>	Image Name	Type	Status	Public	Protected	Format	Size	Actions
<input type="checkbox"/>	Ubuntu Xenial	Image	Active	Yes	No	QCOW2	289.8 MB	Launch <input type="button" value="▼"/>
<input type="checkbox"/>	cirros-0.3.4-x86_64-uec-ramdisk	Image	Active	Yes	No	ARI	3.6 MB	

Project (1)
 Shared with Me (0)
 Public (4)

<input type="checkbox"/>	Image Name	Type	Status	Public	Protected	Format	Size	Actions
<input type="checkbox"/>	Ubuntu Trusty	Image	Active	No	No	QCOW2	247.7 MB	Launch <input type="button" value="▼"/>

Displaying 1 item

```

ubuntu@ubuntu:~$ glance image-list
+-----+-----+
| ID                | Name                |
+-----+-----+
| 6948c538-7f52-4439-8e81-e26cdefc8b08 | cirros-0.3.4-x86_64-uec |
| ad7a5ef1-f500-4e5d-a44e-22710c066938 | cirros-0.3.4-x86_64-uec-kernel |
| c1b1b13e-1d4c-49c4-8dd6-0e25c3c12ba1 | cirros-0.3.4-x86_64-uec-ramdisk |
| abf59bb4-68e6-4b89-8b77-8fdaeff7163e | Ubuntu Trusty |
| ffddf013-5f6c-4c47-b4fe-e087957680fd | Ubuntu Xenial |
+-----+-----+
  
```

Details *

Source *

Flavor *

Network Ports

Key Pair

Please provide the initial hostname for the instance, the availability zone where instance count. Increase the Count to create multiple instances with the same se

Instance Name *

Availability Zone

Count *

Select Boot Source

Create New Volume

Allocated

Name	Updated	Size	Type	Visibility	
> Ubuntu Trusty	6/4/16 11:26 AM	247.69 MB	qcow2	Private	-

Instance Name =

<input type="checkbox"/>	Instance Name	Image Name	IP Address	Size	Key Pair	Status	Availability Zone	Task	Power State	Time since created
<input type="checkbox"/>	First Instance	Ubuntu Trusty	10.11.12.6	m1.small	demo	Active	nova	None	Running	1 minute

Displaying 1 item

Juju / [admin@local](#) / [default](#) [Store](#) [Logout](#)

0 services | 0 machines

Add a charm or bundle to get started

[Import](#)

```
ubuntu@ubuntu:~$ juju status
[Services]
NAME          STATUS      EXPOSED  CHARM
mysql         maintenance false     cs:trusty/mysql-38
wordpress    unknown    false     cs:trusty/wordpress-4

[Relations]
SERVICE1    SERVICE2    RELATION    TYPE
mysql        mysql       cluster     peer
wordpress    wordpress   loadbalancer peer
```


Chapter 8 - Working with Containers

```
ubuntu@cookbook:~$ docker network create wpnet
d2405dfb37f4d450e09b0f62ca097fd85da9017016184a8ee038c5e27e5b30cd
ubuntu@cookbook:~$ docker network ls
NETWORK ID          NAME          DRIVER
d3c35f350f8e       bridge       bridge
fd9b429d3539       none         null
b9e3d814828e       host         host
d2405dfb37f4       wpnet        bridge
```

```
ubuntu@cookbook:~$ docker network inspect wpnet
[
  {
    "Name": "wpnet",
    "Id": "d2405dfb37f4d450e09b0f62ca097fd85da9017016184a8ee038c5e27e5b30cd",
    "Scope": "local",
    "Driver": "bridge",
    "IPAM": {
      "Driver": "default",
      "Config": [
        {}
      ]
    },
    "Containers": {},
    "Options": {}
  }
]
```

```

    "Containers": {
      "278abce759709f28a45dac29fc79ca13104a7be5bdb45c3bfff326a3ae6a6262": {
        {
          "EndpointID": "84ce992c28743857d3ca478bcaead36262f58f5d81433a9dd
46e06ef63913910",
          "MacAddress": "02:42:ac:12:00:02",
          "IPv4Address": "172.18.0.2/16",
          "IPv6Address": ""
        },
        "00318648190de753188f9d8aa42c5f58e0333f2b503ddb6c9e260ac98e37be2e": {
        {
          "EndpointID": "dc3aa8f8b0c01ef9c7080fc875dd7a2e4d1a5e3d459249d64
ed5fd117b8faa1a",
          "MacAddress": "02:42:ac:12:00:03",
          "IPv4Address": "172.18.0.3/16",
          "IPv6Address": ""
        }
      }
    },
  },
}

```

CONTAINER	CPU %	MEM USAGE / LIMIT	MEM %
mysql	0.03%	438.5 MB / 4.145 GB	10.58%
wordpress	0.00%	84.7 MB / 4.145 GB	2.04%

```

[INFO] 1 - Host Configuration
[WARN] 1.1 - Create a separate partition for containers
[PASS] 1.2 - Use an updated Linux Kernel
[PASS] 1.5 - Remove all non-essential services from the host - Network
[PASS] 1.6 - Keep Docker up to date
[INFO] 1.7 - Only allow trusted users to control Docker daemon

```

```
ubuntu@ubuntu:~$ lxc launch ubuntu:14.04/amd64 c1
Creating c1
Retrieving image: 100%
Starting c1
ubuntu@ubuntu:~$
```

```
ubuntu@ubuntu:~$ lxc list
```

```
+-----+-----+-----+-----+-----+
| NAME | STATE | IPV4 | IPV6 | TYPE | SNAPSHOTS |
+-----+-----+-----+-----+-----+
| c1 | RUNNING | 10.201.233.13 (eth0) | | PERSISTENT | 0 |
+-----+-----+-----+-----+-----+
```

```
ubuntu@ubuntu:~$
```

```
ubuntu@ubuntu:~$ lxc exec c1 -- lsb_release -a
```

```
No LSB modules are available.
Distributor ID: Ubuntu
Description: Ubuntu 14.04.4 LTS
Release: 14.04
Codename: trusty
```

```
ubuntu@ubuntu:~$ lxc list c1
```

```
+-----+-----+-----+-----+-----+
| NAME | STATE | IPV4 | IPV6 | TYPE | SNAPSHOTS |
+-----+-----+-----+-----+-----+
| c1 | FROZEN | 10.201.233.13 (eth0) | | PERSISTENT | 0 |
+-----+-----+-----+-----+-----+
```

```
ubuntu@ubuntu:~$ lxc profile show cookbook
name: cookbook
config:
  boot.autostart: "true"
  limits.cpu: "1"
  limits.cpu.priority: "10"
  limits.disk.priority: "10"
```

```
ubuntu@ubuntu:~$ lxc info c4
Name: c4
Architecture: x86_64
Created: 2016/05/22 17:44 UTC
Status: Running
Type: persistent
Profiles: cookbook
Pid: 13300
```

Would you like to setup a network bridge for LXD containers now?

<Yes>

<No>

Do you want to use an existing bridge?

<Yes>

<No>


```
A valid network interface name (e.g. lxdbr0).
```

```
Bridge interface name:
```

```
br0
```

```
<Ok>
```

```
description: Default LXD profile
devices:
  eth0:
    name: eth0
    nictype: bridged
    parent: br0
    type: nic
```

```
ubuntu@ubuntu:~$ lxc list
```

NAME	STATE	IPV4	IPV6	TYPE	SNAPSHOTS
c5	RUNNING	192.168.0.104 (eth0)		PERSISTENT	0

```
ubuntu@cookbook:~$ sudo docker run hello-world
```

```
Hello from Docker.
```

```
This message shows that your installation appears to be working correctly.
```

```
To generate this message, Docker took the following steps:
```

1. The Docker client contacted the Docker daemon.
2. The Docker daemon pulled the "hello-world" image from the Docker Hub.

```
ubuntu@cookbook:~$ docker ps -a
CONTAINER ID   STATUS    IMAGE              PORTS   COMMAND                CREATED
708fea034cbe   Exited (0) 28 seconds ago   ubuntu          "/bin/bash"           59 seconds ago
7c289a54b60b   Exited (0) 7 minutes ago     hello-world     "/hello"               7 minutes ago
condescending_bo
```

```
ubuntu@cookbook:~$ docker start -ia dc1
root@708fea034cbe:/#
root@708fea034cbe:/# exit
exit
ubuntu@cookbook:~$
```

```
ubuntu@cookbook:~$ docker exec dc1 ifconfig
eth0      Link encap:Ethernet  HWaddr 02:42:ac:11:00:02
          inet addr:172.17.0.2  Bcast:0.0.0.0  Mask:255.255.0.0
          inet6 addr: fe80::42:acff:fe11:2/64 Scope:Link
          UP BROADCAST RUNNING MULTICAST  MTU:1500  Metric:1
          RX packets:8 errors:0 dropped:0 overruns:0 frame:0
```

```
ubuntu@cookbook:~$ docker top dc1
UID          PID          PPID         C
STIME       TTY          TIME         CMD
root        6495         866          0
05:23      pts/12       00:00:00      /bin/bash
```

```
ubuntu@cookbook:~/ubuntu_nginx$ docker build .
Sending build context to Docker daemon 3.072 kB
Step 1 : FROM ubuntu:trusty
---> 1d073211c498
Step 2 : MAINTAINER ubuntu server cookbook
---> Running in 24b4e9d4db7b
---> b5449baf8533
Removing intermediate container 24b4e9d4db7b
Step 3 : RUN apt-get update && apt-get -yq install apache2 && apt-get clean && rm
m -rf /var/lib/apt/lists/*
---> Running in c92dac5c8d28
```

```
Step 12 : CMD /usr/sbin/apache2 -D FOREGROUND
---> Running in d75bff891353
---> e9cfe1181171
Removing intermediate container d75bff891353
Successfully built e9cfe1181171
```

```
ubuntu@cookbook:~$ docker run -p 80:80 -d e9cfe1181171
255c06f2478db50e33a501535c19880d825153fd6134f507514d6dfd525d1d75
ubuntu@cookbook:~$ docker ps
CONTAINER ID        IMAGE               COMMAND             CREATED
STATUS            PORTS              NAMES
255c06f2478d      e9cfe1181171      "/usr/sbin/apache2 -D"   6 seconds ago
Up 4 seconds      0.0.0.0:80->80/tcp   sad_keller
ubuntu@cookbook:~$
```

```
"Mounts": [  
  {  
    "Name": "99999cdfbab177220de964b63c6f6a3a283b68067765d9199fb7bd09350  
1d548",  
    "Source": "/var/lib/docker/volumes/99999cdfbab177220de964b63c6f6a3a2  
83b68067765d9199fb7bd093501d548/_data",  
    "Destination": "/var/lib/mysql",  
    "Driver": "local",  
    "Mode": "",  
    "RW": true  
  }  
]
```

```
ubuntu@cookbook:~$ docker run --rm --volumes-from mysql ubuntu ls -l /var/lib/my  
sql  
total 188444  
-rw-r----- 1 999 999      56 Nov 10 06:10 auto.cnf  
-rw-r----- 1 999 999    1319 Nov 10 06:10 ib_buffer_pool  
-rw-r----- 1 999 999 50331648 Nov 10 06:10 ib_logfile0  
-rw-r----- 1 999 999 50331648 Nov 10 06:10 ib_logfile1  
-rw-r----- 1 999 999 79691776 Nov 10 06:10 ibdata1
```

Chapter 9 - Streaming with Ampache


The screenshot shows the 'Adding a New User' form in the Ampache web interface. On the left is a sidebar with navigation options: Catalogs (Add a Catalog, Show Catalogs), User Tools (Add User, Browse Users), Access Control (Add ACL, Show ACL(s)), and Other Tools. The main form area has a title 'Adding a New User' and a 'Columns' link. The form fields include: Username: * (text input), Full Name: (text input), E-mail: * (text input), Website: (text input), Password: * (text input), Confirm Password: * (text input), User Access Level: (dropdown menu with 'Guest' selected), and Avatar (< 1 MB) (file upload button labeled 'Choose File' and 'No file chosen'). An orange 'Add User' button is located at the bottom right.

