Sharpdesk V3.3

*Push Installation Guide
for system administrator
Version 3.3.04*

SHARP®

Copyright

© 2000-2010 by SHARP CORPORATION. All rights reserved. Reproduction, adaptation or translation without prior written permission is prohibited, except as allowed under copyright laws.

Trademark Acknowledgements

SHARP® is a registered trademark of SHARP CORPORATION.

Microsoft® and Windows® are registered trademarks of Microsoft Corporation.

Internet Explorer® is registered trademarks of Microsoft Corporation.

All other trademarks identified herein are the property of their respective owners.

Table Of Contents
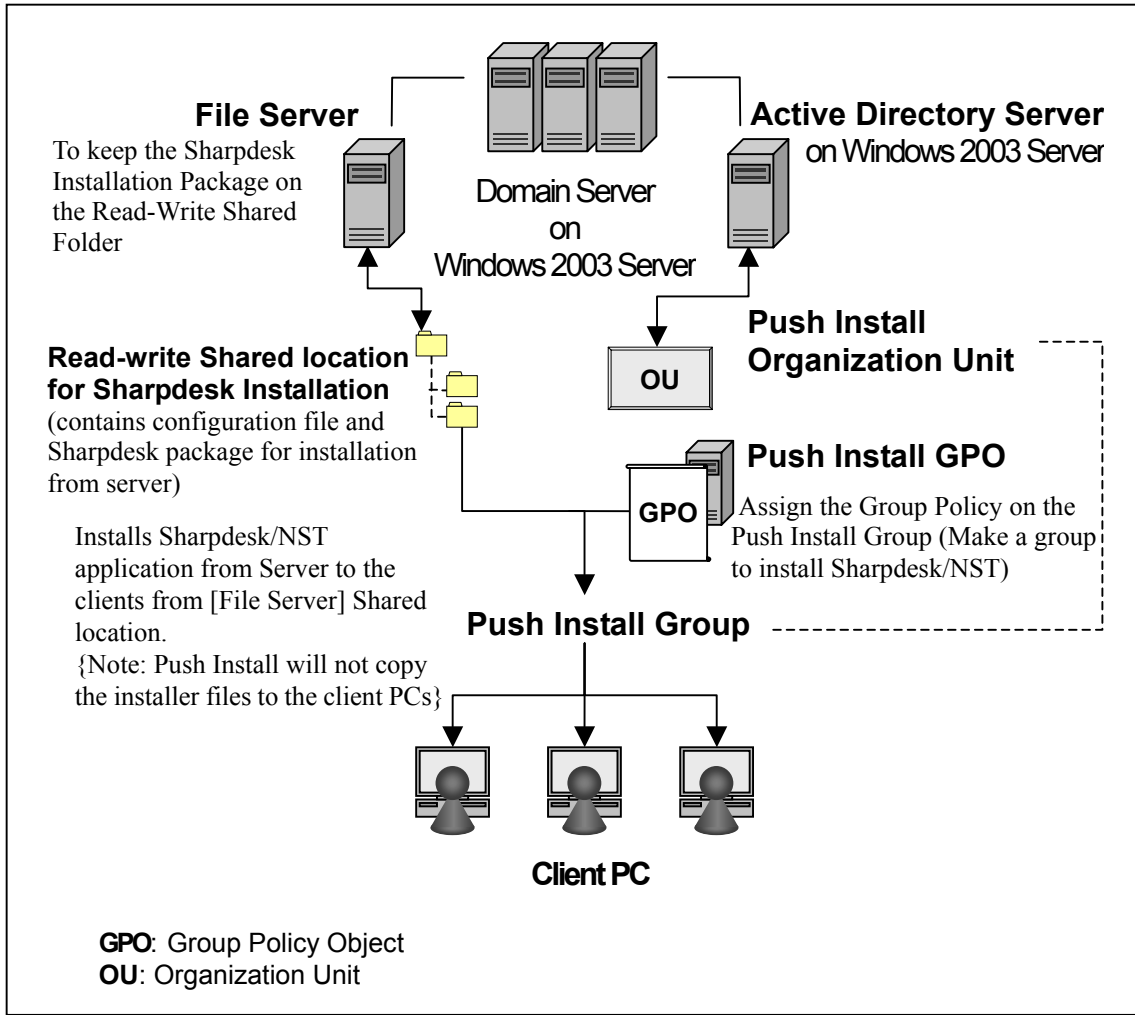
Chapter 1
Introduction

Overview

Push Install helps the system administrator to do silent installation for one or more client computers. PUSH installation essentially has 3 parts.

Configuring the initial details into the Configi.ini file using the "PUSH Install Configuration tool".

