

IBM NetVista Thin Client with Turbolinux 7 V3R2M0

Installation Readme

This product contains scripts to install and preconfigure a Turbolinux Workstation 7.0 tree on a Linux server from which IBM NetVista thin clients can boot from. Throughout these scripts, statements enclosed in [] are default values. If you press Enter, this value will be used. Statements enclosed in () are the possible values to be used by the scripts.

Release Notes

- This release contains 3 CD's
 - **IBM NetVista Thin Client with Turbolinux 7 - Installation**
 - Installs for both Linux servers and Windows servers are on this CD. It also contains the IBM NetVista Thin Client Operations Utility for both Linux and Windows servers.
 - **IBM NetVista Thin Client with Turbolinux 7 - Turbolinux Workstation 7.0 Object Code**
 - This CD is requested while installing on a Linux server.
 - **IBM NetVista Thin Client with Turbolinux 7 - Turbolinux Workstation 7.0 Source Code**
 - This CD contains some of the source RPM's.
- For additional information, please refer to these documentation sources.
 - IBM NetVista Thin Client with Turbolinux 7 Readme
 - This Readme file contains information and tips about using IBM NetVista Thin Client with Turbolinux 7.
 - It is located in /nstation/linux/IBM/ReadmeClient.html after install.
 - For the latest version of this Readme, visit the IBM NetVista Thin Client Software Download site at <http://techsupport.services.ibm.com/regsvs/nc> and click on the Linux server link.
 - Kernels for NetVista Thin Client
 - This Readme file contains information about the available kernels.
 - It is located in /nstation/linux/README.kernel
 - IBM NetVista Thin Client Hardware
 - For additional information on setting up your IBM NetVista Thin Client hardware:
 - Go to the NetVista Thin Client Publications website <http://publib.boulder.ibm.com/netcom/html/pub.htm>
 - IBM NetVista Thin Client support web site: <http://www.ibm.com/pc/support>
 - Select "NetVista and NetVista thin client" from the Browse section, then select the "NetVista Thin Client" icon.

Prerequisites:

- A Linux system with NFS capabilities
 - Turbolinux 6.0.4, 6.5, 7.0
 - Red Hat 6.2, 7.1
 - SuSe 6.4, 7.2
 - Caldera 2.4, 3.1
- Approximately 1.2 GB of available disk space

- NetVista N2200 and N2800 thin client NSBoot Firmware dated 12/06/01 or later is required on your N2200 and N2800 thin clients (included in the installation tree as bflash.2800 or bflash.2200).

The first time you boot your thin client with a firmware date of 7/16/01, the firmware will automatically update to the latest level.

To manually update firmware levels earlier than 7/16/01 or at the 12/06/01 level, see the ReadmeClient.html file located in nstation/linux/IBM.

Information for Specific Server Distributions:

- Caldera
 - The cdrom automount functionality in Caldera behaves in a manner which can cause problems with this installation program. When prompted to put in the Turbolinux Workstation 7.0 CD, a window will open displaying the contents of the CD. Do not close this window as it then unmounts the cd and can lead to errors with this installation.
- RedHat
 - On RedHat 7.1 servers, you will need to allow for nfs connections if you have installed with medium or high level firewall security. To do this you need to add udp:2049 to the trusted ports during installation. If you have already installed you can add the following line to /etc/sysconfig/ipchains.

```
-A input -s 0/0 -d 0/0 2049 -p udp -j ACCEPT
```

Installation

To initiate the installation process issue the command **<CDROM>/Linux/products/nvTCLinux/NetVista_Install** where <CDROM> is the mount point for your cdrom (typically /mnt/cdrom). This script will ask you the following questions:

- CDROM Drive Mount Point [/mnt/cdrom] ?

When this script is finished it will prompt you to execute the command **/tmp/NetVistaLTC/Turbolinux/tl_install.sh** which will ask the following questions.

- Please select Installation type:
 1. Local CDROM
 2. NFS
 Enter Selection:

Option 2 is useful if you want to install the product on multiple servers. An iso image of the Turbolinux 7.0 RPM cd can be created and then nfs exported.

- Server IP Address [x.x.x.x] ?
The installation program attempts to determine the server's IP address. If the one

defaulted is correct, press ENTER. If you have more than one network card installed, you may need to specify the IP address of the network card you wish your thin clients to connect through.

- 1) Caldera Open Linux 2) RedHat 3) SuSe Linux 4) Turbolinux 5) Other
Which Linux distribution are you running on this server?
- Installation Directory [/nstation/linux] ?
- If you are upgrading to a new service update level or are reinstalling the product, the following question is displayed:

Detected existing installation. Would you like to Upgrade (preserving client configurations) or perform a Re-install (the previous installation will be removed)? (U/R)

If you are upgrading, the install will start the upgrade using the installation settings from the original install. If this is a new install, or you are re-installing, the install will continue with the following questions.

