Virtual Workstation Support

Prerequisites:

Users must have Valid Active Directory IDs and a Virtual Workstation that has membership to CORPDMN and correct group permissions for access.

Windows XP

General

Microsoft Remote Desktop is currently the only supported access method for users to access **Windows XP Virtual** Workstations.
Note: All necessary groups are created and assigned for each workstation when auto provisioned.

Permitted

- Only Microsoft Remote Desktop access is supported and permitted for user access.
- Microsoft Remote Desktop access will be granted if valid XIDs exist at time of request.
- Remote Administrative access requires IP LAN access request and must be completed by IP
- Any additional remote user or groups changes for access must be completed by an IP LAN access request.

Not Permitted

- Access to the Microsoft Virtual Server Administrative Website and Console access via the Website for end users is not permitted. i.e. http://virtualserver.ntl-city.com:1024
- Use of the Microsoft Virtual Machine Remote Control (VMRC) client utility is not permitted or supported for XP end user access.

Windows XP Virtual Workstation Naming Standards

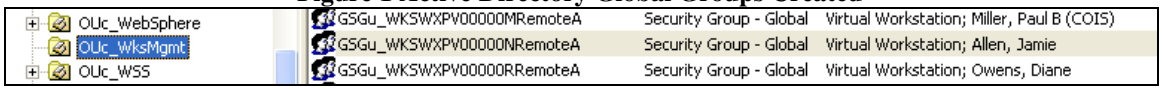
Generic Virtual Workstation Naming Standard for CORPDMN virtual Windows XP workstations have the prefix of **WXP** followed by **"V"** for Virtual identification and followed by six generic characters to complete the name (i.e. WXPV00000H).

Active Directory Groups for Windows XP Remote Desktop Access

Microsoft Remote Desktop access is granted to Virtual XP workstations through domain global groups that represent the workstation. The user XID is added as a member of the global group.

- Group Syntax: **GSGu_WKSWXPV*xxxxxx*RemoteA** where the **WXPV*xxxxxx*** must match the computer object name in Active Directory.
- Group Location: The global group is placed in the Workstation Management OU in Active Directory at **"OU=OUc_WksMgmt,OU=OUg_Resources,DC=corp,DC=ntl-city,DC=net"**. The group will have a description of Virtual Workstation followed by a semi colon and the Management/Owner of the workstation for all approvals, billing, and questions (i.e. Virtual Workstation; Allen, Jamie)

Figure 1 Active Directory Global Groups Created



Windows 2000

General

Microsoft Virtual Machine Remote Control (VMRC) client utility is currently the only supported access method for users to **Windows 2000 Virtual** Workstations.
Note: All necessary groups are created and assigned when each workstation is auto provisioned and built.

Permitted

- Only Microsoft Virtual Machine Remote Control (VMRC) client utility is supported and permitted for user access.
- VMRC access can be granted if valid XIDs exist at time of request.
- Administrative access requires IP LAN access request and must be completed by IP
- Additional user or groups changes for access must be completed by an IP LAN access request.

Not Permitted

- Remote Desktop is not a feature available in Windows 2000
- Access to the Microsoft Virtual Server Administrative Website and Console access via the Website for end users is not permitted. i.e. http://virtualserver.ntl-city.com:1024

Windows 2000 Virtual Workstation Naming Standards

Generic Virtual Workstation Naming Standard for CORPDMN virtual Windows 2000 workstations have the prefix of **W2K** followed by **"V"** for Virtual quick identification and followed by six generic characters to complete the name (i.e. W2KV00000A). Workstations are assigned to next available workstation host as available capacity.

Active Directory Groups for Windows 2000 VMRC Access

Virtual Machine Remote Control (VMRC) access is granted to a Virtual Windows 2000 workstation through domain global groups that represent the workstation. The user XID is added as a member of the global group.

- Group Syntax: **GSGu_WKSW2KVxxxxxxRemote2K** where the **W2KV*xxxxxx*** must match the computer object name in Active Directory.
- Group Location: The global group is placed in the Workstation Management OU in Active Directory at **"OU=OUc_WksMgmt,OU=OUg_Resources,DC=corp,DC=ntl-city,DC=net"**. The group will have a description of Virtual Workstation followed by a semi colon and the Management/Owner of the workstation for all approvals, billing, and questions (i.e. Virtual Workstation; Allen, Jamie)

Windows 2000 Specific Permissions

Note: The necessary permissions are assigned when each workstation is auto provisioned and built.
To meet security concerns, the following NTFS permissions are applied for Windows 2000 Virtual workstations and their directory structure on the host servers.