Doing the PUSH operation using Microsoft Active Directory. This will deploy the software into client PCs.

The Sharpdesk/NST will be installed in client PC by the Installer.

Since installation package requires a serial number, the configuration tool in the Sharpdesk/NST installation package will embed the appropriate serial number in the package prior to "pushing" it to the Client PCs.

File Server

To keep the Sharpdesk Installation Package on the Read-Write Shared Folder

Domain Server
on
Windows 2003 Server

Active Directory Server
on Windows 2003 Server

Read-write Shared location for Sharpdesk Installation
(contains configuration file and Sharpdesk package for installation from server)

Installs Sharpdesk/NST application from Server to the clients from [File Server] Shared location.
{Note: Push Install will not copy the installer files to the client PCs}

OU

Push Install Organization Unit

Push Install GPO

GPO

Assign the Group Policy on the Push Install Group (Make a group to install Sharpdesk/NST)

Push Install Group

Client PC

GPO: Group Policy Object
OU: Organization Unit

Chapter 2
Setup for Push Installation

Sharpdesk/NST may also be installed on Microsoft XP, Vista and Windows 7 PCs using the "push install" feature of Windows Server 2003 Active Directory. In order to perform an Active Directory software push install, some setup is required. This Chapter describes the steps necessary to accomplish a Push Install for Sharpdesk/NST. The person performing the Push Installation is expected to be familiar with Active Directory administration and concepts. Experience with creating and managing group policies in Windows Server 2003 is also required.

Minimum System Requirements

To deploy Sharpdesk/NST with push installation, the required system network configuration must contain:

Microsoft Windows Server with Microsoft Active Directory

Network Share folder

PC "targets" (Clients)

Administrator stores one installable copy of Sharpdesk/NST on the Network Share, and the Server handles the administration of the push installation to the Client PCs.

Minimum Server Requirements

Server	Windows 2003 Server (or compatible)
Network	Windows Networked environment
Active Directory	The Active Directory domain containing all Client PCs

Minimum Network Share Requirements

The network configuration must contain a Network Share folder with Write permission for all authenticated users.

Minimum Target Client Requirements

To successfully install and use Sharpdesk/NST, your PC must meet the following minimum requirements:

Operating System: Attribute	Windows XP Professional	Windows Vista Business/Enterprise/ Ultimate	Windows 7 Professional/Enterprise/Ultimate
Service Pack:	SP2	--	
Processor:	800 MHz 32-bit /64-bit	1GHz 32-bit/64-bit	
Memory:	512 MB RAM	1 GB RAM/2 GB RAM (Windows 7 64-bit)	
Available disk space:	500 MB	500 MB	
Graphics capability:	SVGA	Direct X 9 support with 128 MB video RAM	
Internet Explorer:	V6.0 or later	V7.0 or later	V8.0
Network hardware:	10Base or 100Base Ethernet card		
Network software:	TCP/IP network software (WinSock2 installed on all platforms)		
Internet connection:	Necessary to access Sharp Internet product support site		

Microsoft .NET Framework (in advance)

"XPS File Format Support" requires portions of .NET Framework 3.0 or later. (.NET Framework 3.0 is recommended)

If "XPS File Format Support" is needed with Sharpdesk, please install .NET Framework in advance of installing Sharpdesk.

> Microsoft reference for .NET Framework Deployment:
>
> http://msdn.microsoft.com/en-us/library/aa964979(VS.85).aspx
>
> http://msdn.microsoft.com/en-us/library/aa480217.aspx

No prior version of Sharpdesk/NST (in advance)

Any prior versions of Sharpdesk/NST must NOT exist on the Client PCs. You must manually uninstall the prior version of Sharpdesk/NST from all Client PCs before starting the push installation. If a prior version of Sharpdesk/NST is detected on a Client PC during the push installation, the software will not be installed on that Client PC.   A message will be sent to the Client PC's Event Viewer stating this version is not supported for upgrade. Uninstall Sharpdesk/NST from the Client PC and try the push install again.

Note: Please refer to the "Error logs with Event Viewer" in detail.

Server Preparation

The following instructions assume the following conditions have been met:

Windows Server 2003 Active Directory has been installed.

Group Policy Management Console Tool has been installed.

Configuration of the push installation will be performed on a domain controller. The shared folder containing the installation package can reside on the domain controller or on a file server.

Push installation may be possible in other environments. The intent of these instructions is still valid, but the details will need to be modified to fit the context of the server configuration.

