Configuration Files and Tree

https://campus.barracuda.com/doc/41116253/

The directory structure of Barracuda NG Firewall systems is split into organizational units. You will find the configuration files arranged in administrative subunits within subdirectories of the configuration root directory. This article provides information on the directories that contain system configuration files.

In this article:

Directories Containing Configuration Files

Configuration files for the system are contained in the following directories:

/opt/phion/config/configroot

The */opt/phion/config/configroot* directory contains all configuration files that are constantly changed. The configuration tree of NG Admin starts in this directory. The box configuration is retrieved from this directory by Barracuda NG Admin. This directory will only contain empty configuration files for a fresh Barracuda NG Firewall installation. If any service is added, the template files are copied from the corresponding directory at */opt/phion/modules/directory/box.*

The **Open configuration** column displays the file structure as it is in this directory.

/opt/phion/config/active

The */opt/phion/config/active* directory contains the active box configuration.

/opt/phion/modules/box

The */opt/phion/modules/box* directory contains all default configuration (*confdef*) files and required scripts for activation and verification. The directory itself is split into several subdirectories. Usually, a corresponding subdirectory for each configuration file is found in the */opt/phion/config/configroot* directory. Most subdirectories contain a *bin* directory with a verify and activate script or a binary or both.

Example for the directory structure:

```
[root@Bart:~]# cd /opt/phion/config/configroot/ [2005-10-07 16:57 UTC] [-root
```

```
shell-] [-powered by Cuda IT-] [root@Bart: /opt/phion/config/configroot]# ll
total 176 drwxr-xr-x 9 root root 4096 Oct 7 15:40 . drwxr-xr-x 8 root root
4096 Oct 7 15:40 .. -rw-r--r-- 1 root root 141 Oct 5 10:57 1 -rw------- 1
root root 421 Oct 5 10:31 boxadm.conf -rw------- 1 root root 146 Oct 5 10:31
boxadm.desc -rw-r--r-- 1 root root 131 Oct 5 10:31 boxadm.param -rw------- 1
root root 196 Oct 4 13:07 box.conf -rw------- 1 root root 131 Oct 4 13:07
box.desc -rw------- 1 root root 2580 Oct 4 13:07 boxkey.conf -rw------- 1
root root 137 Oct 4 13:07 boxkey.desc -rw-r--r-- 1 root root 131 Oct 4 13:07
boxkey.param -rw------- 1 root root 1490 Oct 4 13:07 boxnet.conf -rw------- 1
root root 135 Oct 4 13:07 boxnet.desc -rw-r--r-- 1 root root 131 Oct 4 13:07
boxnet.param drwxr-xr-x 2 root root 4096 Oct 4 13:07 boxother -rw------- 1
root root 139 Oct 4 13:07 boxother.desc -rw-r--r-- 1 root root 131 Oct 4
13:07 boxother.param -rw-r--r-- 1 root root 131 Oct 4 13:07 box.param -rw----
--- 1 root root 857 Oct 4 13:07 boxqos.conf -rw------- 1 root root 165 Oct 4
13:07 boxqos.desc -rw-r--r-- 1 root root 131 Oct 4 13:07 boxqos.param drwxr-
xr-x 2 root root 4096 Oct 4 13:07 boxsrv -rw------- 1 root root 142 Oct 4
13:07 boxsrv.desc -rw-r--r-- 1 root root 131 Oct 4 13:07 boxsrv.param -rw----
--- 1 root root 217 Oct 4 13:07 boxsys.conf -rw------- 1 root root 142 Oct 4
13:07 boxsys.desc -rw-r--r-- 1 root root 131 Oct 4 13:07 boxsys.param drwxr-
xr-x 2 root root 4096 Oct 7 15:07 data -rw------- 1 root root 106 Oct 4 13:07
data.desc -rw-r--r-- 1 root root 131 Oct 4 13:07 data.param drwxr-xr-x 3 root
root 4096 Oct 4 13:07 gdata -rw------- 1 root root 107 Oct 4 13:07 gdata.desc
-rw-r--r-- 1 root root 131 Oct 4 13:07 gdata.param drwxr-xr-x 3 root root
4096 Oct 4 04:51 LostAndFound -rw------- 1 root root 3352 Oct 4 13:07
masterpub.conf -rw------- 1 root root 167 Oct 4 13:07 masterpub.desc -rw-r--
r-- 1 root root 131 Oct 4 13:07 masterpub.param drwxr-xr-x 2 root root 4096
Oct 4 04:51 pool -rw------- 1 root root 1227 Oct 4 13:07 roles.conf rw-------
1 root root 164 Oct 4 13:07 roles.desc
```