The screenshot shows the 'Add Access Control List' form in the Ampache web interface. The sidebar is identical to the previous screenshot. The main form area has a title 'Add Access Control List'. The form fields include: Name: (text input), Level: (radio buttons for View, Read, Read/Write, All), User: (dropdown menu with 'All' selected), ACL Type: (dropdown menu with 'Stream Access' selected), and IPv4 or IPv6 Addresses (with a sub-label '(255.255.255.255) / (ffff:ffff:ffff:ffff:ffff:ffff:ffff:ffff)') containing 'Start:' and 'End:' text inputs. An orange 'Create ACL' button is located at the bottom right.

Ampache :: For the love of ×

← → ↻ 54.169.133.253/install.php 🔍 ☆ ABP ☰

A Ampache Installation - For the love of Music



Ampache

Installation

Choose Installation Language

English (US) ▼




Start configuration

Requirements

This page handles the installation of the Ampache database and the creation of the ampache.cfg.php file. Before you continue please make sure that you have the following prerequisites:

- A MySQL server with a username and password that can create/modify databases
- Your webserver has read access to the files /home/udaysc/Web/ampache/sql/ampache.sql and /home/udaysc/Web/ampache/config/ampache.cfg.php.dist

Once you have ensured that the above requirements are met please fill out the information below. You will only be asked for the required config values. If you would like to make changes to your Ampache install at a later date simply edit /home/udaysc/Web/ampache/config/ampache.cfg.php


CHECK	STATUS	DESCRIPTION
PHP version		This tests whether you are running at least the minimum version of PHP required by Ampache.
PHP hash extension		This tests whether you have the hash extension enabled. This extension is required by Ampache.
SHA256		This tests whether the hash extension supports SHA256. This algorithm is required by Ampache.

Insert Ampache Database

Desired Database Name	<input type="text" value="ampache"/>
MySQL Hostname	<input type="text" value="localhost"/>
MySQL port (optional)	<input type="text"/>
MySQL Administrative Username	<input type="text" value="root"/>
MySQL Administrative Password	<input type="password" value="....."/>
Create Database	<input checked="" type="checkbox"/>
Overwrite if database already exists	<input type="checkbox"/>
Create Tables (ampache.sql)	<input checked="" type="checkbox"/>
Create Database User	<input checked="" type="checkbox"/>
Ampache Database Username	<input type="text" value="ampache"/>
Ampache Database User Password	<input type="password" value="....."/>

Create Admin Account

Username	<input type="text" value="admin"/>
Password	<input type="password" value="Password"/>
Confirm Password	<input type="password" value="Confirm Password"/>


Administrator (0) [Log out]

Anywhere

Advanced Search
Web Player

<<<
🎧
⏪
⚙️
✍️
📱
📺

Browse Music

- Song Titles
- Albums
- Artists
- Tag Cloud
- Playlists
- Smart Playlists
- Channels
- Radio Stations

Browse Video


- Music Clips
- TV Shows
- Movies
- Personal Videos
- Tag Cloud

No catalog configured yet. To start streaming your media, you now need to [add a catalog](#) .

Recently Played

Song	Album	Artist	Username	Last Played	Columns	Agent
No recently item found						
More						

:: [Donate](#) :: | Ampache 3.8.0
 Queries:241 Cache Hits:0 | Load time:1.2071


Administrator (0) [Log out]

Anywhere

Advanced Search
Web Player

<<<
🎧
⏪
⚙️
✍️
📱
📺

Browse Music

- Song Titles
- Albums
- Artists
- Tag Cloud
- Playlists
- Smart Playlists

No catalog configured yet. To start streaming your media, you now need to [add a catalog](#) .

Recently Played

Song	Album	Artist	Username	Last Played	Agent
No recently item found					

Add a Catalog

In the form below enter either a local path (i.e. /data/music) or the URL to a remote Ampache installation (i.e. http://theotherampache.com)

Catalog Name:

Catalog Type:

Filename Pattern:

Folder Pattern:
(no leading or ending '/')

Gather Art:

Build Playlists from playlist Files (m3u, asx, pls, xspf):

Gather media types:

Auto-inserted Fields:

- %A = album name
- %a = artist name
- %c = id3 comment
- %T = track number (padded with leading 0)
- %t = song title
- %y = year
- %o = other

[Columns](#)

[Add Catalog](#)

Catalog Creation started...

[Continue](#)

[:: Donate ::](#) | Ampache 3.8.0
 Queries:241 Cache Hits:0 | Load time:1.2071

Catalogs

Item Count: 1 Filters
Columns

Name	Info	Last Verify	Last Add	Last Clean	Actions
ubuntu Podcasts	/home/udaysc/podcasts	Never	20/11/2015 05:28	Never	<input type="text" value="Add"/> <input type="button" value="Go"/>

Item Count: 1 Filters

Songs

Item Count: 3

Filters Columns

Song Title	Artist	Album	Tags	Time	Rating	Fav.	Action
Episode 36 - The One in Massapequa	Ubuntu UK Podcast	Season 07	Podcast	33:26	★★★★★	♥	📺 🗨️ 🌱 ⚙️ 🛑
Episode 37 - The One on the Last Night	Ubuntu UK Podcast	Season 07	Podcast	28:25	★★★★★	♥	📺 🗨️ 🌱 ⚙️ 🛑
Episode 38 - The Last One	Ubuntu UK Podcast	Season 07	Podcast	57:30	★★★★★	♥	📺 🗨️ 🌱 ⚙️ 🛑

Item Count: 3

Filters

ubuntu uk podcasts

Episode 36 - The One in Massapequa

00:05 / 33:26

🔊 🔍


🔍 🗨️ 🌱 ⚙️ 🛑

Episode 36 - The One in Massapequa by Ubuntu UK Podcast

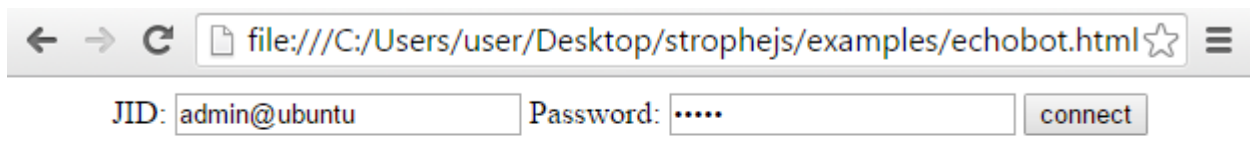
Chapter 10 - Communication Server with XMPP

```
###. =====
###'  ACCESS CONTROL LISTS
acl:
  admin:
    user:
      - "admin": "ubuntu"
```

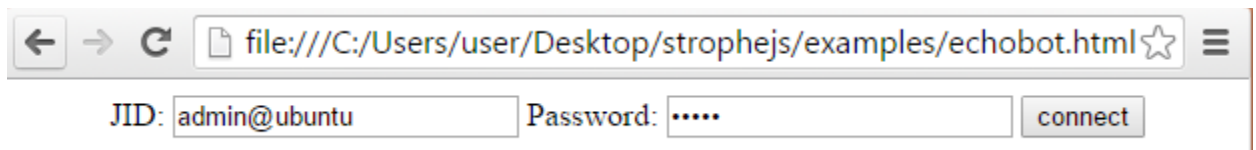
```
## Modules enabled in all ejabberd virtual hosts.
modules:
  mod_adhoc: {}
  mod_admin_extra: {}
  mod_announce: # recommends mod_adhoc
    access: announce
  mod_blocking: {} # requires mod_privacy
  mod_caps: {}
  mod_carboncopy: {}
```

← → ↻ 

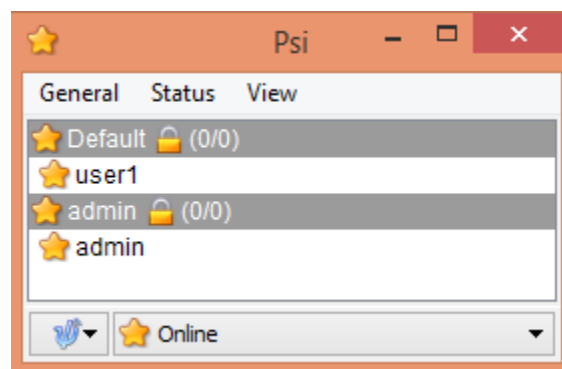
JID: Password:

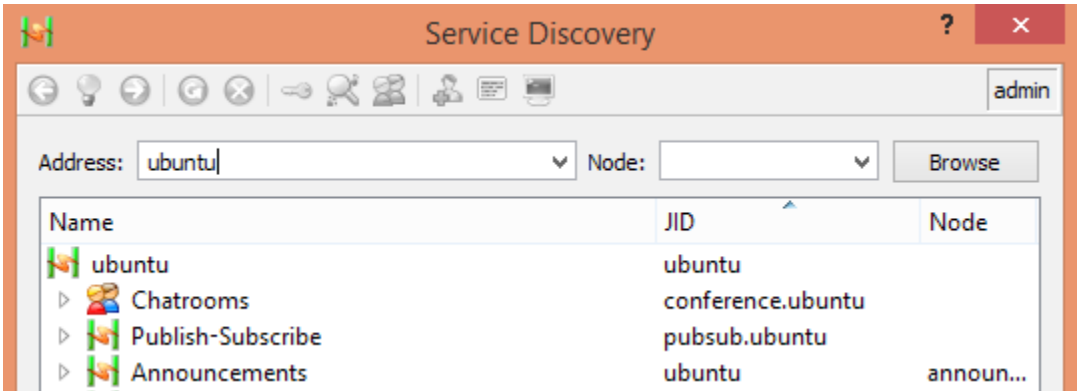
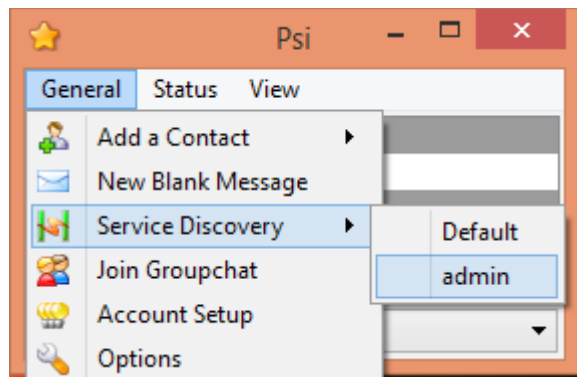


Strophe is connecting.
Strophe is connected.
ECHOBOT: Send a message to admin@ubuntu/8551152211449319057231360 to talk to me.