The Global Group that represents the access for a Windows 2000 Virtual workstation (**GSGu_WKSW2KVxxxxxxRemote2K**) is added to a Local group created on each host assigned for the Guest workstations (**GLCfsaRO_WKSW2KVxxxxxx**). It is assigned NTFS permissions to that Guest directory and files for that user.

The locally created group (**GLCfsaRO_WKSW2KVxxxxxx)** is assigned NTFS permissions of **Read & Execute, List Folder Contents, and Read** to just the folder for that guest. *See Figures Below.

Access Flow

Domain User => Domain Global Group => Host Local Group => NTFS Permission to Guest Folder

Figure 2 Locally Created Groups for W2K Access

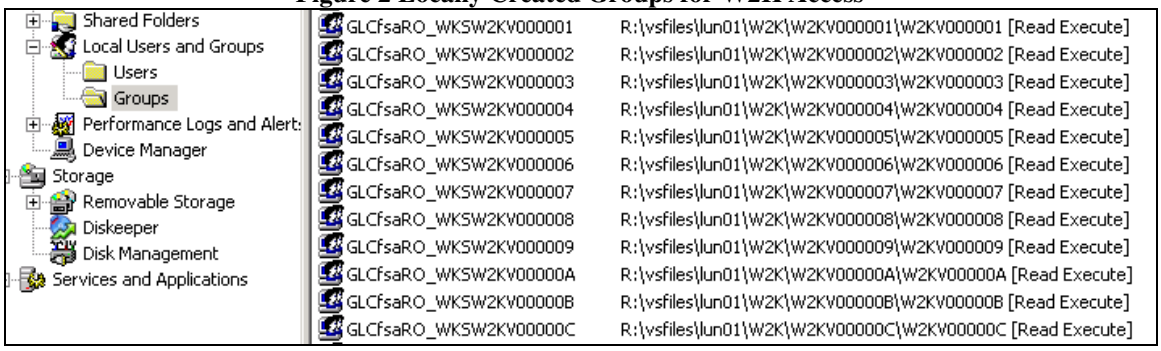


Figure 3 Local Group Membership with Global Group

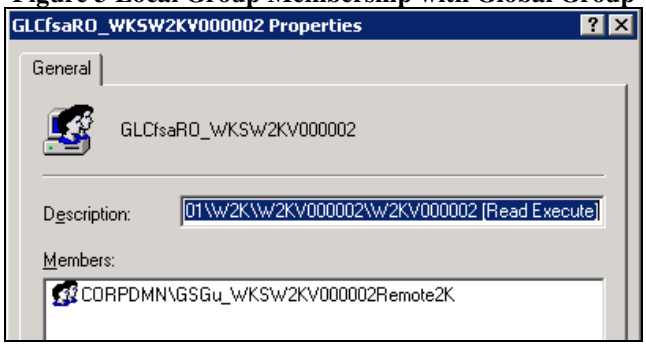
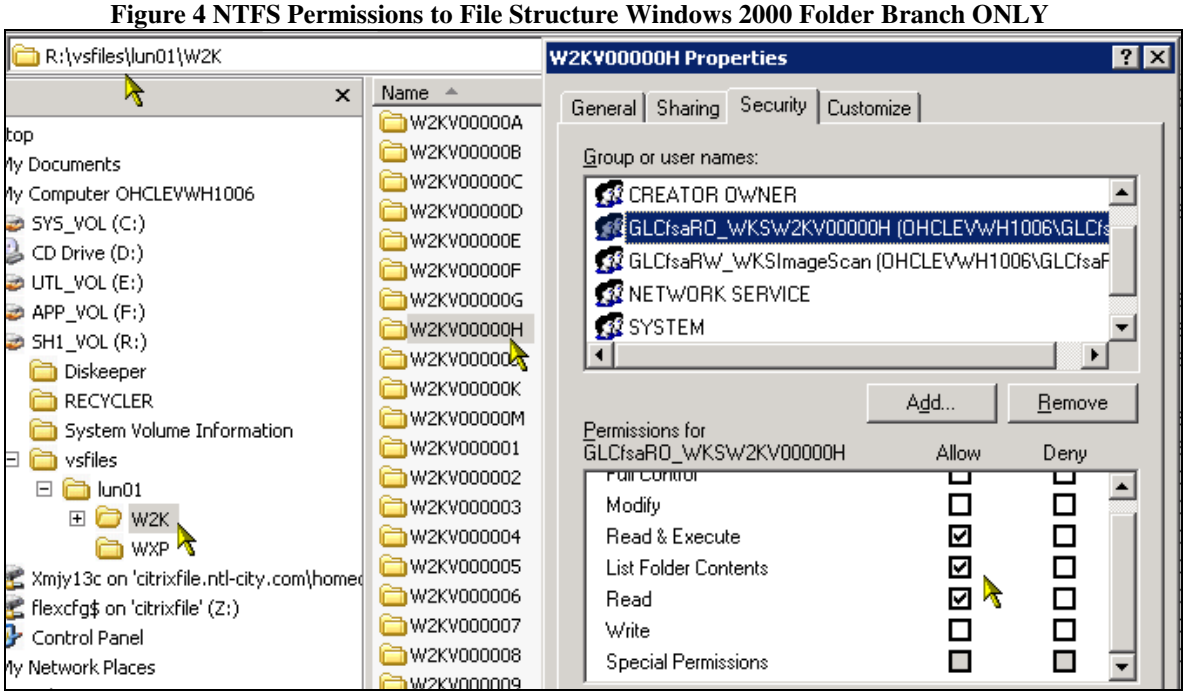


