IBM NetVista Thin Client with TurboLinux
Service Update 3
Last Update: Monday, July 23, 2001

INSTALLATION README

This product contains the setup program to install and preconfigure
a TurboLinux Workstation 6.0.7 installation on a Windows server for
IBM NetVista thin clients to boot from.

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1.0 RELEASE NOTES

1.1 This release package contains 3 CD's.
     1.1.1 IBM NetVista Thin Client with TurboLinux install CD
            Installs for both Windows servers and Linux servers
            are on this CD.
     1.1.2 Turbo Linux Workstation 6.0.7 CD
            This CD is requested while installing on a Linux server.
     1.1.3 Turbo Linux Workstation 6.0.7 Source CD
            This CD contains some of the source RPM's.

1.2 For additional IBM NetVista Thin Client with TurboLinux
     information, please refer to these documentation sources.
     1.2.1 IBM NetVista Thin Client with TurboLinux Readme
         - This Readme file contains information and tips about using
           IBM NetVista Thin Client with TurboLinux.
         - It is located in
           [drive:]\{float}\NetVista_Linux\Linux\IBM\ReadmeClient.html
           where [drive:]\{float} is the location of your installation.

     1.2.2 Kernels for NetVista Thin Client
         - This Readme file contains information about the available
           kernels.
         - It is located in
           [drive:]\{float}\NetVista_Linux\Linux\README.kernel
           where [drive:]\{float} is the location of your installation.

     1.2.3 IBM NetVista Thin Client Hardware
         - For additional information on setting up your IBM NetVista
           Thin Client hardware:

- Go to the NetVista Publications web site:
                   http://www.ibm.com/nc/pubs
                 - Under the Thin Client Hardware Information heading, click
                   Hardware Information.
                 - Scroll down the page until you see the following:
                   IBM NetVista N2200 Thin Client Reference
                   -or-
                   Setting Up IBM Network Station Hardware - Type 8364
                   (Models Exx & Txx)
                 - Click the PDF link to the right of the desired language.

          1.2.4 IBM NetVista Thin Client support web site:
                http://www.ibm.com/pc/support
                 - Select "NetVista thin client" from the "Browse the support
                   site" drop down list, then select the "NetVista Thin
                   Client" icon.

2.0 GENERAL NOTES

2.1 Thin clients supported by IBM NetVista Thin Client with TurboLinux
    include:
    - IBM NetVista N2200, ethernet and token ring
    - IBM NetVista N2800, ethernet and token ring

2.2 The latest NS Boot Version is included in the install. The first
    time you boot your thin client, you should use the NSBoot Setup
    Utility to update to the latest boot version. See the
    ReadmeClient.html file located in
    [drive:]\{float}\NetVista_Linux\Linux\IBM for information about
    updating your NS Boot Version.

3.0 PREREQUISITES

Before you install IBM NetVista Thin Client with TurboLinux, you must
meet these prerequisites.

3.1 Thin Client for Linux is supported on the following
    Windows 2000 or Windows NT 4.0 servers:
    - NT 4.0, Service Pack 6 or later
    - NT 4.0, TSE, Service Pack 5 or later
    - Windows 2000 Server, Service Pack 1 or later
    - Windows 2000 Advanced Server, Service Pack 1 or later

3.2 Disk space required for this install is approximately 450 MB.

3.3 The NetVista thin client boot monitor dated 07/16/01 or later
    is required on your thin client. It is included in the
    installation tree as bflash.2800 and bflash.2200.

See the ReadmeClient.html file located in
        [drive:]\{float}\NetVista_Linux\Linux\IBM for information about
        updating your NS Boot Version.

4.0 INSTALLATION

4.1 To install IBM NetVista Thin Client with TurboLinux from this CD,
        run the Setup.exe program from [drive:]\Windows\products\nvTCLinux
        where [drive:] is your CD ROM drive.

4.2 The installation process will take approximately 20-25 minutes.
        The final install screen may take a couple of minutes to close.

4.3 Install modes

        The setup program will automatically detect your type of install.
        - New
          Install for the first time. All install options are presented
          and the product is fully installed.
        - Service Update
          This will update the current installation with a newer service
          level. All original install options are preserved during this
          update.
        - Reinstall
          This runs when you attempt to install the same service level as
          the current installation. All original install options are
          preserved and files are reinstalled. This will not overwrite
          files on the system that have been modified since the last
          install.
        - Uninstall
          When selected from the Windows Add/Remove Programs utility,
          this option will uninstall the current installation. User
          files that were created from the NetVista Thin Client
          applications are not removed. They may manually be deleted
          if they are no longer needed. You may wish to keep these
          files if you need to reinstall the product at a later time
          in order to preserve environment and user data.

4.4 Authentication mode for server booted clients

        You can select an authentication mode for server booted clients:
        authenticated or non-authenticated.