Strophe is connecting.
Strophe is connected.
ECHOBOT: Send a message to admin@ubuntu/8551152211449319057231360 to talk to me.
ECHOBOT: I got a message from user1@ubuntu/Lenovo-PC: Hii
ECHOBOT: I sent user1@ubuntu/Lenovo-PC: Hii





Psi: Join Groupchat

Identity: admin (admin@ubuntu)

Recent: user 1 on xmpp2@conference.ubuntu

Room information

Host: conference.ubuntu

Room:

Nickname: admin

Password:

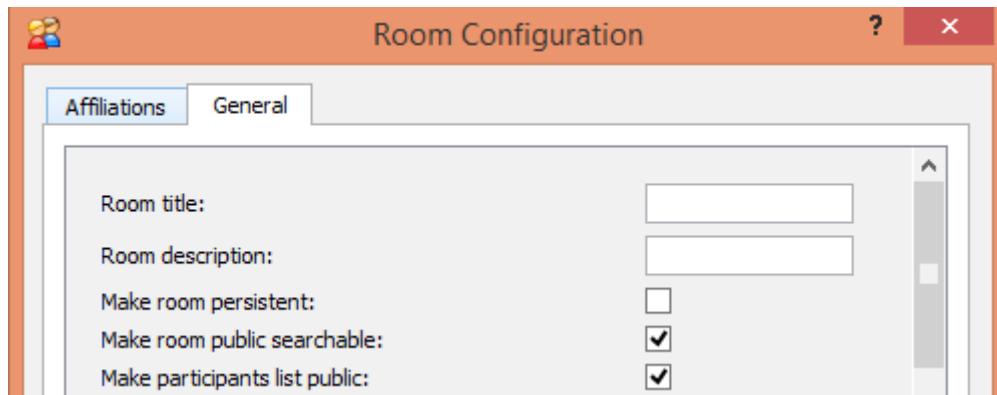
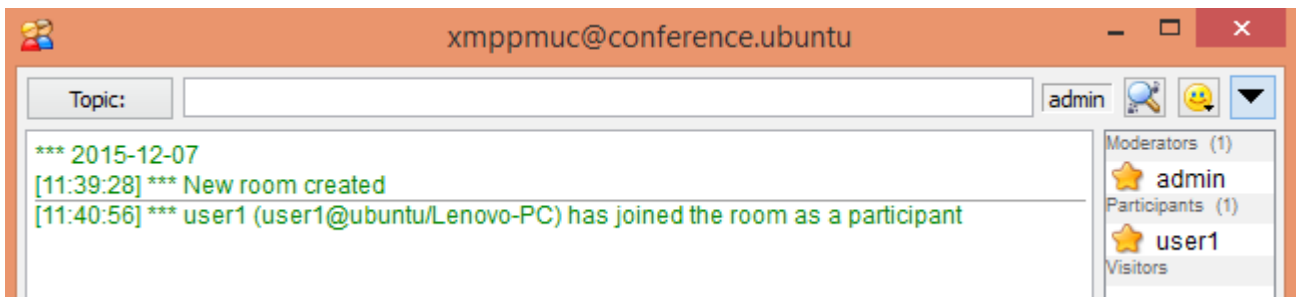
PSI Join Cancel

xmppmuc@conference.ubuntu

Topic: admin

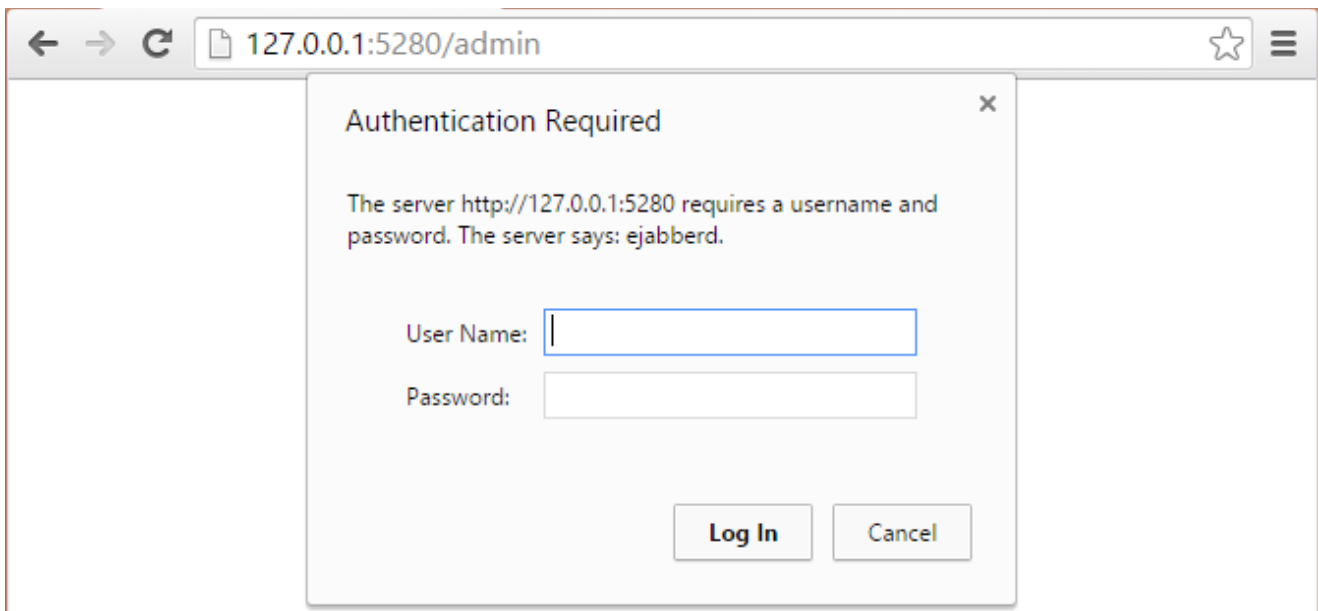
*** 2015-12-07 [11:39:28] *** New room created

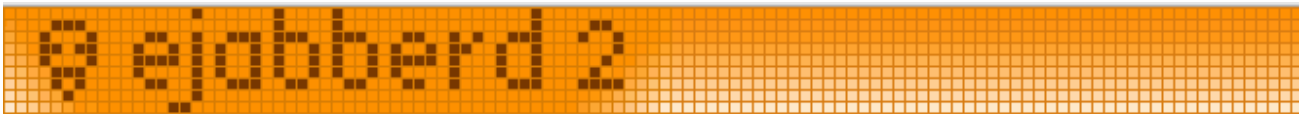
Moderators (1)
★ admin
Participants
Visitors




```
ubuntu@ubuntu:~$ whereis ejabberd
ejabberd: /opt/ejabberd-15.11/bin/ejabberd.init /opt/ejabberd-15.11/bin/ejabberd
.service
ubuntu@ubuntu:~$
```

```
ubuntu@ubuntu:/opt/ejabberd-15.11$ sudo bin/ejabberdctl start
ubuntu@ubuntu:/opt/ejabberd-15.11$ sudo bin/ejabberdctl status
The node ejabberd@localhost is started with status: started
ejabberd 15.11 is running in that node
ubuntu@ubuntu:/opt/ejabberd-15.11$
```





ejabberd
Access Control Lists
Access Rules
Virtual Hosts
Nodes
Statistics
Multi-User Chat

Administration

[\[Guide: Contents\]](#)

- [Access Control Lists](#)
- [Access Rules](#)
- [Virtual Hosts](#)
- [Nodes](#)
- [Statistics](#)
- [Multi-User Chat](#)

```
ubuntu@ubuntu:/opt/ejabberd-15.11$ sudo bin/ejabberdctl
Usage: ejabberdctl [--node nodename] [--auth user host password] command [option
s]

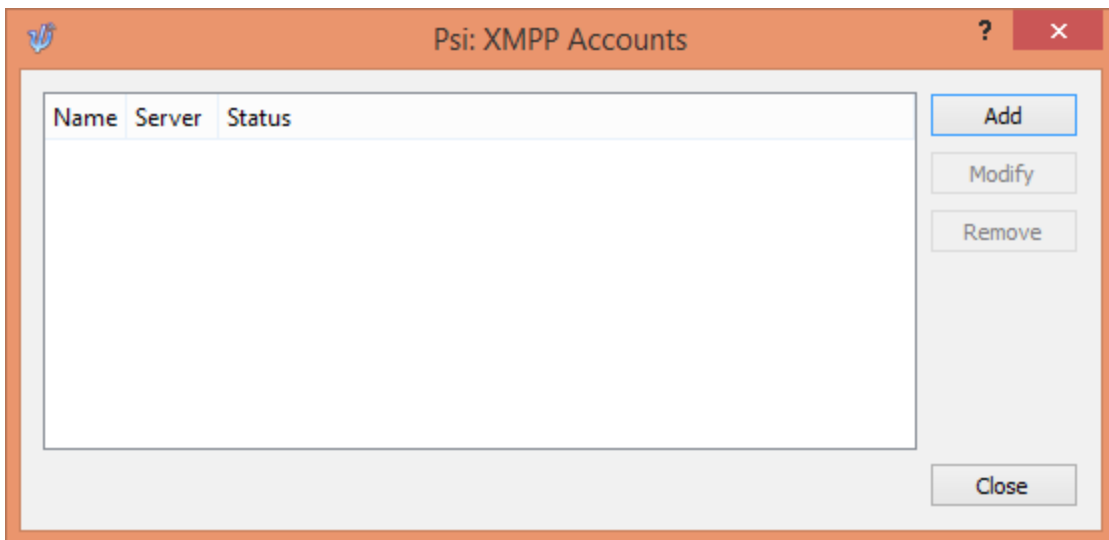
Available commands in this ejabberd node:

  add_rosteritem localuser localserver user server nick group subs
                Add an item to a user's roster (supports ODBC)

  backup file
                Store the database to backup file
```

```
ejabberd-15.11$ sudo bin/ejabberdctl register user1 ubuntu password
[sudo] password for ubuntu:
User user1@ubuntu successfully registered
ejabberd-15.11$
```

```
ejabberd-15.11$ sudo bin/ejabberdctl registered_users ubuntu  
admin  
user1  
ejabberd-15.11$
```



