# Web Server Deployment

**bofei@fortinet.com**

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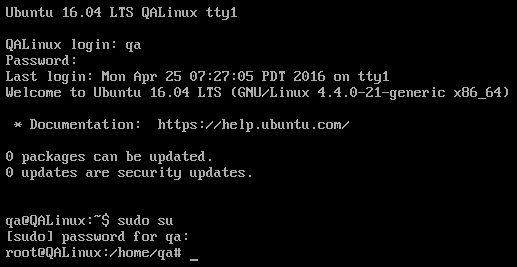
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## 1. Install Ubuntu Server 16.04

### (1) Enable privilege account



### (2) Enable the root account

#### 1) Enable root account and password

# passwd root

Input the password as indicated.

### (3) Set IP and make SSH service root account accessible

# ip link set ens160 up

# ip add add 10.106.129.12/24 dev ens160

# ip route add default via 10.106.129.254

Edit /etc/ssh/sshd\_config file to make it accessible by root account:

PermitRootLogin yes

Restart the ssh service:

# systemctl restart sshd

### (4) Change NIC name, and set IP address for it.

#### 1) Execute the following shell script

#!/bin/bash

interface\_list=`ip -o link|awk '{print $2}'|awk -F ":" '{print $1}'`

cmdToNetworkRule=""

count=0

for i in $interface\_list

do

echo $i|grep "lo" >/dev/null 2>/dev/null

if [[ $? == 1 ]]; then

currentMacAddress=`ip -o link show $i|awk -F "link/ether" '{print $2}'|awk '{print $1}'`

cmdToNetworkRule=$cmdToNetworkRule'SUBSYSTEM=="net", ACTION=="add", ATTR{address}=="'$currentMacAddress'", KERNEL=="'$i'", NAME="eth'$count'"\n'

let count=$count+1

fi

done

echo -e $cmdToNetworkRule > /etc/udev/rules.d/10-network.rules

#### 2) Configure IP address

Edit /etc/network/interfaces :

auto eth0

iface eth0 inet static

address 10.0.10.210

netmask 255.255.0.0

gateway 10.0.0.1

### (5) Modify DNS server address

Edit /etc/resolv.conf and /etc/resolvconf/resolv.conf.d/base:

nameserver 8.8.8.8

### (6) Enable routing forward

#### 1) Enable IPv4 forwarding

# echo "1" > /proc/sys/net/ipv4/ip\_forward

or

# sysctl -w net.ipv4.ip\_forward=1

#### 2) Enable IPv6 forwarding

# sysctl -w net.ipv6.conf.all.forwarding=1

#### 3) Add these two commands into /etc/rc.local

### (7) Configure vim

Add the following config into /etc/vim/vimrc

" Only do this part when compiled with support for autocommands

if has("autocmd")

augroup redhat

autocmd!

" In text files, always limit the width of text to 78 characters

autocmd BufRead \*.txt set tw=78

" When editing a file, always jump to the last cursor position

autocmd BufReadPost \*

\ if line("'\"") > 0 && line ("'\"") <= line("$") |

\ exe "normal! g'\"" |

\ endif

" don't write swapfile on most commonly used directories for NFS mounts or USB sticks

autocmd BufNewFile,BufReadPre /media/\*,/mnt/\* set directory=~/tmp,/var/tmp,/tmp

" start with spec file template

autocmd BufNewFile \*.spec 0r /usr/share/vim/vimfiles/template.spec

augroup END

endif

### (8) Reboot the system

# reboot

### (9) Install lrzsz

# apt-get install lrzsz

## 2. Configure Web Server

### (1) Install and configure nginx

#### 1) Install nginx

# apt install nginx

### (2) Install python-setuptools

# apt-get install python-setuptools

### (3) Install pip

# apt install python-pip

### (4) Install nodejs

# apt-get install python-software-properties

# curl -sL https://deb.nodesource.com/setup\_7.x | sudo -E bash -

# apt-get install nodejs

### (5) Install MySQL server

# apt-get install mysql-server

Enter the mysql server, and then execute following commands:

GRANT ALL PRIVILEGES ON \*.\* TO 'root'@'%' IDENTIFIED BY 'fortinet' WITH GRANT OPTION;

GRANT PROXY ON ''@'' TO 'root'@'%' WITH GRANT OPTION;

flush privileges;

Edit file "/etc/mysql/mysql.conf.d/mysqld.cnf", change bind-address to

bind-address = 0.0.0.0

Restart the mysql service

# systemctl restart mysql

### (6) Install mysql-python

# apt-get install libmysqld-dev

# apt-get install libmysqlclient-dev

# apt-get install python-dev

# pip install mysql-python

### (7) Install uwsgi

# pip install uwsgi