Figure 4 NTFS Permissions to File Structure Windows 2000 Folder Branch ONLY



Microsoft Virtual Server Support

To support virtual workstations, two possible scripts are processed at the completion of each host build depending on whether the host will have Windows XP, Windows 2000 or both (Both OS types are not currently implemented on a single host).

Both scripts are located at \\citrixfile.ntl-city.com\flexcfg$\vwcfg\BuildScripts and are run from a command prompt through a mapped drive to the location. **Scripts are run by the II group for host builds but can be run at anytime by support technicians.**

1. The "VWH_HOSTSETUP.vbs" file is run prior to any others and sets basic configurations for all hosts and is located at: \\citrixfile.ntl-city.com\flexcfg$\vwcfg\BuildScripts\VWH_HOSTSETUP.vbs
2. The "VWH_IMAGESCAN_SECURITY.vbs" sets the directory security for hosting Windows 2000 workstations specifically. It only is necessary on hosts holding these guests but may be run on any host. \\citrixfile.ntl-city.com\flexcfg$\vwcfg\BuildScripts\VWH_IMAGESCAN_SECURITY.vbs
    a. This script reads all actively registered guests, evaluates the guest operating system, creates the local groups for Windows 2000 and sets the directory permissions
    b. The existence of the Domain Global Group to add as a member of the locally created group is required
    c. The Host "Default virtual machine configuration folder" property must have the following path exit and be defined for scripts to function correctly:
        i. R:\vsfiles\lun01\
    d. The Host "Search Paths" property must have the follow paths exit and be defined for scripts to function correctly:
        i. C:\Documents and Settings\All Users\Documents\Shared Virtual Machines\
        ii. R:\vsfiles\lun01\W2K
        iii. R:\vsfiles\lun01\WXP

Citrix Access to Virtual Workstations XP and Windows 2000

Users that are accessing Virtual XP and Windows 2000 workstations via NCC Citrix infrastructure will need the correct published application for "Microsoft Remote Desktop" or "VMRC". These are advertised when users are placed in the correct Enterprise Role groups in Active Directory.
The advertised icon will execute and call the profile script:
\\citrixfile.ntl-city.com\flexcfg$\vwcfg\ReadVW_v2.vbs

The \\citrixfile.ntl-city.com\flexcfg$\vwcfg\ReadVW_v2.vbs parses the \\citrixfile.ntl-city.com\flexcfg$\vwcfg\VW.INI file which maps the users XID to Virtual Workstation and Host assigned.
Note: The VW.INI file is updated when each workstation is auto provisioned and built.

VW.INI file is located at \\citrixfile.ntl-city.com\flexcfg$\vwcfg\VW.INI and the format of the VW.INI is "XID=Workstation Name, Operating System, Host" Assignment.