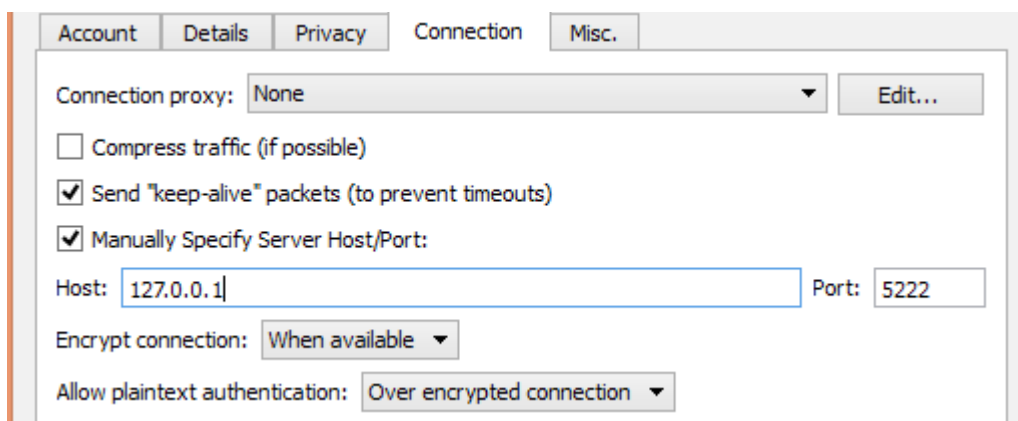
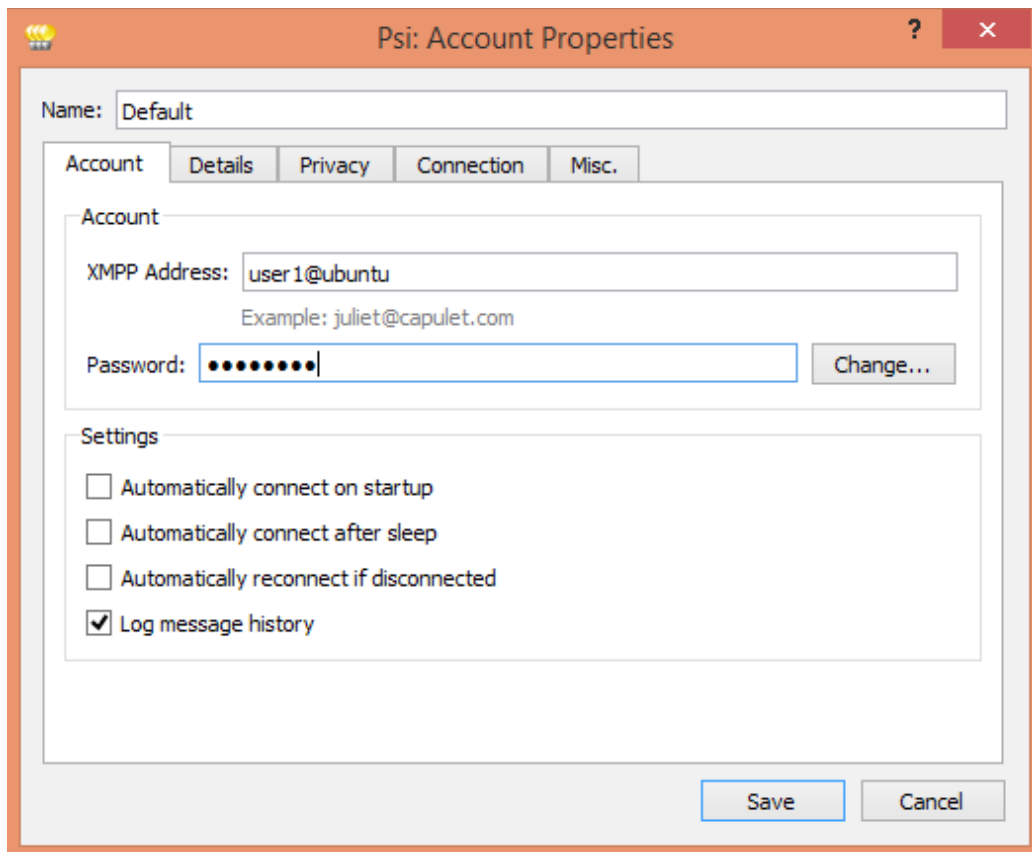
Psi: Add Account

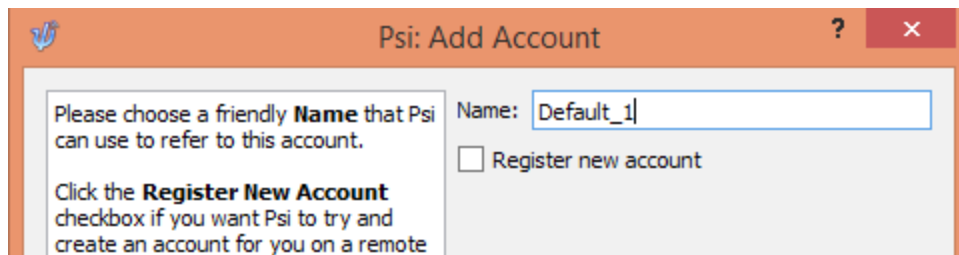
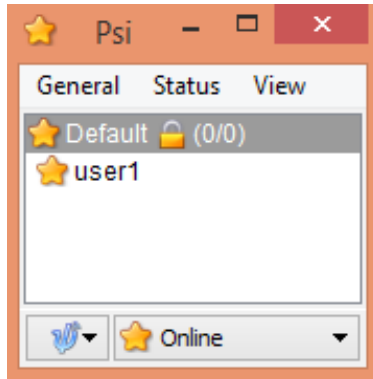
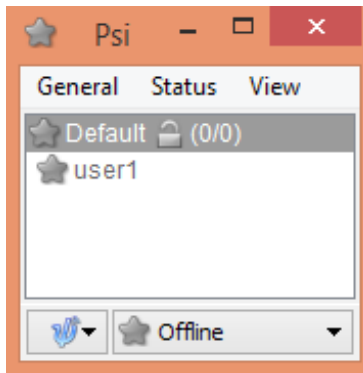
Please choose a friendly **Name** that Psi can use to refer to this account.

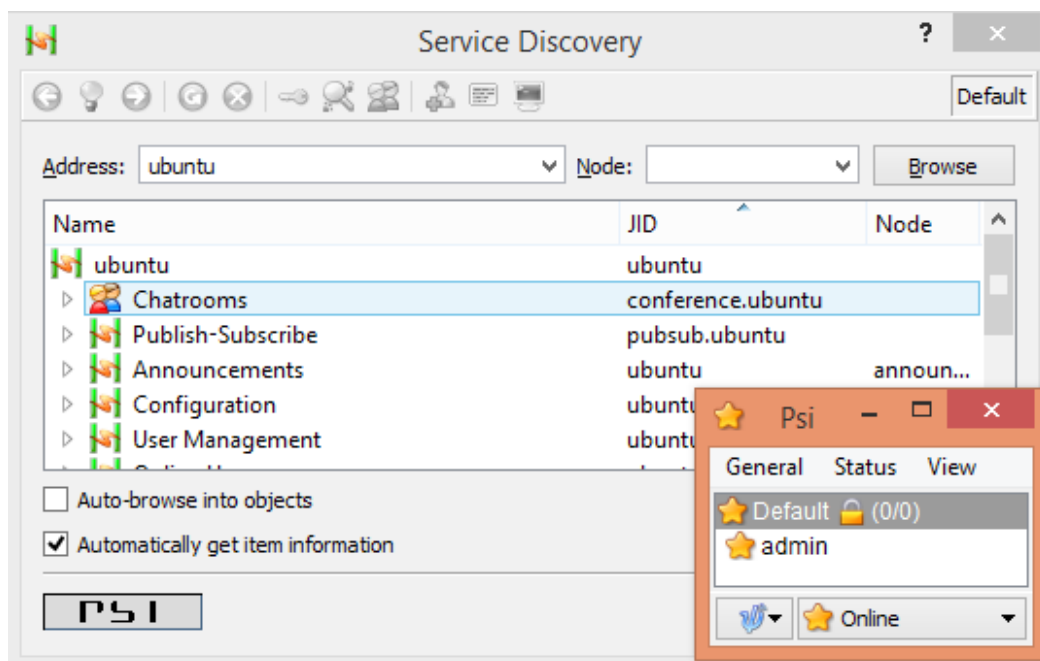
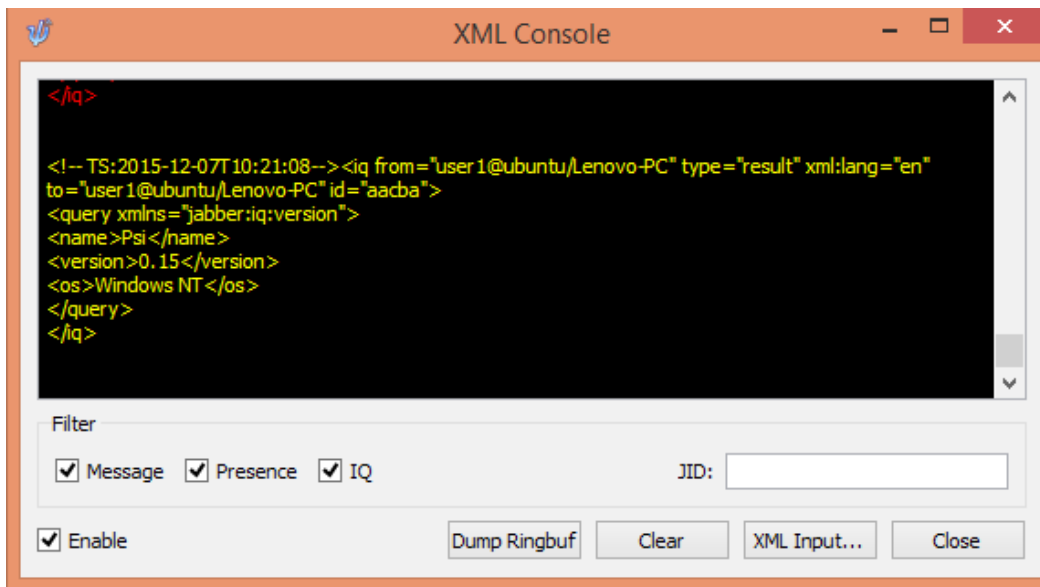
Click the **Register New Account** checkbox if you want Psi to try and create an account for you on a remote server. If you are adding an existing XMPP account then leave this box unchecked.

Name:

Register new account







```
###. =====
###'  SERVED HOSTNAMES

hosts:
- "ubuntu"
- "xmpp.example.com"
```

```
###. =====
###'  LISTENING PORTS

listen:
-
  port: 5222
  module: ejabberd_c2s
  certfile: "/opt/ejabberd-15.11/conf/server.pem"
  starttls: true
```

```
###. =====
###'  AUTHENTICATION

auth_method: internal
## auth_method: external
## auth_method: odbc
## auth_method: pam
## auth_method: ldap
```



```
##  
## Anonymous login support:  
##   auth_method: anonymous  
##   anonymous_protocol: sasl_anon | login_anon | both  
##   allow_multiple_connections: true | false
```

```
###. =====  
###'  DATABASE SETUP  
## MySQL server:  
## PostgreSQL server:  
## SQLite:  
## ODBC compatible or MSSQL server:
```

Chapter 11 - Git Hosting

Access

Projects limit

Can create group



Admin



Welcome to GitLab!