Network Share Preparation

Create a folder on a file server or domain controller that will hold the Sharpdesk/NST push install package. Share the folder, ensuring that authenticated users have read and write permissions for the share. Copy the installation package into the folder and make sure its files are accessible from the network share.
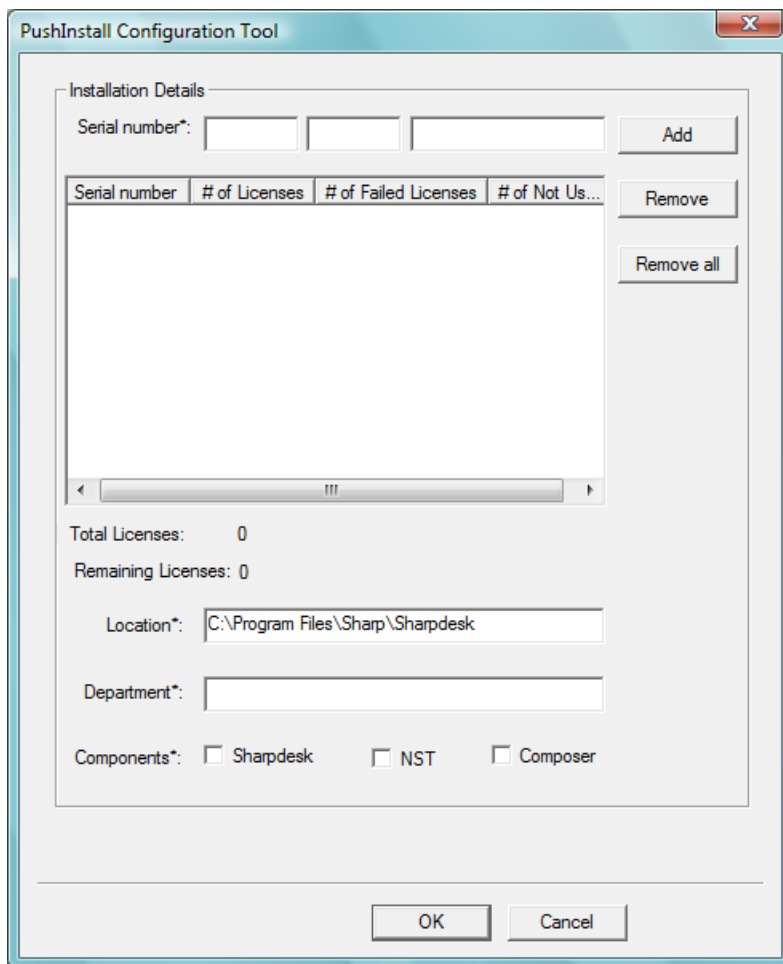
Assign Serial Numbers to the Client PCs

Each instance of Sharpdesk/NST on a Client PC contains a valid serial number. The configuration tool in the Sharpdesk/NST installation package will embed the appropriate serial number in the package prior to "pushing" it to the Client PCs. The configuration tool accepts all serial numbers that are valid for Sharpdesk/NST and assigns one to each copy of Sharpdesk/NST as it is pushed to a Client PC. Note that some serial numbers can be used for more than one activation; the configuration tool will keep track of each use and select a new serial number when its valid license count is exhausted. When all of the authorized serial numbers have been used, the push installation process will stop. You must have sufficient serial numbers/licenses to cover all the Client PCs you are going to install. The following steps walk you through the operation of the configuration tool.

Navigate to the Network Share Folder containing Sharpdesk installation package.

Make sure that the Network Share Folder has "Read-write" permission.

Double click on the "PushInstallConfigTool.exe" tool in the Network Share Folder and the following screen appears:

Enter a Sharpdesk/NST serial number and click the "Add" button. Enter enough valid serial numbers to cover all the Client PCs you want to install, clicking the "Add" button after each one. The list of all serial numbers and the number of users they cover will be displayed in the window.

Enter the Location that will be used on each of the Client PCs to store the Sharpdesk/NST software. The Location should conform to Windows folder naming conventions and may not be a mapped network drive. The Location may not contain any of these characters:

/ , ; # * ? \ < > | % $

The default is: "C:\Program Files\Sharp\Sharpdesk".

Enter the Department that the end users of the Client PCs belong to.

Finally, select which software components (Sharpdesk, NST, and/or Composer) you want installed on the Client PCs.

Click the "OK" button to create the configuration file (config.ini) in the Network Share folder and exit the configuration tool. The serial numbers have been assigned for the Client PCs.

Create the Organizational Unit

If an Organizational Unit (OU) containing the Client PCs does not already exist, use Active Directory Users and Computers to create a new OU that contains the target Client PCs for the Sharpdesk/NST push installation. The group policy will be applied to this OU.

