

M300 Evaluation Guide

How to evaluate the M300 3-in-1 thin client virtual desktop with vSpace

Setting up an NComputing virtual desktop for evaluation is quick and easy. This guide provides an overview and simple tips to help you get setup and exercise some of the exciting features of the M300 virtual desktop.

M300 Introduction:

The M300 represents another high performance, low cost computing solution from NComputing providing a simple, powerful and affordable PC Expansion alternative. As the industry's first 3-in-1 thin client offering, the M300 delivers a rich PC experience at 1/3 the cost of PCs and typical thin clients 1/3rd the networking. . With this breakthrough, NComputing uniquely delivers innovation that multiplies the value customers can expect from thin clients in a virtual desktop environment.

The M300 provides superior graphics and full screen video streaming capabilities, USB support, the highest number of users per host PC, and Ethernet connectivity -- all at a very affordable price. The economics improve even more with no annual license fees, multiple seats on a single LAN port and with a single power plug, and vSpace Server's inherent ability to run multi-users on a single operating system or within a single hypervisor, if desired. Across the board, an M300 deployment provides a superior PC alternative that reduces acquisition, deployment, and management costs.

The M300 is ideal for workgroup computing: classrooms, computer labs, training rooms, libraries and small business.

Major New Features and Benefits

- Each M300 kit has three (3) client devices
- Includes next generation Numo 2 SoC for enhanced multimedia and full-screen video playback
- USB keyboard and mouse support
- USB 2.0 peripheral support
- Connects to the host PC with Ethernet
- Microphone added (audio in/out)
- Share one PC with up to 45 users, allows for improved density on your host PC that saves cost
- vSpace™ Server desktop virtualization software that can be run from either a physical PC or virtual OS (with a hypervisor)
- Video resolution to 1440 x 900 at 24 bits
- Energy-efficient (typically 2 watts per user)
- Easy to set up, maintain, manage and secure
- Compact and reliable (no fans or disks)



Set Up Steps

1. You need a computer and peripherals

Whether you have or virtualize one, you will need a computer to turn into a vSpace host. At this time, that computer needs to run Windows 2008 R2 SP1, or Windows Multipoint Server 2011, or Windows 7 SP1 (32 or 64 bit). The host PC should be a 2.0 Ghz. dual core or better with at least 2GB of RAM. While you may just use an existing machine with Windows already installed, we do recommend a fresh installation of Windows with the correct system drivers just to make sure the system is stable. (Note XP is not supported with the M300.)

If you aren't ready to wipe your disk, don't worry. Simply install a fresh operating system in a virtual machine using your favorite hypervisor. Make sure you install the hypervisor tools in the guest OS so that network and other devices are operational. If you use a VM please assign 2+ VCPU's to it and 3-4 GB amount of memory.

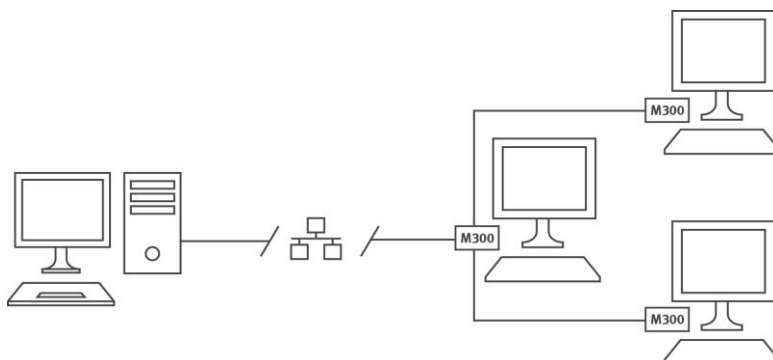
If you are setting up Windows Server 2008, take a few minutes to configure the user environment for a desktop for a familiar user experience. You can find instructions for [configuring Windows Server for desktops here](#).

Note: Our new vSpace for M300 is not compatible with existing X-series hosts so a dedicated OS is needed.

Note: cables are not included; you will need an Ethernet drop and then two CAT5e cables and two USB A/B cables to connect the small client device to the large client. All cables are needed for full functionality.