- An installation summary screen is displayed. For example:
Installation of Server Boot Turbolinux WorkStation 7.0 Linux client for IBM NetVista thin client
Current selections:
Server IP address: 172.16.1.2
Base Product directory: /nstation

Exported Directories:

Client boot directory: /nstation/linux
Client specific directory: /nstation/machines
Client profiles directory /nstation/profiles
Client user home directory: /nstation/home

Do you wish to continue, restart, or exit installation? (c/r/e)

- At this point, the install will have enough information from your install method (new install, upgrade or re-install) to start the installation. The install will begin by extracting the RPMs. You will see progress hash marks being printed for each rpm being installed. If you encounter problems after the installation, you can check the following logs in /tmp/NetVistaLTC/Turbolinux/tmp.

install.log - contains a copy of your installation choices
rpm.log - contains information on rpm's that failed to install
rpm.err - contains information on rpm's that were installed but had some errors such as "execution of script failed". These errors are due to some post and pre install scripts that fail due to being installed in a directory other than / and can be ignored. An error that could cause problems is if an rpm fails to install due to not having enough space on /nstation/linux. In this case you will want to see how large of partition you have on /nstation/linux.

Upon completion of the script, nfs will be started again.

Booting your N2200 or N2800 Thin Client from the Server

First, verify that the client NSBoot Firmware is at a level that supports booting Linux (see Prerequisites) and update it if necessary. Then, boot the client in NSBoot mode and modify the settings as follows:

- Display settings
- Network settings
 - Set "Network Priority" to use one of these three options:
 - Choose "IP Address/Network Config from DHCP" if you will use DHCP to provide full configuration options.
 - Choose "IP Address from DHCP" if you will use DHCP to only provide an IP address.
 - Choose "Static IP Address" if you will provide an IP address in NVRAM. Set the client IP address, gateway IP address and subnet mask.
 - Set "Boot file source" to Network
 - Set "Profile Location" to use one of these three options:
 - Choose Boot Source if you will be retrieving profiles from the boot server.
 - Choose Remote Server if you will be retrieving profiles from a remote server via nfs.
 - Choose Thin Client Manager Server if you will be managing and retrieving profiles from a server running Thin Client Manager Operations Utility.
- Boot file server settings
This screen is displayed if you are not obtaining configuration information through DHCP.
 - Boot file server IP address
 - Boot file server directory and file name
 - /nstation/linux/kernel.2800 for model 2800
 - /nstation/linux/kernel.2200 for model 2200
 - Boot file server protocol
 - TFTP - Disabled
 - NFS - Primary
- Profile Server Configuration
This screen is displayed if you are using Thin Client Manager Operations Utility as your profile server.
 - Profile server IP address
 - Profile Port
 - Profile Server Protocol
 - Primary - HTTP

Booting your N70 Thin Client from the Server

For information on configuring your N70 thin client for server boot, please refer to the "N70 Thin Client Reference" which can be obtained from the NetVista Thin Client Publications web site: <http://publib.boulder.ibm.com/netcom/html/pub.htm>

Once Linux is Running on the Client:

- Installing additional applications
You can install additional rpm's by putting the rpm on the server where it is accessible to the client (anywhere under /nstation/linux). Then login to the client as root and install the rpm with **rpm -Uvh your_rpm.rpm**.

Known Problems and Possible Solutions:

- ICA is upgraded from version 6.0 to 6.2 when you upgrade from IBM NetVista Thin Client with Turbolinux Service Update 3. ICA Client sessions will not be migrated to the desktop settings profile component so you will need to recreate them as needed.

Software Service and Support:

This Customer Service and Support guide applies to U.S., Canada, and Puerto Rico only. Outside those countries, contact your local IBM representative or Authorized IBM Supplier for information on warranty and software support. This product is supported by IBM Support Line.

Possible sources of selfhelp can be found at our support web site:

<http://www.ibm.com/pc/support>. Select "NetVista and NetVista Thin Client" from the Browse section, then select the "NetVista Thin Client" icon. Once there, you may want to bookmark the site.

If you are a licensed customer in the U.S. or Puerto Rico who has a support contract and you need support, please have the following information available, then call 1-800-237-5511. In Canada, call 1-800-IBM-SERV (1-800-426-7378).

- The product name and version number
- The kind of hardware and software you are using
- What happened and what you were doing when the problem occurred
- Whether you tried to solve the problem and how
- The exact wording of any message displayed

You can report suspected defects via fax or mail until the product's Service Expiration Date. We will respond to you using the same method. The Service Expiration Date is defined in your License Information booklet under Program Services.

For information on reporting suspected defects, you may call 1-800-297-5511 in the U.S. and Puerto Rico. In Canada, call 1-800-465-9600.

If you are a licensed customer who does not have a support contract and you need support, you will need to call one of the following numbers to purchase a contract:

If you have an IBM Customer Number, call 1-888-426-4343 Monday - Friday 8:00 AM to 6:00 PM Central time. In Canada, call 1-800-465-9600 Monday - Friday 8:00 AM to 5:00 PM customer time zone.

If you do not have an IBM Customer Number, call 1-800-237-5511 Monday - Friday 8:00 AM to 5:00 PM customer time zone. In Canada, call 1-800-465-9600 Monday - Friday 8:00 AM to 5:00 PM customer time zone.

Information on IBM Support Line is also available on the Internet (<http://www.ibm.com/services/its/us/swsupport.html>).

Hardware Service and Support:

Customers can report hardware problems by calling 1-800-IBM-SERV (1-800-426-7378) in the U.S., Puerto Rico, and Canada.

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