        If authentication is enabled, server booted thin clients stop at
        a login screen. You can create a system default desktop using
        the Setup Utility; the system default option is only available
        to the "root" user. Other users can have their own desktops,
        which override the system default desktop. Note: the system
        default desktop includes Setup Utility desktop mode and any ICA
        client connections configured in the ICA Remote Application
        Manager. Each user has their own home directory (hence their
        own Netscape bookmark and proxy configuration files, etc).

        If authentication is not enabled, thin clients power up directly

to a desktop (there is no authentication). You can create a
system default desktop using the Setup Utility. Other thin
clients can have their own machine specific desktops (by MAC or
IP address), which override the system default desktop.
Note: the system default desktop includes Setup Utility desktop
mode and any ICA client connections configured in the ICA Remote
Application Manager. Each thin client has its own machine
specific home directory (hence its own Netscape bookmark and
proxy configuration files, etc).

All Setup Utility desktop modes (launch button and the full
screen single client modes) are available for authenticated and
non-authenticated installations.

Flash booted thin clients do not authenticate independent of
how the authentication is selected during install. If you will
have all flash booted thin clients (installing the Linux client
to customize the flash card contents), you can use either an
authenticated or non-authenticated install.

4.5 Server-based machine specific directories

During the installation a directory will be created that will
contain information that is specific to each client. Client
specific data contains information that cannot be shared between
clients such as print spool directories and snmp community
configurations. This information is kept persistent across
sessions.

You will be asked how the machine specific directories will be
created. Selecting the MAC address is useful in a DHCP
environment where a client may not be getting a static IP
address but you still want that client to have its own specific
data. Select the IP address option if you are using static
IP addresses and want to keep client specific data organized
in this manner.

4.6 Coexistence with other IBM NetVista Thin Client products is
not supported at this time.

IBM NetVista Thin Client with TurboLinux should not be
installed on a server that has IBM NetVista Thin Client
Manager V2R1, IBM Network Station Manager V1R3 or IBM NetVista
Thin Client Express Service Utility installed. The IBM
eNetwork on Demand NFS Server used by these products is not
compatible with the NFS service used in the Thin Client with
TurboLinux product.

IBM NetVista Thin Client Manager Operations Utility is
supported with this version of IBM NetVista Thin Client
with TurboLinux.

5.0 BOOTING THE THIN CLIENT FROM THE SERVER

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5.1 Update the client boot monitor to a level that supports booting
    Linux (see Prerequisites).

5.2 Boot the client in NSBoot mode and modify the following parameters
    in the boot menus as follows:

    5.2.1 Display settings
       - Set your desired display setting.

    5.2.2 Network settings

       - Network priority
         Set to use NVRAM or DHCP, disabling all other options.
         - If NVRAM, set client IP address, Domain name server IP
           address, Gateway IP address, and Subnet mask.
         - If DHCP, make sure a server responds to DHCP requests

       - Boot file source
         Set to Network.

    5.2.3 Boot file server settings

       - 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  - First choice


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6.0 ONCE LINUX IS RUNNING ON THE CLIENT
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6.1  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.


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7.0 KNOWN PROBLEMS AND POSSIBLE SOLUTIONS
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7.1 Password and adduser commands

    Using the passwd and adduser commands does not work consistently
    when booted from an NT server.  If you receive a "Critical
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error - immediate abort" error after attempting to use the
passwd command or "adduser: unable to lock password file"
message when attempting to use the adduser command, you may
be seeing this problem. Use the KDE User Manager (User Config
from the ICE menu or type 'kuser' from an Xterm window), where
you can configure users and change user passwords.

If you do receive either of these error messages after using
either passwd or adduser, there will be lock files created in
your /etc directory. As root, you should delete those files.
There are five different potential lock files:
  passwd.lock
  shadow.lock
  pwd.lock
  spwd.*
  pwd.%d.*

Note: Both the spwd.* and pwd.%d.* files are created with
the process id (*) as part of the file name, so you would
see names like spwd.317 and pwd.%d.317.

7.2 Uninstallation of IBM NetVista Thin Client with TurboLinux

If you have reinstalled the product (installed a current
version on top of your current installation) and then perform
an uninstall, you may see a Component Transfer Error reporting
a catastrophic failure. If you see this message, you may
attempt the uninstall multiple times to remove the product
from the server. User files that were created from the
NetVista Thin Client applications are not removed. They may
manually be deleted if they are no longer needed. You may
wish to keep these files if you need to reinstall the product
at a later time in order to preserve environment and user
data.

7.3 System default settings in non-authenticated mode

If you are using non-authenticated mode in Service Update 2,
system default settings may not have been saved when selected
in the Setup Utility. Therefore if you are upgrading from Service
Update 2 in non-authenticated mode, you can reset your system
settings to be used as system defaults by selecting the option
to save as system default in the various panels under the Setup
Utility's Settings tab.

8.0 SERVICE AND SUPPORT

8.1 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 self help can be found at our support web site:
http://www.ibm.com/pc/support
Select "NetVista thin client" from the "Browse the support site" drop
down list, 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 at
http://www.ibm.com/services/its/us/swsupport.html

8.2 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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- NetVista Thin Client Manager Operations Utility

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