

Duplicate IPs

A CASE STUDY

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On average, Comsift Support receives at least one incident a week that resolves to being a duplicate IP on the network (a duplicate IP is when a device on the network has the same IP as the Comsifter).

SYMPTOMS OF A DUPLICATE IP CAN BE, BUT ARE NOT LIMITED TO:

- No one can get on the Internet and you are unable to log into the ComSifter.
- Random access to the Internet. One minute users are able to get on the Internet, a few minutes later they cannot.
- Web Sites start to load then they timeout with a page cannot be found.
- You cannot log into the Comsifter or randomly you can and then you cannot.
- Any of these symptoms can be the result of a duplicate IP.

HOW DO YOU DETERMINE IF YOU HAVE A DUPLICATE IP?*

1. From a client computer open a command prompt.
2. On the command line enter `ping -t the_comsifters_ip` (i.e. `ping -t 192.168.1.9` notice the space between `ping` and `-t` and between `-t` and the IP address)
3. This will start a continuous one-second ping to the ComSifter.
4. You should see a continuous reply.
5. While the test is running, disconnect the LAN cable going to the Comsifter.
6. The Ping test should start showing Request timed out. Let this test run for a period time longer than the randomness your users are experiencing. For instance, if your users are experiencing a problem every few minutes let the test run for ten minutes.
7. If at any time you see a Reply, then another device on your network is responding and you have a duplicate IP.
8. Find the offending device and remove it from your network.
9. To end the test enter `ctrl_c`.

WHAT CAN CAUSE A DUPLICATE IP?

The last two cases at Comsift were:

- An old router had been grabbed from the old equipment pile. The admin needed just a switch and did not realize it was a router. The router had the same IP as the ComSifter.
- In the other case the admin forgot to exclude the ComSifter from the Windows DHCP Server lease pool. When school started computers started coming on line and the ComSifter's IP was given to a classroom computer.

Beware of mobile devices. A student bringing in an iPad™, iPod™, or even a smart phone can inadvertently assign a static IP to the device.

***TSB Update — January 2013:** The ComSifter 'D' series units provide both an audible tone (unique to either the WAN or LAN side) and an email message that includes the MAC (hardware) address of the offending duplicate IP device. The email message can be setup by going to Maintenance > Utilities > Email Notification Parameters > Email address of second recipient.