

Remote Access 101: Dynamic and Static Addresses

If you configured your StorCenter using DHCP, you may not be able to reconnect to your StorCenter via remote access after a reboot. This white paper describes the steps you can take to resolve problems with DHCP addressing.

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Introduction

By default, your StorCenter receives its network configuration settings from a DHCP server (Dynamic Host Configuration Protocol). The DHCP server configures the StorCenter with a dynamic IP address as well as other network settings and server addresses. Although DHCP makes the configuration of your StorCenter very easy, it can cause problems with remote access if your dynamic IP address changes. Iomega recommends you use a manual IP address when possible if you are using remote access (see page 3). If for some reason you need to remain on DHCP, see the following section, "Resolving Remote Access Problems with DHCP Configurations,"

Resolving Remote Access Problems with DHCP Configurations

If you configured your StorCenter using DHCP, you may not be able to reconnect to your StorCenter via remote access after a reboot. DHCP will automatically get an IP address from the server whenever the StorCenter restarts. This is a very simple way to configure the StorCenter; but can cause problems with your router's port forwarding settings. The router does not dynamically update port forwarding settings and cannot port forward to your StorCenter if its IP address changes.

To resolve this problem you can try one of the following techniques:

- Increase the length of the DHCP lease
- Use Static DHCP

Increasing the DHCP Lease

Your router will attempt to remember all DHCP clients and give them the same IP address every time they request an IP address; however, the router will forget clients if they do not request an IP address for a certain amount of time. Your router will have a setting for how long the DHCP lease is valid. If your network requires DHCP, this may be a good solution; however, it is not always guaranteed to work. You may need to occasionally update your router's port forwarding settings.

Using Static DHCP

Some routers allow you to assign Static IP addresses through the DHCP system based on the MAC address of the device. This ensures that the StorCenter will always get the same IP address and your port forwarding settings will always be correct. Static DHCP allows you to leave your StorCenter device in DHCP mode. See the manual that came with your router for more information on configuring Static DHCP.

1. Find the StorCenter MAC address
 - a. Launch StorCenter Manager and log into the StorCenter Device.
 - b. Click on the **Settings** tab.
 - c. Click the **Network Services** icon.
 - d. Click the **Network Settings** icon.
 - e. The MAC address is found in the field labeled **Hardware ID (MAC Address)**. Write down the MAC address for later use.



2. Enter the StorCenter MAC address and assign it an IP address **WITHIN** the router's DHCP range. See the manual that came with your router for more information on configuring Static DHCP.
3. If necessary, update your router's port forwarding information with the new static DHCP IP address.

Using a Manual IP Address

Changing the Manual IP Address will reduce your StorCenter's reliance on the DHCP server; however, you will need to perform a little additional configuration for the StorCenter to work properly.

1. Log into your router and write down the DHCP range it is using. See the manual that came with your router for more information on configuring Static DHCP.
2. Launch StorCenter Manager and log into the StorCenter Device.
3. Click on the **Settings** tab.
4. Click the **Network Services** icon.
5. Click the **Network Settings** icon.
6. Deselect the option for **Automatically configure all network settings**.
7. Deselect the option for **Automatically configure IP address**.
8. Enter a new IP address that is **OUTSIDE** of your router's DHCP range. For example if your router is distributing IP addresses in the range of 192.168.14.2-192.168.14.50, you will want to assign the StorCenter a number between 192.168.14.51 and 192.168.14.255. Make sure you are assigning the StorCenter an IP address that is not in use by another device.
9. Enter a subnet mask. The subnet mask describes the size of your network. For most networks this will be 255.255.255.0 which allows for 256 network devices. If you are on a larger network or are using the self-assigned APIPA range (169.254.x.x), you will want to use a 255.255.0.0 or larger subnet mask.
10. Enter a gateway address. In most cases, this will be the IP address of your router.
11. For best results enter the IP address(es) for your DNS Server(s).
12. If necessary, enter the IP address(es) for your WINS server(s).
13. Click **Apply**.
14. If necessary, update your router's port forwarding information with the new static DHCP IP address.



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