



SHOWCASE® Query/ Retrieve – Troubleshooting Connectivity Problems

Getting that first image to transfer is the hardest part of network setup. Once images have transferred successfully, you may never need to visit the ShowCase Connect settings screens again. This guide gives some tips for handling problems that could come up while setting up the network connectivity.

Note: Make sure that all configuration is done with an administrator log in. If you think you configured without administrator privileges, it is best to un-install ShowCase and re-install it.

Error Logs

If you are having trouble getting communication going between ShowCase Connect and other DICOM devices (usually a PACS), you can usually get information about the problem by looking in error logs.

ShowCase Connect has a **View Log** button on the bottom of the main screen.

The log on the PACS is usually the best way to diagnose communications problems. That log may tell you why the device is not sending images to ShowCase. Consult the manual for your PACS or ask your IT support if you need help finding the log.

General Network Connectivity

The ShowCase Connect computer and PACS must be able to see each other on the network. Make sure that "ping" works in both directions. Your IT support may need to help check that your network is set up correctly and provide the machines' network IP addresses.

For most network configurations the ShowCase Connect computer must have a fixed IP address. The PACS cannot send DICOM messages consistently if there is a dynamic IP address.

DICOM Network Connectivity

A unique DICOM AE_TITLE is essential for accurate communication. Make sure that the assigned name (SHOWCASE_SCP is the default) in the ShowCase Connect Settings is exactly the same (including capitalization) in the PACS configuration.

The ports that send/receive images must match. The "Listen Port" in ShowCase Connect is usually port 104. The Send port on the PACS must match as port 104.

Do not set up your imaging machine to require "Storage Commit" when sending images to ShowCase. ShowCase does not support Storage Commit.

Firewalls

If your DICOM messaging says that an association was refused and you have checked all the network connectivity settings above, you might have a firewall preventing communication.

If your machine is protected by the standard Windows Firewall, see the instructions below. For other firewall vendors, consult the documentation on how to permit a specific program to get access through the firewall.

For Windows 10 Firewalls: Go to Control Panel -> System and Security -> Windows Defender Firewall -> Allow a program through Windows Firewall". Give ShowCase Connect permission.

Using Query/Retrieve over a remote connection

ShowCase computers need a fixed IP address. Many hospitals and clinics allow remote connection over a VPN. The VPN must map the remote computer to a consistent IP address. If you are not using a VPN, your Internet provider should be able to assign a fixed IP address.

What if Query/Retrieve Doesn't Work?

You may be trying to query a DICOM system that does not support Query/Retrieve. For example, very few ultrasound machines support Query/Retrieve. You must "send" the images from the ultrasound machine to ShowCase Image Center.

Note that ShowCase itself is currently **not** a Query/Retrieve provider, which means you cannot query another ShowCase computer for studies.

What if Query Works, Retrieve Doesn't?

If you have followed all the installation/configuration instructions but you are still having trouble, check the following tips.

- ✓ **IP Address:** The most common problem is that the PACS is not configured to send the images to the correct IP address (the ShowCase Connect computer). Be sure to verify the IP address. This is the key information the server uses to transfer images.
- ✓ **Error Logs:** Check the logs on both machines. The log on the PACS is more likely to report the problem if ShowCase Connect can query, but not retrieve studies.
- ✓ **PACS Configuration:** Double-check your PACS configuration with the manufacturer's instructions. Some PACS require you to enter a specific configuration for the ShowCase machine to Query/Retrieve the image server. Some even require separate configuration to send multi-frame images (clips).
- ✓ **"Stuck" Studies:** Check to see if the transfer queue (list) on the PACS has a study "stuck" in it. There should be a way to clear the transfer queue.
- ✓ **Firewalls:** Verify that the firewall is configured to allow ShowCase Connect to communicate inbound and outbound on any port.
- ✓ **Port Conflicts:** Try using a port other than 104 if the logs indicate a problem with the port (make sure to change it on both ShowCase Connect and the PACS)
- ✓ **"Relational Queries":** If the Query Node in ShowCase Connect has the "Supports Relational Queries" box checked, try unchecking it.
- ✓ **Permissions:** The "Main Image Folder" (configured in ShowCase Connect) must allow ShowCase Connect users write access to the folder. Check the permissions on the folder.

If you cannot find the problem, send the details (when the problem started, PACS manufacturer name, error messages, error logs) to support@triltech.com so we can help diagnose the problem.

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