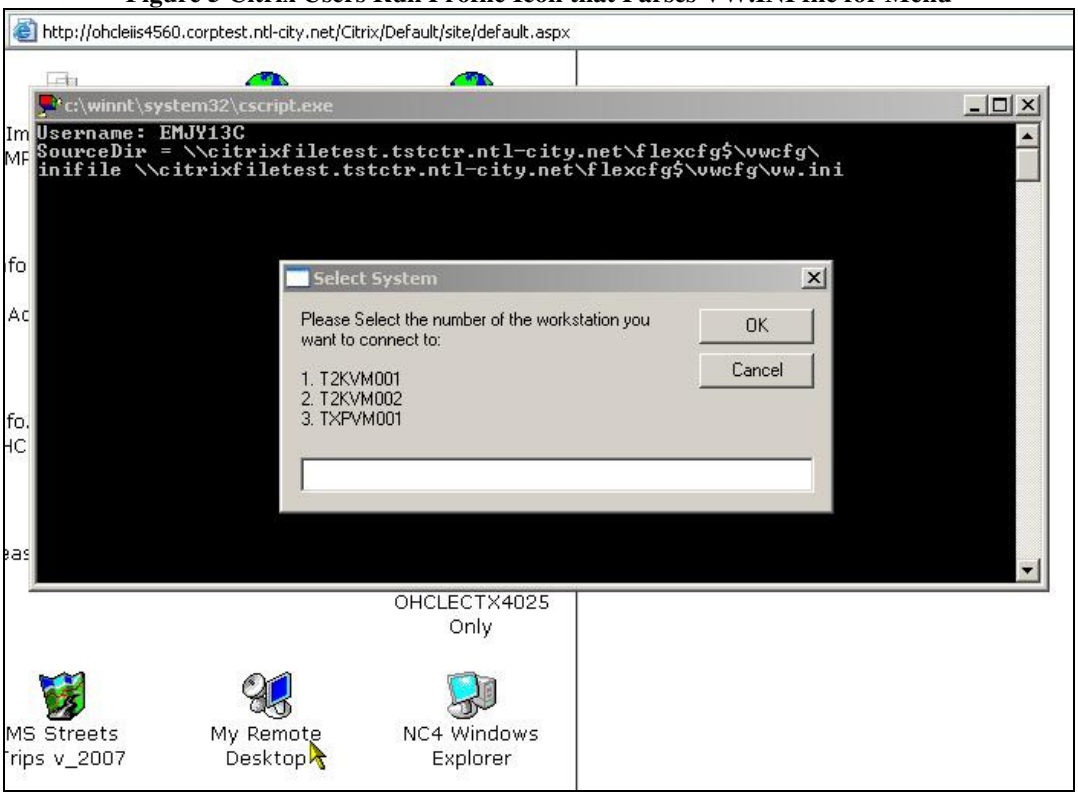
[ByUsername]
XMZPO3M=WXPV000001,XP,OHCLEVWH1007
XNQCK3N=W2KV000002,2000,OHCLEVWH1006
XRYKO3H=W2KV000003,2000,OHCLEVWH1006

Citrix Access Flow for Virtual Workstations

Domain User => Domain Enterprise Role Group => Citrix Profile Group Assigned => Profile Icon Displayed => VW Script called => Parsed VW.INI for ID and Machine Assignments => Menu Displayed => Remote Desktop called for XP or VMRC for Windows 2000.

Users selecting the published application icon are presented with at prompt for selecting the workstation that is assigned via the VW.INI file similar to the figure below. *With new script ReadVW_v2.vbs.

Figure 5 Citrix Users Run Profile Icon that Parses VW.INI file for Menu



ClearView Virtual Workstation Provisioning

Provisioning of Virtual workstations has been automated via ClearView (http://ClearView). For a how-to-guide on how to use ClearView's Service Request Module to request and provision a virtual workstations, please reference the http://clearview/help/modules/ServiceRequest/UserGuide.pdf link.

The end result of a virtual workstation being automatically provisioned is the same now as it was prior to introducing ClearView as the tool used for auto-provisioning. These processes can work in parallel to the manual builds which the Infrastructure Implementation team would perform.

Logging

Event logs of ClearView service actions can be found by accessing the ClearView event log on each host that has been defined for auto provisioning.

Features Availability

- New Builds of Virtual Workstations (June 2008)
  - XP Virtual Workstations
  - 2000 Virtual Workstations
- Decommissions of Virtual Workstations (estimated August 2008)
- Rebuilds of Virtual Workstations (estimated August 2008)

The ClearView documents provide a high-level view of the current auto-provisioning process of virtual workstations via ClearView which are not intended to be referenced or used as part of support calls - it is intended to be used to help the technicians understand how the workstation was initially provisioned

Engineering Design References

The following engineering documentation link was the documentation that has the manual steps documented for deployment of the ImageScan (Windows 2000) virtual workstations which has shaped the major steps in deploying and supporting virtual workstations at NCC. However most of the steps are automated with a VBScript file. The editing of the VW.INI file was not included in the script originally.

Linked Documentation: ARC ImageScan Design Document

Publish Date: 6.17.2008
Version: 1.0