

Troubleshoot DHCP and Static IPs on FileWave Debian Appliances

What

FileWave provides Debian appliances for these components:

- FileWave Server
- Booster
- IVS

FileWave Debian appliances use DHCP by default. The same networking principles apply to other Debian installations, but the commands and examples here focus on FileWave appliances.

 Give each appliance a stable address by configuring a static IP on the appliance or creating a DHCP reservation.

Why

Every customer network has its own addressing plan. Assign a stable address during initial setup so the Server, Booster, or IVS does not unexpectedly move when a DHCP lease changes.

Information

The following articles offer details for configuring static addresses on FileWave Appliances:

- [FileWave Server Setup](#)
- [Networking - Assign static IP Address for a FileWave Booster Appliance](#)
- [IVS Control Commands](#)

A DHCP reservation assigns the chosen IP to the appliance MAC address on the DHCP server instead of configuring the address locally.

Troubleshooting

Example customer report to the FileWave Support Team:

Report

"Despite having a DHCP reservation, the Booster was not assigned the expected IP address."

Resolution

FileWave Technical Support found two DHCP servers offering addresses on the same subnet. Only one server contained the reservation for the expected IP.

Avoid overlapping DHCP assignments

When more than one DHCP server serves a subnet:

- Give each DHCP server a unique address pool. Do not let two servers offer the same addresses on one subnet.
- Configure a reserved IP for an appliance MAC address on only one DHCP server for that subnet.
- Place the reservation on the server that owns the desired IP range.

 Overlapping address pools and relying on DHCP synchronisation is not recommended.

Use these Debian commands to inspect interfaces, leases, and neighboring devices:

Command	Description
<code>ip a</code>	Show network interfaces, IP addresses, and MAC addresses.
<code>ls /sys/class/net</code>	List network interface names.
<code>dhclient <name of network interface></code>	Refresh the DHCP lease for the named interface.
<code>arp -a</code>	Display the network neighbor cache.

Examples:

The following `ip a` output shows two interfaces. In this example, `ens192` carries external traffic.

```
# ip a
1: lo: <LOOPBACK,UP,LOWER_UP> mtu 65536 qdisc noqueue state UNKNOWN group default qlen 1000
    link/loopback 00:00:00:00:00:00 brd 00:00:00:00:00:00
    inet 127.0.0.1/8 scope host lo
        valid_lft forever preferred_lft forever
    inet6 ::1/128 scope host noprefixroute
```

```
valid_lft forever preferred_lft forever
2: ens192: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc mq state UP group default
qlen 1000
    link/ether 00:0c:29:1d:1c:75 brd ff:ff:ff:ff:ff:ff
    altname enp11s0
    inet 10.85.1.9/24 brd 10.85.1.255 scope global ens192
        valid_lft forever preferred_lft forever
```

i 'lo' is the [local loopback address](#)

i Use the interface output to find the MAC address needed for a DHCP reservation.

To list interface names without the address details:

```
# ls /sys/class/net
ens192  lo
```

If the appliance receives the wrong address, renew the DHCP lease for the active interface. Using `ens192` from the example:

```
# dhclient ens192
```

i Run `dhclient` as root.

`arp -a` can help identify address conflicts. This example shows the DHCP/DNS server and two devices in the appliance's neighbor cache.

```
# arp -a
Linksys38496.home (10.85.1.1) at d8:9f:80:4c:24:67 [ether] on ens192
FW1063.home (10.85.1.230) at 5c:96:cf:db:62:3b [ether] on ens192
m11063.home (10.85.1.136) at ac:d0:74:68:23:6d [ether] on ens192
```

Related Content

- [Networking - Assign static IP Address for a FileWave Appliance](#)

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