



Computer Systems Administration (IE2060)

2nd Year, 2nd Semester

Assignment

Firewall configurations

Submitted to

Sri Lanka Institute of Information Technology

Student Registration Number	Student Name with Initials
IT21093296	Dissanayake N.S.S.

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1. Installing Firewall

```
svr1@mlb-dc1-centos7:/home/svr1
File Edit View Search Terminal Help
[root@mlb-dc1-centos7 svr1]# yum install firewalld
Loaded plugins: fastestmirror, langpacks
Loading mirror speeds from cached hostfile
 * base: mirrors.bangmod.cloud
 * extras: centos.excellmedia.net
 * updates: centos.excellmedia.net
Resolving Dependencies
--> Running transaction check
--> Package firewalld.noarch 0:0.6.3-11.el7 will be updated
--> Processing Dependency: firewalld = 0.6.3-11.el7 for package: firewall-config-0.6.3-11.el7.noarch
--> Package firewalld.noarch 0:0.6.3-13.el7_9 will be an update
--> Processing Dependency: python-firewall = 0.6.3-13.el7_9 for package: firewalld-0.6.3-13.el7_9.noarch
--> Processing Dependency: firewalld-filesystem = 0.6.3-13.el7_9 for package: firewalld-0.6.3-13.el7_9.noarch
--> Running transaction check
--> Package firewall-config.noarch 0:0.6.3-11.el7 will be updated
--> Package firewall-config.noarch 0:0.6.3-13.el7_9 will be an update
--> Package firewalld-filesystem.noarch 0:0.6.3-11.el7 will be updated
--> Package firewalld-filesystem.noarch 0:0.6.3-13.el7_9 will be an update
--> Package python-firewall.noarch 0:0.6.3-11.el7 will be updated
--> Package python-firewall.noarch 0:0.6.3-13.el7_9 will be an update
--> Finished Dependency Resolution

Dependencies Resolved

=====
Package                Arch      Version              Repository           Size
=====
Updating:
firewalld               noarch    0.6.3-13.el7_9       updates              449 k
Updating for dependencies:
firewall-config         noarch    0.6.3-13.el7_9       updates              137 k
firewalld-filesystem   noarch    0.6.3-13.el7_9       updates               51 k
python-firewall         noarch    0.6.3-13.el7_9       updates              355 k
=====

Transaction Summary
=====
Upgrade 1 Package (+3 Dependent packages)

Total size: 993 k
Is this ok [y/d/N]: y
Downloading packages:
Running transaction check
Running transaction test
Transaction test succeeded
```

2. Enable firewall

```
Complete!
[root@mlb-dc1-centos7 svr1]# systemctl enable firewalld
[root@mlb-dc1-centos7 svr1]#
```

3. Check firewall state

```
[svr1@mlb-dc1-centos7 ~]$ firewall-cmd --state
running
```

4. Copping forward.csa.lk zone to user created zones from named

```
[root@mlb-dc1-centos7 zones]# cd /var/named
[root@mlb-dc1-centos7 named]# ls -al
total 48
-rw-r--r--. 1 root root 335 Oct 13 11:01 :
drwxrwx--T. 8 root named 4096 Oct 22 22:14 .
drwxr-xr-x. 23 root root 4096 Oct 20 18:58 ..
drwxr-x---. 7 root named 61 Sep 6 04:19 chroot
drwxr-x---. 7 root named 61 Sep 6 04:19 chroot_sdb
-rw-r--r--. 1 root root 0 Oct 13 05:00 csa.lk
drwxrwx---. 2 named named 75 Oct 20 19:26 data
drwxrwx---. 2 named named 60 Oct 17 22:26 dynamic
drwxrwx---. 2 root named 6 Mar 31 2020 dyndb-ldap
-rw-r--r--. 1 root root 280 Oct 22 22:08 forward.csa.lk
-rw-r--r--. 1 root root 12288 Oct 20 03:29 .forward.csa.lk.swp
-rw-r-----. 1 root named 2253 Apr 5 2018 named.ca
-rw-r--r--. 1 root root 0 Oct 13 05:02 named-checkzone
-rw-r-----. 1 root named 152 Dec 15 2009 named.empty
-rw-r-----. 1 root named 152 Jun 21 2007 named.localhost
-rw-r-----. 1 root named 168 Dec 15 2009 named.loopback
-rw-r--r--. 1 root root 335 Oct 20 02:49 reverse.csa.lk
-rw-r--r--. 1 root root 0 Oct 20 03:18 REVERSE.csa.lk
drwxrwx---. 2 named named 6 Feb 23 2022 slaves
[root@mlb-dc1-centos7 named]# cp reverse.csa.lk /etc/firewalld/zones
[root@mlb-dc1-centos7 named]# cp forward.csa.lk /etc/firewalld/zones
```

5. Checking available zones on user created zones

```
[root@mlb-dc1-centos7 named]# cd /etc/firewalld/zones
[root@mlb-dc1-centos7 zones]#
[root@mlb-dc1-centos7 zones]#
[root@mlb-dc1-centos7 zones]# ls -al
total 16
drwxr-x---. 2 root root 90 Oct 22 22:28 .
drwxr-x---. 7 root root 133 Oct 21 01:48 ..
-rw-r--r--. 1 root root 280 Oct 22 22:28 forward.csa.lk
-rw-r--r--. 1 root root 421 Oct 20 19:09 public.xml
-rw-r--r--. 1 root root 385 Oct 20 19:09 public.xml.old
-rw-r--r--. 1 root root 335 Oct 22 22:28 reverse.csa.lk
[root@mlb-dc1-centos7 zones]#
```

6. Adding ports to the firewall

```
[root@mlb-dc1-centos7 zones]# firewall-cmd --permanent --add-port=636/tcp
success
[root@mlb-dc1-centos7 zones]# firewall-cmd --permanent --add-port=161/tcp
success
[root@mlb-dc1-centos7 zones]# firewall-cmd --permanent --add-port=50000/tcp
success
[root@mlb-dc1-centos7 zones]# firewall-cmd --permanent --add-service=http
success
```

7. Adding https to firewall

```
[root@mlb-dc1-centos7 zones]# firewall-cmd --permanent --add-service=https
success
```