Self hosted Git management application.



You don't have access to any projects right now.
You can create up to **10 projects**.

[+ NEW PROJECT](#)

Project path

Import project from

Description (optional)

ubuntu-cookbook-gitlab
sample repo

★ 0

```
ubuntu@ubuntu:~/git-hooks-repo/html$ git commit -a -m "deployed using hooks"
Post commit hook started
Exporting repository contents
"Backup existing setup"
"Deploying latest code"
[master 40b9322] deployed using hooks
1 file changed, 1 insertion(+), 1 deletion(-)
```

← → ↻ 127.0.0.1:8081



Deployed using git hook

```
ubuntu@ubuntu:~/mynewproject$ git status
On branch master

Initial commit

Untracked files:
  (use "git add <file>..." to include in what will be committed)

        index.html
        main.css
        main.js

nothing added to commit but untracked files present (use "git add" to track)
```

```
ubuntu@ubuntu:~/mynewproject$ git add .
ubuntu@ubuntu:~/mynewproject$ git status
On branch master

Initial commit

Changes to be committed:
  (use "git rm --cached <file>..." to unstage)

        new file:   index.html
        new file:   main.css
        new file:   main.js
```

```
ubuntu@ubuntu:~/mynewproject$ git commit -m "First commit"
[master (root-commit) 4459fcc] First commit
 3 files changed, 0 insertions(+), 0 deletions(-)
 create mode 100644 index.html
 create mode 100644 main.css
 create mode 100644 main.js
ubuntu@ubuntu:~/mynewproject$
```


```
ubuntu@ubuntu:~/mynewproject$ git status
On branch master
Changes not staged for commit:
  (use "git add <file>..." to update what will be committed)
  (use "git checkout -- <file>..." to discard changes in working directory)

        modified:   index.html


no changes added to commit (use "git add" and/or "git commit -a")
```

```
ubuntu@ubuntu:~/mynewproject$ git diff index.html
diff --git a/index.html b/index.html
index e69de29..398a696 100644
--- a/index.html
+++ b/index.html
@@ -0,0 +1,9 @@
+<!DOCTYPE html>
+<html>
+<head>
+  <title>Git demo</title>
+</head>
+<body>
+  <h2>My new project :)</h2>
+</body>
+</html>
```

Owner

 sawantuday ▾



Repository name

/ mynewproject 

Great repository names are short and memorable. Need inspiration? How about **potential-spork**.


Description (optional)

Sample Git repository for Ubuntu Cookbook

-
-  **Public**
Anyone can see this repository. You choose who can commit.
-  **Private**
You choose who can see and commit to this repository.

-
- Initialize this repository with a README**
This will let you immediately clone the repository to your computer. Skip this step if you're importing an existing repository.

Add .gitignore: **None** ▾

Add a license: **None** ▾ 

...or create a new repository on the command line

```
echo # mynewproject >> README.md
git init
git add README.md
git commit -m "first commit"
git remote add origin https://github.com/sawantuday/mynewproject.git
git push -u origin master
```

...or push an existing repository from the command line

```
git remote add origin https://github.com/sawantuday/mynewproject.git
git push -u origin master
```

```
ubuntu@ubuntu:~/mynewproject$ git remote add origin https://github.com/sawantuday/mynewproject.git
ubuntu@ubuntu:~/mynewproject$ git push -u origin master
Username for 'https://github.com': sawantuday
Password for 'https://sawantuday@github.com':
Counting objects: 3, done.
Compressing objects: 100% (2/2), done.
Writing objects: 100% (3/3), 225 bytes | 0 bytes/s, done.
Total 3 (delta 0), reused 0 (delta 0)
To https://github.com/sawantuday/mynewproject.git
 * [new branch]      master -> master
Branch master set up to track remote branch master from origin.
```

```
ubuntu@ubuntu:~/local_copy_2$ git add .
ubuntu@ubuntu:~/local_copy_2$ git commit -m "main.php created with comments"
[master e84e941] main.php created with comments
 1 file changed, 1 insertion(+)
 create mode 100644 main.php
ubuntu@ubuntu:~/local_copy_2$
```

```
ubuntu@ubuntu:~/local_copy_2$ git push origin master
Username for 'https://github.com': sawantuday
Password for 'https://sawantuday@github.com':
To https://github.com/sawantuday/mynewproject.git
 ! [rejected]        master -> master (fetch first)
error: failed to push some refs to 'https://github.com/sawantuday/mynewproject.g
it'
hint: Updates were rejected because the remote contains work that you do
hint: not have locally. This is usually caused by another repository pushing
hint: to the same ref. You may want to first integrate the remote changes
hint: (e.g., 'git pull ...') before pushing again.
hint: See the 'Note about fast-forwards' in 'git push --help' for details.
```

```
ubuntu@ubuntu:~/local_copy_2$ git pull origin master
remote: Counting objects: 3, done.
remote: Compressing objects: 100% (2/2), done.
remote: Total 3 (delta 0), reused 3 (delta 0), pack-reused 0
Unpacking objects: 100% (3/3), done.
From https://github.com/sawantuday/mynewproject
 * branch                master       -> FETCH_HEAD
 4459fcc..585f879       master       -> origin/master
Merge made by the 'recursive' strategy.
 index.php | 1 +
 1 file changed, 1 insertion(+)
 create mode 100644 index.php
```



```
Unpacking objects: 100% (3/3), done.
From https://github.com/sawantuday/mynewproject
* branch          master      -> FETCH_HEAD
  e762fed..6e3e1f4 master      -> origin/master
Auto-merging index.php
CONFLICT (content): Merge conflict in index.php
Automatic merge failed; fix conflicts and then commit the result.
ubuntu@ubuntu:~/local_copy_2$
```

```
<<<<<< HEAD
// Modifications by user 2 index.php
// generating conflicts
=====
// Modifications by user 1 inde.php
>>>>>> 6e3e1f4f6360d0b2a5f1eab6f8c1f1aedc2135d4
```

New user

Account

Name

* required

Username

* required

Email

* required

Password

Password

**Reset link will be generated and sent to the user.
User will be forced to set the password on first sign in.**

Chapter 12 - Collaboration Tools

Beginning of Town Square

Welcome to Town Square!

This is the first channel teammates see when they sign up - use it for posting updates everyone needs to know.

 Invite others to this team  Set a header

Write a message...

Team Invite Link



Send teammates the link below for them to sign-up to this team site.


```
http://54.169.15.171:8065/signup_user_complete/?  
id=cwh9amzt6inq5f7q4pxu1bucfo
```