2. You need a network

It is likely you already have a network. If you don't, either talk to your network administrator or acquire an inexpensive home router that provides DHCP services (they all do). If you have a single Ethernet port in your office, you may just need a simple Ethernet switch; any switch will do. The goal is to put the vSpace host and M300 client devices on the same switched network. A 10/100 connection to the M300 large client is fine but if you are running many users from a single host then a 1Gb connection between the switch and host is advised.



3. M300 virtual desktop kit

The M300 virtual desktop kit comes with three client devices, a power supply, vSpace device license and you can download a version of vSpace 6.6.x at: <http://www.ncomputing.com/softwaredownload>

You must use vSpace 6.6.x or newer and this version can NOT be used with existing X-series installs, therefore you must have a new physical or virtual OS to install it on.

4. Install vSpace

Installing vSpace SW is easy. Once you start the installation process, follow the wizard. It will only take a few minutes to complete the installation. You may also elect to setup a few additional users in the Windows users and groups administration tool to get an idea of how additional user profiles will work. Make sure that any users are members of the "Remote Desktop Users" group. To allow existing Active Directory domain users to access their accounts, profiles and home directories etc., simply [join the host to the domain](#). Make sure to register to get full operation of the client devices.

5. Setup your M300 device on the network

Setting up the M300 takes just a few minutes:

1. Plug in the power, network (LAN), monitor, mouse and keyboard into the rear panel of the larger of the three client devices (make sure to use the stacked USB connectors for the keyboard and mouse). **Important: Only the larger M300 client device connects to the LAN, use only the RJ-45 on the rear panel.**

2. Plug in monitor, mouse and keyboard into the smaller client. Then connect the smaller client to the larger client via an Ethernet cable. The smaller units do NOT connect to the network, they connect to the larger unit with standard CAT 5 cables to the RJ-45 connectors on either side of the larger client. *Note: There is a 5 meter limit between the large client device and small client devices.*



3. If you plan to use USB 2.0 peripherals (other than the keyboard and mouse) a USB A/B cable is needed between the larger client and the two smaller clients (again use only the side USB ports for this). *Important: The USB 2.0 port is in the front of each client, the stacked dual USB ports on the rear of the devices are for keyboard and mouse only. The side USB ports on the large client connect the A/B cable to the small devices.*
4. Your vSpace and M300 should be attached to the same network with DHCP, if so, once you turn the unit on and you will see a menu. If your network does not assign IP addresses automatically, you will have to set a static IP address, by clicking the setup button and going to the network tab.
 - a. Set Up Screen: get back to the set up screen (to adjust your settings) it can be restored only on the large client. The other two smaller clients must be logged off and pressing the "F5" key when user sees the "NComputing" splash screen from the large client will access the set up screen. Users do not need to power cycle their board to bring up the GUI.
5. Display and other settings can be set in the set up screen as well.
 - o Display Resolution: Like the X-series all three displays must run at the resolution (as set on the large client).
 - o Errata: For these m300 beta units the sleep function will NOT operate with future firmware versions. This is a beta hardware limit and will be corrected in future client devices.

6. Test your units

OK, now it is time for fun. Try downloading a movie trailer and choose a DVD, 480p or 720p HD file to download. Or, try an equally thrilling employee training video of your own. If the necessary 3rd party codecs are properly installed on your host (if they run well on your host), then you should get full speed performance that can be scaled to the full resolution of the display (up to 1440x900). The powerful Numo2 chip has a hardware scalar so the video can be run at any resolution without any performance issue for the host or network. Spend some time on YouTube or other web applications. Transfer some files over USB (but sure to use only the single front USB port).

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**For multiuser environments, customers must acquire the appropriate number of Windows Server licenses and Client Access Licenses.*

***You can use vSpace software with Windows client operating systems only if a single user accesses the operating system at any one time, or you are authorized to do so under an applicable license from Microsoft or as expressly set forth in the NComputing license agreement that is contained on the enclosed CD. Additionally, you should review Microsoft licensing requirements for both multiuser and for single-user environments at www.ncomputing.com/mslicensing*