Open "Active Directory Users and Computers" from the Administrative Tools in control panel.

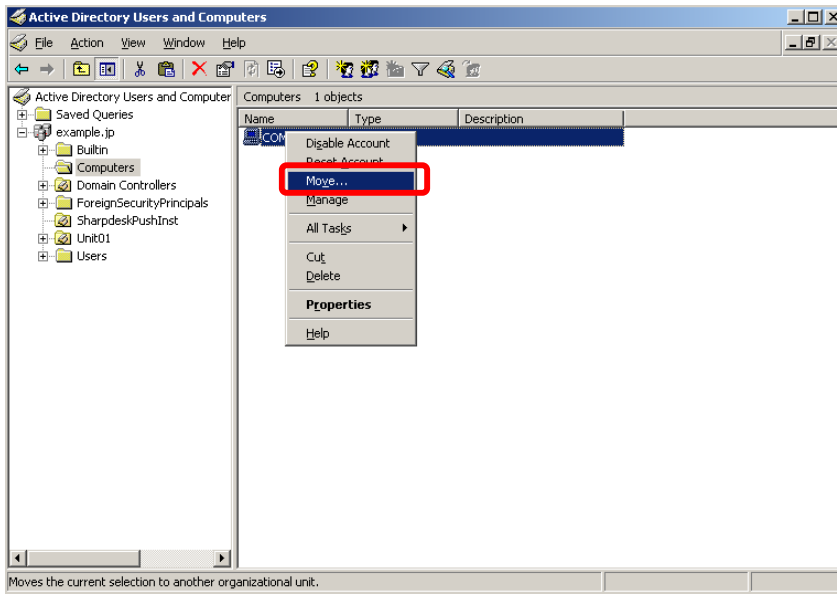Right-click on the root of where you want the Organization Unit to reside.

Select "New" and then "Organizational Unit".

Give a name (e.g. SharpdeskPushInst).
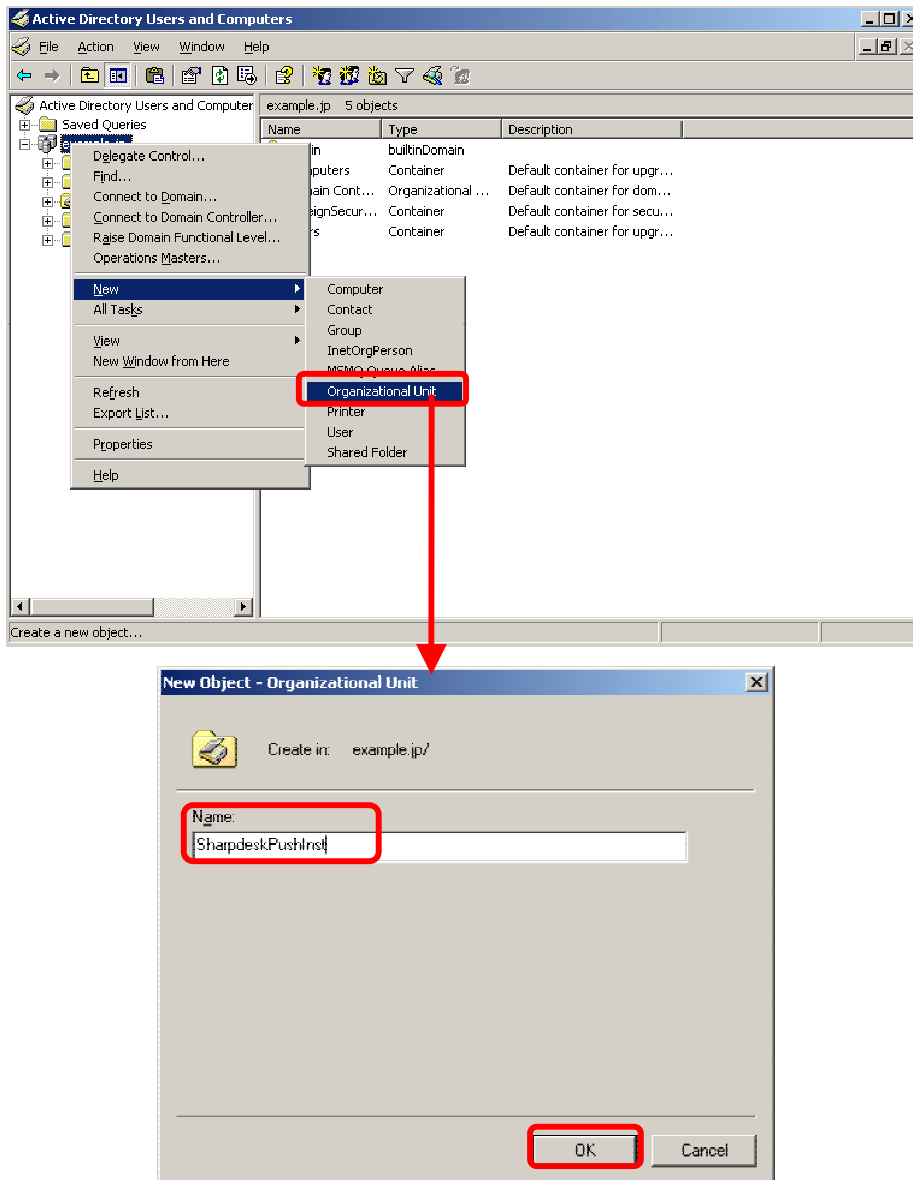
Populate the Organizational Unit with target computers