Copy Link


Close



Name ▲




 Documents


 Photos

 ownCloud_User_Manual.pdf

2 folders and 1 file



-  Upload
-  Text file
-  Folder

 ownCloud_User_Manual.pdf

Files

- Files
- Activity
- Documents
- Gallery
- Apps

Shared by link

Documents

Photos

ownCloud_User_Manual.pdf

Username Password test, admin Create

Username	Full Name	Password	Groups	Group Admin for
A admin	admin	••••••	admin	no group
U uday	uday	••••••	test, admin	no group

```
ubuntu@ubuntu:~$ vncserver

You will require a password to access your desktops.

Password:
Verify:

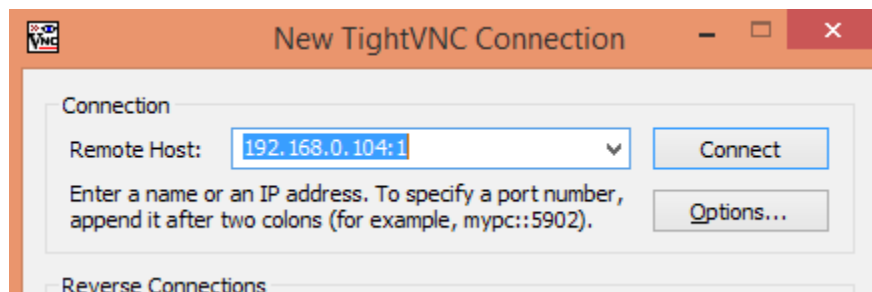
New 'ubuntu:1 (ubuntu)' desktop is ubuntu:1

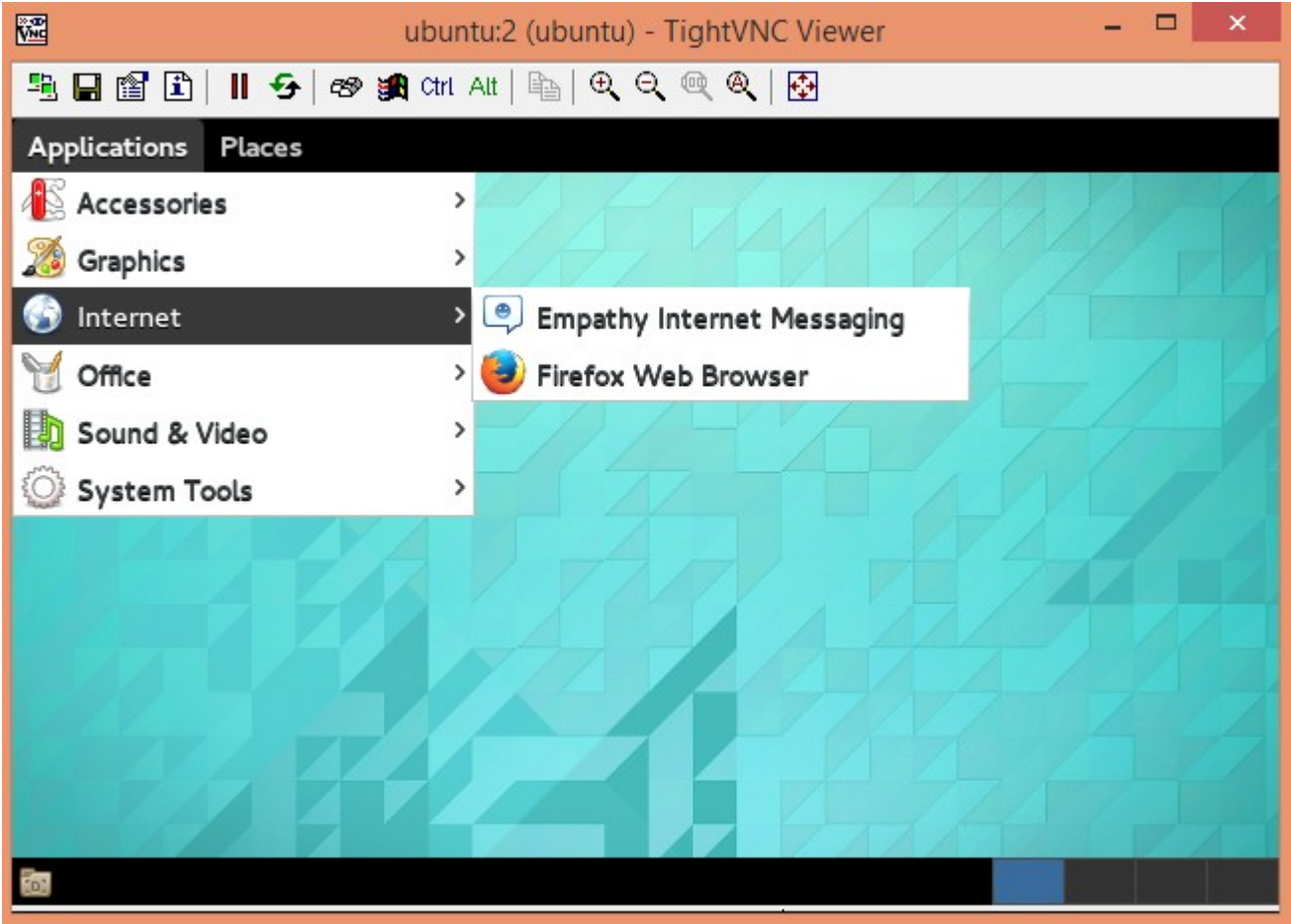
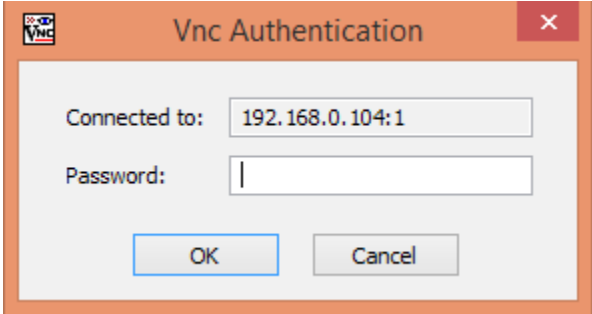
Creating default startup script /home/ubuntu/.vnc/xstartup
Starting applications specified in /home/ubuntu/.vnc/xstartup
Log file is /home/ubuntu/.vnc/ubuntu:1.log
```

```
ubuntu@ubuntu:~$
ubuntu@ubuntu:~$ vncserver -geometry 1366x768 -depth 24

New 'ubuntu:1 (ubuntu)' desktop is ubuntu:1

Starting applications specified in /home/ubuntu/.vnc/xstartup
Log file is /home/ubuntu/.vnc/ubuntu:1.log
```






```
ubuntu@ubuntu:~$ vncserver -geometry 640x480 -depth 24

New 'ubuntu:1 (ubuntu)' desktop is ubuntu:1

Starting applications specified in /home/ubuntu/.vnc/xstartup
Log file is /home/ubuntu/.vnc/ubuntu:1.log

ubuntu@ubuntu:~$ vncserver -geometry 640x480 -depth 24

New 'ubuntu:2 (ubuntu)' desktop is ubuntu:2

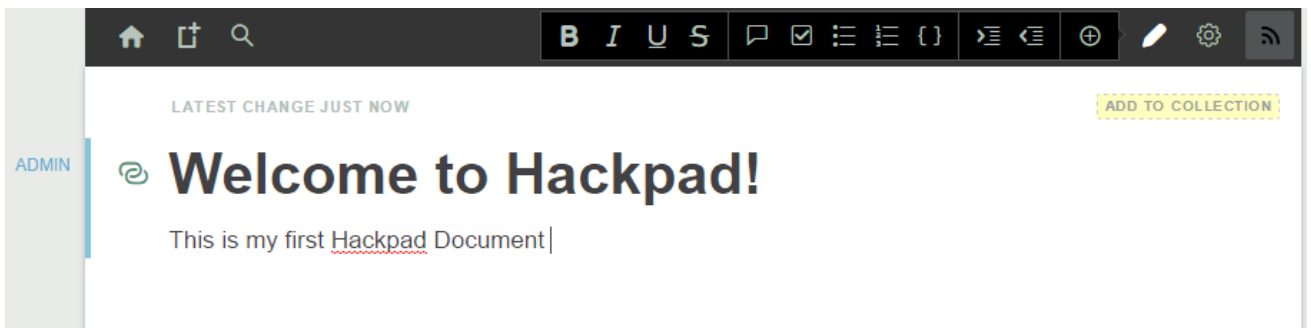
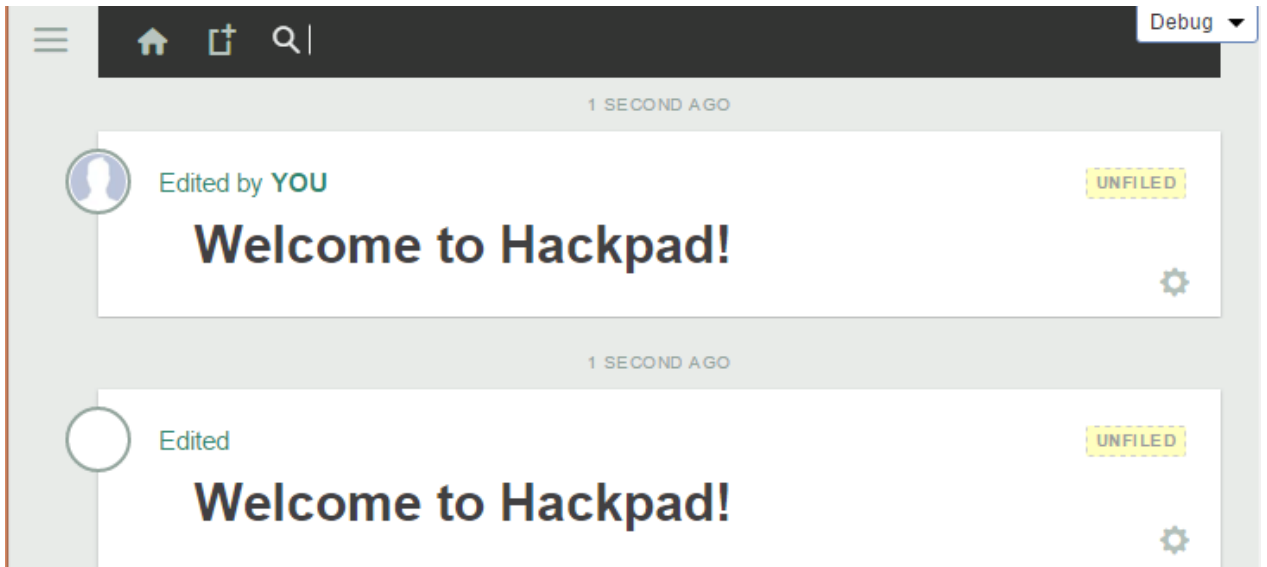
Starting applications specified in /home/ubuntu/.vnc/xstartup
Log file is /home/ubuntu/.vnc/ubuntu:2.log
```

```
ubuntu@ubuntu:~/hackpad$ ./contrib/scripts/setup-mysql-db.sh
Creating database hackpad...
Enter password:
Granting priviliges...
Enter password:
Success
ubuntu@ubuntu:~/hackpad$
```

```
ubuntu@ubuntu:~/hackpad$
ubuntu@ubuntu:~/hackpad$ ./bin/run.sh
./bin/run.sh: line 30: /home/ubuntu/hackpad/etherpad/data/etherpad.pid: No such
file or directory
Maximum ram: 1701M
Maximum thread count: 283
Using config file: ./etc/etherpad.local.properties
OpenJDK 64-Bit Server VM warning: Cannot open file ./data/logs/backend/jvm-gc.lo
g due to No such file or directory

Using mysql database type.
Establishing mysql connection (this may take a minute)...
mysql connection established.
Building cache for live migrations...
HTTP server listening on http://localhost:9000/
```

```
mysql>
mysql> select * from hackpad.email_signup;
+-----+-----+-----+-----+
| email          | passwordHash          |
| token         | fullName | createdAt          |
+-----+-----+-----+-----+
| admin@localhost.local | $2a$10$D61cP1yEInTmXPQbbG1cxuCGpvDLIvp1F9rW7WvoQtOyKat
NCqHOC | PgEJoGAiL3E2ZD12FqMc | admin          | 2016-01-08 11:54:13 |
+-----+-----+-----+-----+
1 row in set (0.00 sec)
```



Home Share Search **B I U S** [Icons]

LATEST CHANGE JUST NOW

ADMIN

ADMIN [Avatar]

UDAY [Avatar]

Welcome to Hackpad!

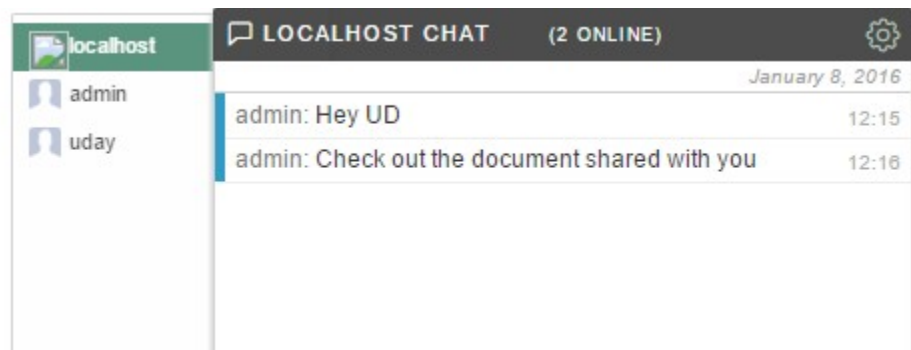
This is my first Hackpad Document

I am editing this document with [admin](#) :)

+ name / email

[Avatar] WITH UDAY

- [Avatar] admin
- [Avatar] uday



Mattermost

All team communication in one place,
searchable and accessible anywhere

[Create Team](#)

[Find my teams](#)

Team Name

Name your team in any language. Your team name shows in menus and headings.

