

Qualification Technology & Setup Requirements & Recommendations

Overview

NComputing went through the following TestNav qualification process for the NComputing products described below based on the following technology and setup requirements and recommendations. This document will describe the process to achieve qualification, testing criteria, and will provide guidance to districts and schools for technical setup if they choose to use qualified NComputing products with TestNav.

Qualified Products & Solutions – TestNav 7.5

Pearson and NComputing jointly tested the following solutions for use with TestNav 7.5:

- L300
- M300
- X350
- X550

Overall Goal

A qualified client machine in the virtualized environment should provide the same security and comparable performance as a client machine in a non-virtualized environment. Performance testing demonstrated that 10 users for X350/X550 and 25 users for M300/L300 will have the same experience as a single user.

All TestNav 7.5 technical requirements need to be followed when using qualified products: www.pearsononlinetesting.com/TN7requirements. The standard Pearson process running SystemCheck should be followed.

Additional Requirements

In addition the following requirements apply:

- For the X350/X550 – up to 10 clients can be used with Windows Server 2008 R2, or one client with Windows 7 32-bit or Windows 7 64-bit. Requires NComputing Software version vSpace 6.2.5 or 6.2.6, a Modern dual-core processor (Core 2 Duo or AMD equivalent) at 2.4GHz and 4GB RAM. 1Gbit NIC is required for a Network Speed.
- For the M300/L300 – up to 25 clients can be used with Windows Server 2008 R2, or one client with Windows 7 64-bit. Requires NComputing Software version vSpace 6.6.2.3, Modern quad-core processor (Core i5 / Core i7 or AMD equivalent) at 2.6GHz and 8GB RAM. 1Gbit NIC is required for a Network Speed.
- Single core processors and dual-core processors with the Pentium D brand are not supported by NComputing vSpace virtualization software. When the vSpace Host OS is being run inside of a virtual machine, a minimum of 2 vCPUs is required.
- Due to RAM requirements, 32bit operating systems are not supported at 20 users.
- Windows 7 32bit must be able to address a full 4GB of RAM, depending on hardware platform. Windows 7 32bit must be able to address 3.2GB or more to support 10 users.

The technology and setup requirements must be followed and all clients or workstations used to access TestNav must comply in order for the solution to remain in qualified status.

Qualification Environment	X350/X550	M300/L300
TestNav Version	7.5.x	7.5.x
Software Version	vSpace 6.2.5. and 6.2.6	vSpace 6.6.2.3
Minimum Processor	Modern dual-core processor (Core 2 Duo or AMD equivalent) at 2.4GHz	Modern quad-core processor (Core i5 / Core i7 or AMD equivalent) at 2.6GHz
Minimum Memory	4GB RAM	8GB RAM
Max # of Clients / Operating System	1 / Windows 7 32-bit 1 / Windows 7 64-bit 10 / Windows Server 2008 R2	1 / Windows 7 64-bit 25 / Windows Server 2008 R2
Minimum Network Speed	1Gbit NIC	1Gbit NIC
Maximum # of Clients	10	25
Minimum Encryption	128bit AES encryption	128bit AES encryption

Additional Recommendations

In addition, the following specifications are recommended:

- With L and M Series it is necessary to exclude some files from the NComputing vSpace video Streaming engine. To do this please do the following:
 1. Go to Start > Run > type "regedit
 2. Expand HKLM > System > CurrentControlSet > Control > Multiuser
 3. Edit the value named "ExcludeVideoPlayerNameList"
 4. Add the following items to that value:
javaw.exe; java.exe; jp2launcher.exe; FlashUtil11f_ActiveX.exe
- Do not exceed 90% physical memory usage. This can often cause issues with Windows stability; therefore users should not exceed this requirement.

Please note: The products described above were tested by NComputing and Pearson to work only in the specific environment described in the additional requirements list. Any variation in the described environment may result in performance issues.