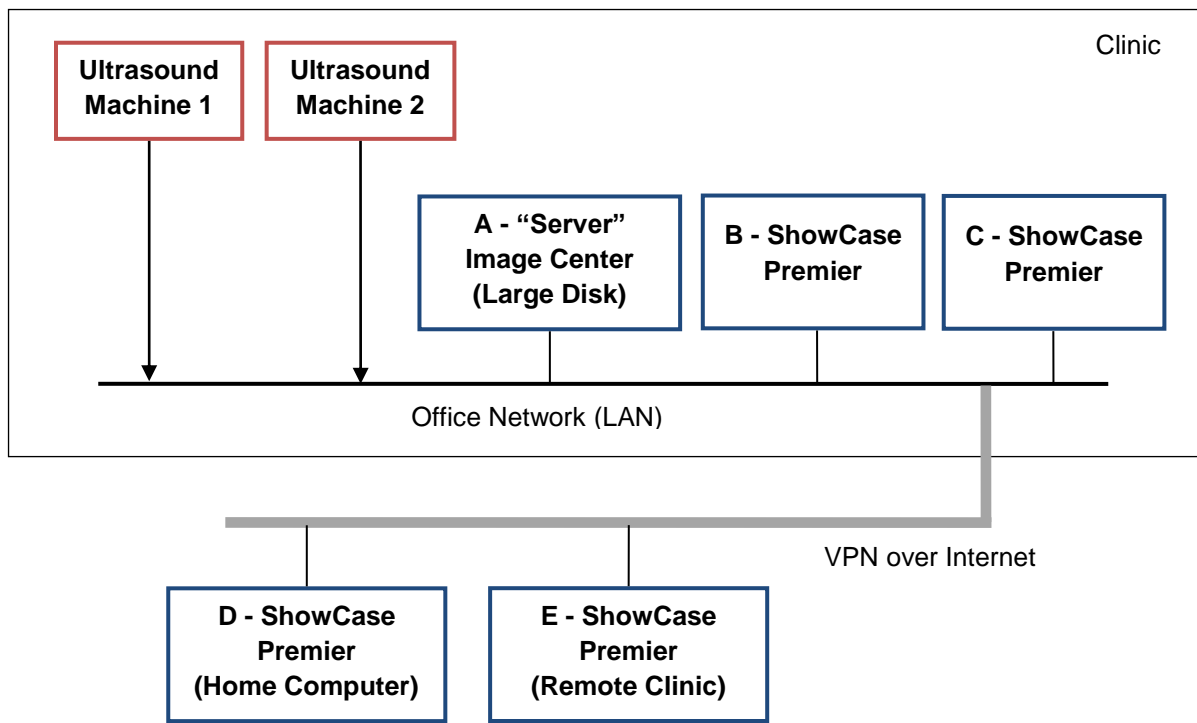# *Single Clinic Deployment of ShowCase*

This guide describes a typical ShowCase clinical network configuration for storing studies from one or more ultrasound machines and viewing these studies on multiple office computers and remote computers.

Typically, a clinic designates one computer as the "Server". This computer runs the Image Center software, which receives images from the ultrasound machines and stores them to a disk drive. ShowCase Premier is then installed on other computers in the office, and used to view the studies stored on the Server. ShowCase Premier can also be installed on geographically remote computers, e.g. home PCs or other clinics and studies can be reviewed over VPN.

The Ultrasound Machines send study data to the **A** "Server" computer running ShowCase Image Center. The Image Center stores the study data to a large disk. ShowCase Premier on computers **B** and **C** is configured to access the Image Center directly, as local viewers. ShowCase Premier on computers **D** and **E** are configure to access the Image Center over a VPN, as remote viewers. The Image Center will store up to 200,000+ studies.

What's the difference between local and remote viewing?

Local viewing is much faster. Images will appear almost instantly when a study is opened. VPNs tend to be a lot slower than local networks, usually 10 to 100 times slower so remote viewers are configured to copy the study to the remote computer, as needed, in the background. Copying a study to a remote viewer can take anywhere from 2 to 20 minutes, depending on the speed of your VPN. Once the study is there, though, it opens very fast. The local study cache on this remote computer will need to be cleaned out from time to time.

Hardware and Licensing

Server

The Image Center software can be run on a conventional computer, but for large practices it is good to use a higher end computer or server grade hardware or a VM. The amount of disk space you will need depends on the number of studies you do each day and how many years you need to keep the studies. On average, a study takes up 150 MB of disk space. To budget two years of disk space, use the formula:

150 MB x (# studies/day) x (250 working days/year) x (2 years) = ? MB

Example: 150MB x 40 studies/day x 250 working days x 2 years = 3,000,000 MB or 3 Terabytes

This storage can be a hard drive, RAID, NAS, etc. The folders that the Image Center uses to store data are called Image Directories, and these will need to be shared (read-only) on the network for local access.

Viewing Stations

ShowCase Premier is installed on each computer that needs to access studies from the Image Center. (ShowCase Basic cannot access an Image Center.) Each copy of ShowCase Premier requires its own license. The viewing computers do not require a lot of hard disk space, and conventional video cards work well with ShowCase. Avoid USB video, which can cause viewing problems.

Local viewing stations need read-only access to the Image Directories in the Image Center. Remote viewing stations are configured to locally cache studies for viewing, but the disk space requirements are small if the locally stored studies are periodically removed from the local cache folder.

Extra license activations (at no cost) are available for physicians who sometimes read from a home or laptop computer. This extra activation is not intended for use at remote clinics or referring physician offices.

VPN

If your practice does not already have a VPN, we suggest trying the LogMeIn Hamachi software VPN. It is reliable, easy to deploy, and fairly inexpensive.

Note: Do Not Use a Remote Desktop Solution

Remote Desktop solutions such as Windows Terminal Server, Citrix, GoToMyPC, usually save bandwidth by displaying less gray scale values than are needed for medical image display and the video bandwidth required to play clips at diagnostic quality is not supported. Remote Desktop solutions are not an intended use of ShowCase and are not supported.

Free 30 Day Trial

At Trillium, we are strong believers in "try before you buy." We encourage all of our potential customers to go to the Download section of www.triltech.com and download the free 30 day trial of our Image Center and ShowCase viewing software. Install it on your existing hardware and try it with your workflow and your images. A set of quick guides can help you get you started. If you still have questions, please contact us at support@triltech.com.