Next >

Team URL

Choose the web address of your new team:

- Short and memorable is best
- Use lowercase letters, numbers and dashes
- Must start with a letter and can't end in a dash

Next >

Chapter 13 - Performance Monitoring

```
ubuntu@ubuntu:~$ netstat -r
Kernel IP routing table
Destination      Gateway          Genmask         Flags   MSS Window  irtt Iface
default          10.0.2.1        0.0.0.0        UG      0 0        0 eth0
10.0.2.0         *                255.255.255.0  U       0 0        0 eth0
172.17.0.0       *                255.255.0.0   U       0 0        0 docker0
ubuntu@ubuntu:~$
```

```
ubuntu@ubuntu:~$ netstat -s
Ip:
  151192 total packets received
  0 forwarded
  0 incoming packets discarded
  151190 incoming packets delivered
  151392 requests sent out
  4 outgoing packets dropped
Icmp:
  38 ICMP messages received
  0 input ICMP message failed.
```

```
ubuntu@ubuntu:~$ sudo lsof -i
COMMAND  PID   USER  FD  TYPE DEVICE SIZE/OFF NODE NAME
rpcbind  711   root  6u  IPv4 10803  0t0    UDP *:sunrpc
rpcbind  711   root  7u  IPv4 10806  0t0    UDP *:858
rpcbind  711   root  8u  IPv4 10807  0t0    TCP *:sunrpc (LISTEN)
rpcbind  711   root  9u  IPv6 10808  0t0    UDP *:sunrpc
rpcbind  711   root 10u  IPv6 10809  0t0    UDP *:858
```

```

ubuntu@ubuntu:~$ sar -n ALL 1 5
Linux 3.16.0-30-generic (ubuntu)          01/23/2016          _x86_64_          (2 CPU)

09:41:54 AM      IFACE      rxpck/s      txpck/s      rxkB/s      txkB/s      rxcmp/s      txcmp/s
s rxmcst/s      %ifutil
09:41:55 AM      eth0        0.00         0.00         0.00         0.00         0.00         0.00
0          0.00         0.00
09:41:55 AM      docker0     0.00         0.00         0.00         0.00         0.00         0.00
0          0.00         0.00
09:41:55 AM      lo         0.00         0.00         0.00         0.00         0.00         0.00
0          0.00         0.00

```

```

ubuntu@ubuntu:~$ collectl -s sn
defined(@array) is deprecated at /usr/share/collectl/formatit.ph line 3149.
(Maybe you should just omit the defined()?)
waiting for 1 second sample...
#<-----Network-----><-----Sockets----->
#  KBIn  PktIn  KBOut  PktOut  Tcp  Udp  Raw  Frag
   0     6     0     0    71   0    0    0
   1    10     1     8    71   0    0    0
   0     8     0     3    71   0    0    0

```

```

ubuntu@ubuntu:~$ vmstat
procs -----memory----- ---swap-- -----io----- -system-- -----cpu-----
 r  b   swpd   free   buff  cache   si   so   bi   bo   in   cs  us  sy  id  wa  st
 1  0     0 3123824 27100 300008   0   0   35   9   66  94  1  1 98  1
0
ubuntu@ubuntu:~$

```



```

ubuntu@ubuntu:~$ vmstat -D
      27 disks
       3 partitions
    18203 total reads
     4881 merged reads
  1232378 read sectors
 2471384 milli reading
     7315 writes
     3128 merged writes

```

```

ubuntu@ubuntu:~$ lsblk
NAME                                MAJ:MIN RM   SIZE RO TYPE MOUNTPOINT
sda                                  8:0    0    20G  0 disk
├─sda1                               8:1    0   243M  0 part /boot
├─sda2                               8:2    0     1K  0 part
└─sda5                               8:5    0   19.8G  0 part
   ├─ubuntu--vg-root (dm-0)          252:0    0   18.8G  0 lvm /
   └─ubuntu--vg-swap_1 (dm-1)       252:1    0   1020M  0 lvm [SWAP]
ubuntu@ubuntu:~$ vmstat -p sda5
sda5      reads  read sectors  writes  requested writes
          7098    625450        2026    168776

```

```

ubuntu@ubuntu:~$ iostat
Linux 3.16.0-30-generic (ubuntu)          01/23/2016      _x86_64_          (2 CPU)

avg-cpu:  %user   %nice %system %iowait  %steal   %idle
           0.62    0.04   1.07   0.53    0.00   97.74

Device:            tps    kB_read/s    kB_wrtn/s    kB_read    kB_wrtn
sda                 1.88         58.81         15.84      314884      84806
dm-0                 3.14         58.23         15.84      311785      84800
dm-1                 0.04          0.17          0.00         896         0

```

```

ubuntu@ubuntu:~$ sudo lsof -c sshd
COMMAND  PID  USER  FD  TYPE  DEVICE  SIZE/OFF  NODE  NAME
sshd    1254  root  cwd  DIR   252,0    4096      2  /
sshd    1254  root  rtd  DIR   252,0    4096      2  /
sshd    1254  root  txt  REG   252,0   766784   11349 /usr/sbin/sshd
sshd    1254  root  mem  REG   252,0    47712   655587 /lib/x86_64-1
linux-gnu/libnss_files-2.19.so

```

```

ubuntu@ubuntu:~$ df -h
Filesystem      Size  Used Avail Use% Mounted on
/dev/mapper/ubun--vg-root 19G  2.8G   15G  16% /
none            4.0K   0  4.0K   0% /sys/fs/cgroup
udev           2.0G  4.0K  2.0G   1% /dev
tmpfs          396M  604K  395M   1% /run
none           5.0M   0  5.0M   0% /run/lock
none           2.0G   0  2.0G   0% /run/shm
none           100M   0  100M   0% /run/user
/dev/sda1      236M  38M  186M  17% /boot

```

```

ubuntu@ubuntu:~$ sar -d 1
Linux 3.16.0-30-generic (ubuntu)          01/23/2016      _x86_64_          (2 CPU)

10:10:33 AM      DEV          tps  rd_sec/s  wr_sec/s  avgrq-sz  avgqu-sz   await
t      svctm      %util
10:10:34 AM      dev8-0        0.00    0.00    0.00    0.00    0.00    0.0
0      0.00    0.00
10:10:34 AM      dev252-0     0.00    0.00    0.00    0.00    0.00    0.0
0      0.00    0.00
10:10:34 AM      dev252-1     0.00    0.00    0.00    0.00    0.00    0.0
0      0.00    0.00

```

```
Running the test with following options:  
Number of threads: 4  
Random number generator seed is 0 and will be ignored
```

```
Primer numbers limit: 20000
```

```
Threads started!
```

```
General statistics:
```

total time:	15.8695s
total number of events:	10000
total time taken by event execution:	63.4510s
response time:	
min:	2.72ms
avg:	6.35ms
max:	33.44ms
approx. 95 percentile:	11.73ms

```
Threads started!
```

```
Operations performed: 102400 (1663868.39 ops/sec)
```

```
102400.00 MB transferred (1663868.39 MB/sec)
```

```
General statistics:
```

total time:	0.0615s
total number of events:	102400
total time taken by event execution:	0.0569s

```

ubuntu@ubuntu:~$ sysbench --test=fileio --file-total-size=15G --file-num=15 prep
are
sysbench 0.5: multi-threaded system evaluation benchmark

15 files, 1048576Kb each, 15360Mb total
Creating files for the test...
Extra file open flags: 0
Creating file test_file.0
Creating file test_file.1

```

```

Operations performed: 0 reads, 10000 writes, 1500 Other = 11500 Total
Read 0b Written 39.062Mb Total transferred 39.062Mb (1.2449Mb/sec)
318.69 Requests/sec executed

```

General statistics:

```

total time: 31.3789s
total number of events: 10000
total time taken by event execution: 0.1245s

```

```

top - 20:22:53 up 10:53, 2 users, load average: 0.25, 0.52, 0.53
Tasks: 107 total, 3 running, 102 sleeping, 2 stopped, 0 zombie
%Cpu(s): 9.1 us, 13.1 sy, 0.0 ni, 54.8 id, 0.0 wa, 0.0 hi, 22.9 si, 0.0 st
KiB Mem: 4047976 total, 657272 used, 3390704 free, 40836 buffers
KiB Swap: 1044476 total, 0 used, 1044476 free. 465296 cached Mem

```

PID	USER	PR	NI	VIRT	RES	SHR	S	%CPU	%MEM	TIME+	COMMAND
8292	ubuntu	20	0	40016	12268	6448	R	80.8	0.3	1:44.48	python
8	root	20	0	0	0	0	S	17.2	0.0	0:25.68	rcuos/0
3	root	20	0	0	0	0	S	2.3	0.0	0:04.27	ksoftirqd/0
7	root	20	0	0	0	0	S	1.3	0.0	0:18.50	rcu_sched

```

top - 20:31:17 up 11:01,  2 users,  load average: 0.27, 0.19, 0.36
Tasks: 106 total,   3 running, 101 sleeping,   2 stopped,   0 zombie
%Cpu0  : 24.4 us, 24.1 sy,  0.0 ni,  1.3 id,  0.0 wa,  0.0 hi, 50.2 si,  0.0 st
%Cpu1  :  0.0 us,  1.4 sy,  0.0 ni, 98.6 id,  0.0 wa,  0.0 hi,  0.0 si,  0.0 st
KiB Mem:  4047976 total,  658196 used, 3389780 free,   40960 buffers
KiB Swap: 1044476 total,    0 used, 1044476 free.  465456 cached Mem

```

PID	USER	PR	NI	VIRT	RES	SHR	S	%CPU	%MEM	TIME+	COMMAND
8292	ubuntu	20	0	40016	12268	6448	R	88.4	0.3	2:41.84	python
8	root	20	0	0	0	0	S	10.6	0.0	0:36.30	rcuos/0

PID	USER	PR	NI	VIRT	RES	SHR	S	%CPU	%MEM	TIME+	COMMAND
8292	ubuntu	20	0	40016	12268	6448	R	87.6	0.3	3:30.06	python
8	root	20	0	0	0	0	S	10.9	0.0	0:45.80	rcuos/0
3	root	20	0	0	0	0	S	1.3	0.0	0:06.15	ksoftirqd/0
7	root	20	0	0	0	0	S	0.3	0.0	0:25.41	rcu_sched
9	root	20	0	0	0	0	R	0.3	0.0	0:12.98	rcuos/1
1725	ubuntu	20	0	105744	4900	3824	S	0.3	0.1	0:04.17	sshd
8383	ubuntu	20	0	24828	2976	2540	R	0.3	0.1	0:00.35	top

```

1  [|||||] 43.1%] Tasks: 40, 29 thr; 1 running
2  [|||||] 31.4%] Load average: 0.14 0.25 0.15
Mem[|||||] 577/3953MB] Uptime: 00:06:31
Swp[ ] 0/1019MB]

```

PID	USER	PRI	NI	VIRT	RES	SHR	S	CPU%	MEM%	TIME+	Command
2171	ubuntu	20	0	40016	12240	6420	S	51.1	0.3	0:04.12	python -m SimpleH
2172	ubuntu	20	0	25744	3568	3032	R	2.3	0.1	0:00.17	htop
918	root	20	0	251M	15012	12492	S	0.8	0.4	0:01.26	/usr/bin/docker -
1225	mysql	20	0	1108M	461M	13744	S	0.0	11.7	0:03.57	/usr/sbin/mysqld

```

ubuntu@ubuntu:~$ pidstat -C mysql
Linux 3.16.0-30-generic (ubuntu)          01/16/2016          _x86_64_          (2 CPU)

08:39:30 PM    UID        PID    %usr %system %guest    %CPU   CPU   Command
08:39:30 PM   105       8458    0.00   0.00   0.00    0.00    1  mysqld
ubuntu@ubuntu:~$

```

```

ubuntu@ubuntu:~$ vmstat 1
procs -----memory----- --swap--  -----io-----  -system--  -----cpu-----
 r  b   swpd   free   buff  cache   si   so   bi   bo   in   cs  us  sy  id  wa  st
 1  0     0 2933084 41284 466000    0    0    6    5   27   33   1   0  98   0
 0
 0  0     0 2933068 41284 466000    0    0    0    0   40   77   0   1  99   0
 0
 0  0     0 2933068 41284 466000    0    0    0    0   25   57   0   0 100   0
 0

```

```

ubuntu@ubuntu:~$ mpstat -P 0,1
Linux 3.16.0-30-generic (ubuntu)          01/16/2016          _x86_64_          (2 CPU)

08:50:32 PM  CPU    %usr   %nice   %sys %iowait    %irq   %soft  %steal  %guest
      %gnice   %idle
08:50:32 PM    0    0.36   0.00   0.36   0.15   0.00   0.55   0.00   0.00
      0.00  98.58
08:50:32 PM    1    2.24   0.00   0.22   0.09   0.00   0.00   0.00   0.00
      0.00  97.45