This example shows the */opt/phion/config/configroot* directory containing the *boxnet.conf* file. In the */opt/phion/modules/box* directory, the boxnet subdirectory contains the *.conf* files and links to the activation and verification files.

The */opt/phion/modules/box* directory contains two important subdirectories:

- */opt/phion/modules/box/boxother*—This directory corresponds to **Box Misc**.
- */opt/phion/modules/box/boxsrv*—This directory corresponds to **Box Services**.

Generally, all box services, such as the Firewall, Event, and Statistics services, are located in *boxsrv*. Other configuration items, such as authentication schemes, bootloader, or box licenses, are located in *boxother*. The *confdef* file determines the look of a window in Barracuda NG Admin (input fields, labels, buttons).

/opt/phion/modules/box/boxother

When a node is opened in the **Box Misc.** branch, the configuration is read from the */opt/phion/modules/box/boxother* directory.

/opt/phion/modules/box/boxsrv

When a node is opened in the **Box Services** branch, the configuration is read from the */opt/phion/modules/box/boxsrv* directory.

Subdirectories for the Configuration Tree Directory

On every Barracuda NG Firewall system there is a configuration tree that contains all necessary information to keep the system up and running. The tree is at */opt/phion/config* and contains the following subdirectories:

> Manual changes within these directories can damage your system. For any necessary manual changes, you should contact Barracuda Networks Technical Support.

active

The *active* subdirectory contains the active configuration that is used by the currently running services. It contains two important files: *boxadmin.conf* and *boxnet.conf*.

configroot

The *configroot* directory is the directory for the GUI's management configuration tree.

history

The *history* directory contains the DB files for internal use only. This directory must not be changed manually.

> Do not make any changes to this directory.

sessions

The *sessions* directory contains information for opened sessions.

update

The *update* directory contains all files that are required for syncing with another system (e.g., high availability system).

Checking the Integrity of Configuration Files

To check the integrity of the *boxnet.conf* and *boxadm.conf* files, use the *verify* (*/etc/phion/bin/verify*) script. This script is also used for network configuration checks from the Barracuda NG Admin GUI.