```

```

ubuntu@ubuntu:~$ sar -u -P ALL
Linux 3.16.0-30-generic (ubuntu)          01/23/2016          _x86_64_          (2 CPU)

08:34:56 AM          LINUX RESTART

08:35:01 AM          CPU          %user          %nice          %system          %iowait          %steal          %idle
08:45:01 AM          all          2.38           0.00           6.99           1.20           0.00           89.42
08:45:01 AM          0           1.32           0.00           10.16          1.35           0.00           87.17
08:45:01 AM          1           3.38           0.00           4.00           1.07           0.00           91.55

Average:             CPU          %user          %nice          %system          %iowait          %steal          %idle
Average:             all          2.38           0.00           6.99           1.20           0.00           89.42
Average:             0           1.32           0.00           10.16          1.35           0.00           87.17
Average:             1           3.38           0.00           4.00           1.07           0.00           91.55

```

```

ubuntu@ubuntu:~$ sar -u 2 5
Linux 3.16.0-30-generic (ubuntu)          01/23/2016          _x86_64_          (2 CPU)

08:49:30 AM          CPU          %user          %nice          %system          %iowait          %steal          %idle
08:49:32 AM          all          0.25           0.00           0.00           0.00           0.00           99.75
08:49:34 AM          all          0.00           0.00           0.25           0.00           0.00           99.75
08:49:36 AM          all          0.00           0.00           0.25           0.00           0.00           99.75
08:49:38 AM          all          0.00           0.00           0.00           0.00           0.00           100.00
08:49:40 AM          all          0.25           0.00           0.25           0.00           0.00           99.50
Average:             all          0.10           0.00           0.15           0.00           0.00           99.75

```

```

top - 09:03:20 up 29 min,  2 users,  load average: 0.00, 0.01, 0.05
Tasks: 114 total,  1 running, 113 sleeping,  0 stopped,  0 zombie
%Cpu(s):  0.3 us,  0.2 sy,  0.0 ni, 99.5 id,  0.0 wa,  0.0 hi,  0.0 si,  0.0 st
KiB Mem:  4047976 total,  914372 used,  3133604 free,  26112 buffers
KiB Swap: 1044476 total,    0 used,  1044476 free.  297272 cached Mem

```

PID	USER	PR	NI	VIRT	RES	SHR	S	%CPU	%MEM	TIME+	COMMAND
1225	mysql	20	0	1134984	473080	13744	S	0.7	11.7	0:08.93	mysqld
2171	ubuntu	20	0	40016	12240	6420	S	0.3	0.3	1:06.74	python
2374	ubuntu	20	0	24828	2972	2528	R	0.3	0.1	0:00.55	top
1	root	20	0	33744	4316	2684	S	0.0	0.1	0:05.08	init
2	root	20	0	0	0	0	S	0.0	0.0	0:00.01	kthreadd
3	root	20	0	0	0	0	S	0.0	0.0	0:03.36	ksoftirqd/0

```
ubuntu@ubuntu:~$ vmstat
procs -----memory----- ---swap-- -----io----- -system-- -----cpu-----
 r b  swpd  free  buff  cache   si   so    bi    bo    in   cs  us  sy  id  wa  st
 1  0      0 3133432 26204 297436    0    0    78    19   121  156  1  2  95  1
0
```

```
ubuntu@ubuntu:~$ vmstat -s
4047976 K total memory
 915040 K used memory
 586468 K active memory
251360 K inactive memory
3132936 K free memory
 26288 K buffer memory
 297540 K swap cache
1044476 K total swap
 0 K used swap
1044476 K free swap
```

```
ubuntu@ubuntu:~$ free -h
              total        used        free      shared  buff/cache   available
Mem:           992M         37M         708M         3.2M         245M         921M
Swap:          1.0G           0B          1.0G
```



```

ubuntu@ubuntu:~$ sar -rS 1 5
Linux 3.16.0-30-generic (ubuntu)          01/23/2016          _x86_64_          (2 CPU)

09:19:16 AM kbmemfree kbmemused  %memused kbbuffers  kbcached  kbcommit  %commi
t kbactive  kbinact  kbdirty
09:19:17 AM   3132956    915020    22.60    26416    297676    910312    17.8
8    586880    251420     40

09:19:16 AM kbswpfree kbswpused  %swpused  kbswpcad  %swpcad
09:19:17 AM   1044476         0     0.00         0     0.00

```

```

ubuntu@ubuntu:~$ ifconfig
docker0  Link encap:Ethernet  HWaddr 56:84:7a:fe:97:99
         inet addr:172.17.42.1  Bcast:0.0.0.0  Mask:255.255.0.0
         UP BROADCAST MULTICAST  MTU:1500  Metric:1
         RX packets:0 errors:0 dropped:0 overruns:0 frame:0
         TX packets:0 errors:0 dropped:0 overruns:0 carrier:0
         collisions:0 txqueuelen:0
         RX bytes:0 (0.0 B)  TX bytes:0 (0.0 B)

eth0     Link encap:Ethernet  HWaddr 08:00:27:ea:fe:96
         inet addr:10.0.2.8  Bcast:10.0.2.255  Mask:255.255.255.0

```

```

ubuntu@ubuntu:~$ ifconfig -s
Iface  MTU Met  RX-OK RX-ERR RX-DRP RX-OVR    TX-OK TX-ERR TX-DRP TX-OVR Flg
docker0  1500 0      0      0      0      0 0      0      0      0 0 B
MU
eth0     1500 0    150716  0      0      0 151045  0      0      0 0 B
MRU
lo       65536 0      56      0      0      0 56      0      0      0 0 L
RU

```

```
ubuntu@ubuntu:~$ ping www.google.com -c 4
PING www.google.com (74.125.200.99) 56(84) bytes of data.
64 bytes from sa-in-f99.1e100.net (74.125.200.99): icmp_seq=1 ttl=44 time=1011 ms
64 bytes from sa-in-f99.1e100.net (74.125.200.99): icmp_seq=2 ttl=44 time=273 ms
64 bytes from sa-in-f99.1e100.net (74.125.200.99): icmp_seq=3 ttl=44 time=268 ms
64 bytes from sa-in-f99.1e100.net (74.125.200.99): icmp_seq=4 ttl=44 time=326 ms

--- www.google.com ping statistics ---
4 packets transmitted, 4 received, 0% packet loss, time 3012ms
rtt min/avg/max/mdev = 268.283/470.026/1011.957/313.726 ms, pipe 2
```

```
ubuntu@ubuntu:~$ sudo netstat -pltn
Active Internet connections (only servers)
Proto Recv-Q Send-Q Local Address           Foreign Address         State
PID/Program name
tcp        0      0 0.0.0.0:111             0.0.0.0:*               LISTEN
711/rpcbind
tcp        0      0 0.0.0.0:80              0.0.0.0:*               LISTEN
1487/nginx
tcp        0      0 0.0.0.0:38512            0.0.0.0:*               LISTEN
-
```

Chapter 14 - Centralized Authentication Service

```
ubuntu@ubuntu:~$ su uday
Password:
Creating directory '/home/users/uday'.
$
```

```
## hosts: Domains served by ejabberd.
## You can define one or several, for example:
## hosts:
##   - "example.net"
##   - "example.com"
##   - "example.org"
##
hosts:
- "ubuntu"
```

Account

XMPP Address:

Example: juliet@capulet.com

Password:

Configuring slapd

The DNS domain name is used to construct the base DN of the LDAP directory. For example, 'foo.example.org' will create the directory with 'dc=foo, dc=example, dc=org' as base DN.

DNS domain name:

example.com

<Ok>

Configuring slapd

The HDB backend is recommended. HDB and BDB use similar storage formats, but HDB adds support for subtree renames. Both support the same configuration options.

In either case, you should review the resulting database configuration for your needs. See /usr/share/doc/slapd/README.DB_CONFIG.gz for more details.

Database backend to use:

BDB

HDB

Configuring slapd

The obsolete LDAPv2 protocol is disabled by default in slapd. Programs and users should upgrade to LDAPv3. If you have old programs which can't use LDAPv3, you should select this option and 'allow bind_v2' will be added to your slapd.conf file.

Allow LDAPv2 protocol?

<Yes>

<No>

```
ubuntu@ubuntu:~$ sudo dpkg-reconfigure slapd
* Stopping OpenLDAP slapd [ OK ]
Moving old database directory to /var/backups:
- directory unknown... done.
Creating initial configuration... done.
Creating LDAP directory... done.
* Starting OpenLDAP slapd [ OK ]
Processing triggers for libc-bin (2.19-0ubuntu6.6) ...
ubuntu@ubuntu:~$
```

```
ubuntu@ubuntu:~$ ldapsearch -x
# extended LDIF
#
# LDAPv3
# base <> (default) with scope subtree
# filter: (objectclass=*)
# requesting: ALL
#
```

```
ubuntu@ubuntu:~$ ldapsearch -x -LLL -H ldap:/// -b dc=example,dc=com dn
dn: dc=example,dc=com

dn: cn=admin,dc=example,dc=com

ubuntu@ubuntu:~$
```

```
ubuntu@ubuntu:~$ ldapsearch -x -LLL -b dc=example,dc=com
dn: dc=example,dc=com
objectClass: top
objectClass: dcObject
objectClass: organization
o: example
dc: example

dn: cn=admin,dc=example,dc=com
objectClass: simpleSecurityObject
objectClass: organizationalRole
cn: admin
description: LDAP administrator
```

My LDAP Server

login



Warning: This web connection is unencrypted.

Login DN:

Password:

Anonymous

Home | Purge caches | Show Cache

My LDAP Server

schema search refresh info import export logout

Logged in as: cn=admin

dc=example,dc=com (1)

- cn=admin
- Create new entry here

Select a template for the creation process

- Templates:**
- Courier Mail: Account
 - Courier Mail: Alias
 - Generic: Address Book Entry
 - Generic: DNS Entry
 - Generic: LDAP Alias
 - Generic: Organisational Role
 - Generic: Organisational Unit
 - Samba: Domain
 - Samba: Group Mapping
 - Samba: Machine
 - Sendmail: Alias
 - Sendmail: Cluster
 - Sendmail: Domain
 - Sendmail: Relays


```
# /etc/nsswitch.conf
#
# Example configuration of GNU Name Service Switch functionality.
# If you have the `glibc-doc-reference' and `info' packages installed, try:
# `info libc "Name Service Switch"' for information about this file.

# pre_auth-client-config # passwd:          compat
passwd: files ldap
# pre_auth-client-config # group:          compat
group: files ldap
# pre_auth-client-config # shadow:         compat
shadow: files ldap
```



My LDAP Server ⌚

schema search refresh info import export logout

Logged in as: cn=admin

- dc=example, dc=com (2)
 - cn=admin
 - ou=users (2)
 - cn=admin
 - cn=uday
 - ★ Create new entry here