The following table displays example output from running the *verify* script:

```
[root@winix:/var/phion/logs]# verify /opt/phion/config/configroot/boxnet.conf
SUCCESS: No obvious critical consistency errors in box configuration Info:
[0140000] º boxnet(k,ARGS): box reaches MC@10.0.6.3 from 10.0.6.31 via
»10.0.6.0/8 dev eth0 src 10.0.6.31 realm internal« Info: [0140000] º
boxnet(k,ARGS): box reaches MC@10.0.6.2 from 10.0.6.31 via »10.0.6.0/8 dev
eth0 src 10.0.6.31 realm internal« Info: [0140000] º boxnet(k,ARGS): box
reaches server NTP@10.0.6.96 from 10.0.6.31 via »10.0.6.0/8 dev eth0 src
10.0.6.31 realm internal« Info: [0140000] º boxnet(k,ARGS): box reaches
server DNS@10.0.6.90 from all via »10.0.6.0/8 dev eth0 src 10.0.6.31 realm
internal« Info: [0140000] º boxnet(k,ARGS): logical check passed [ local
networks ] |name |addr |dev |ping |mgmt |ntpd ------------------------------
--------------------------------net0 |loop |127.0.0.1/8 |lo |y |y |n net1 |fw
|127.0.1.1/8 |tap0 |y |n |n net2 |vpn |127.0.2.1/8 |tap1 |y |n |n net3
|vpnpers |127.0.3.1/8 |tap2 |y |n |n net4 |mip0 |10.0.6.31/8 |eth0 |y |y |y
net5 |ospfVP |10.0.151.33/8 |eth1 |y |n |n [ management IPs ] |addr ---------
----------------ip0 |127.0.0.1/0 ip1 |10.0.6.31/0 [ servers ] 1: mw primary
box: winix [*] 10.0.6.31 secondary box: linix 10.0.6.32 1st server ip:
172.31.1.33 pingable=yes 2nd server ip: 10.0.60.33 pingable=yes 2: win0
primary box: winix [*] 10.0.6.31 secondary box: -- none - 1st server ip:
172.31.1.33 pingable=yes 2nd server ip: 172.31.70.2 pingable=yes add server
ip: 10.0.60.32 pingable=yes add server ip: 10.0.61.32 pingable=yes add server
ip: 172.16.0.1 pingable=yes add server ip: 172.16.1.1 pingable=yes add server
ip: 10.0.6.33 pingable=yes add server ip: 10.0.150.33 pingable=yes [ IP
tunnels ] |status |name |mode |dev/src addr | local remote ------------------
------------------------------------------------------------------tu0
|ready |tun1 |gre |10.0.150.33/8 | 10.0.151.33 10.0.151.8 [ routing structure
] Type indicators: 'u' .... unicast, 'Ø' .... unreachable, '¤' .... stop
lookup State indicators: '®' .... ready, '×' .... pending, '¿' .... dynamic,
'¬' .... inactive 1: u from 0.0.0.0/32 prio 0 table local 2: u from
0.0.0.0/32 prio 3 table vpnlocal 3: u from 0.0.0.0/32 prio 10000 table main
```

Activating Configuration Changes

Manual changes in the */opt/phion/config/configroot* and */opt/phion/config/active* directories can damage your system. For any necessary manual changes, you should contact Barracuda Networks Technical Support. Always back up the running files in the */opt/phion/config/active* directory before changing the configuration manually.

From the CLI, you can change your system configuration by editing the files in the */opt/phion/config/configroot* directory. After checking the integrity of the edited files, copy them to the */opt/phion/config/active* directory that contains active system configurations. Then execute the *activate* command to activate your changes. You must also refresh Barracuda NG Admin to display your new configurations.

To change and activate configuration changes from the CLI:

1. Back up the files in the */opt/phion/config/active* directory.
2. At the command line, change to the */opt/phion/config/configroot* directory.
3. Make the required changes to the appropriate file. For example, you can edit the *boxnet.conf* file.
4. Change to the */bin* directory at */opt/phion/modules/box/* for the configuration file that you edited. Enter:
   cd /opt/phion/modules/box//bin
   For example, to change to the */bin* directory for the *boxnet.conf* file:
   cd /opt/phion/modules/box/boxnet/bin
5. Verify the integrity of the configuration file that you edited in the */opt/phion/config/configroot* directory. Enter:
   verify
   For example, to verify the integrity of the *boxnet.conf* file:
   verify /opt/phion/config/configroot/boxnet.conf
6. After the edited configuration file has been successfully checked, copy it to the */opt/phion/config/active* directory.
   To avoid the Box activation alert symbol being displayed on the screen, you can also use the command:
   mv /opt/phion/preserve/boxnet.conf /opt/phion/config/active/boxnet.conf , instead of copying the file.
7. Change into the */bin* directory at */opt/phion/modules/box/* and activate the configuration.
   cd /opt/phion/modules/box//bin
   activate
   For example, to activate changes to the *boxnet.conf* file:
   cd /opt/phion/modules/box/boxnet/bin
   activate
8. Refresh the configurations in Barracuda NG Admin. You have two options:

- Click **Disconnect** and then click **Reconnect**.
- In the Config Tree, right-click the top node and select **Refresh Complete Tree**.

Because Barracuda NG Admin displays configurations from the */opt/phion/config/configroot* directory and not the */opt/phion/config/active* directory, it is important that you refresh the Config Tree after making configuration changes in the CLI. Otherwise, Barracuda NG Admin overwrites your changes and displays settings from a cache of the previous configuration.