Open Computers in the tree view; it lists every computer in the domain.

Right-click on the machines to be pushed to and select "Move".

Move them into the new OU (e.g. SharpdeskPushInst).
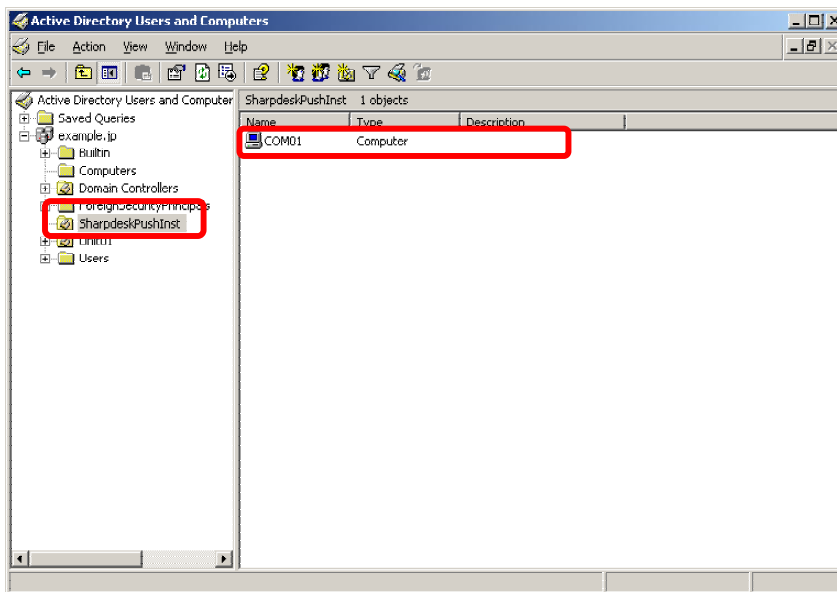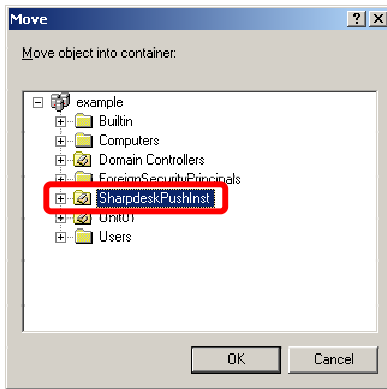
Create and link the Group Policy Object

Use the Group Policy Management Console (GPMC) to create and link a new Group Policy Object (GPO) to the OU that contains the target Client PCs.   The GPMC can be opened using the Administrative tools menu or through the Group Policy tab of the properties dialog box for the OU.

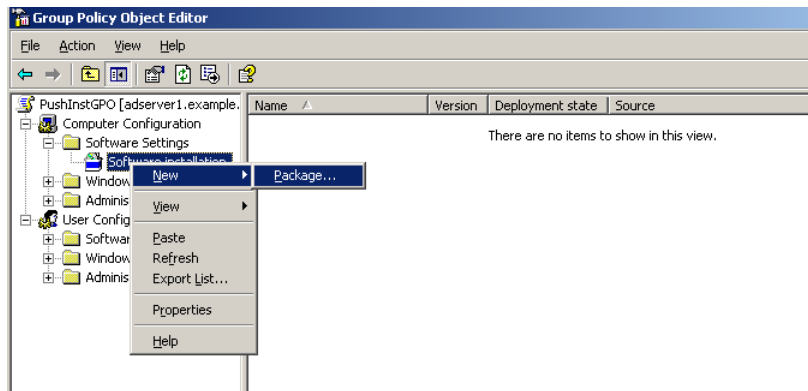Right click on the new OU and select Properties.

Select the "Group Policy" tab.

Click the "New" button and give it a name (e.g. PushInstGPO).
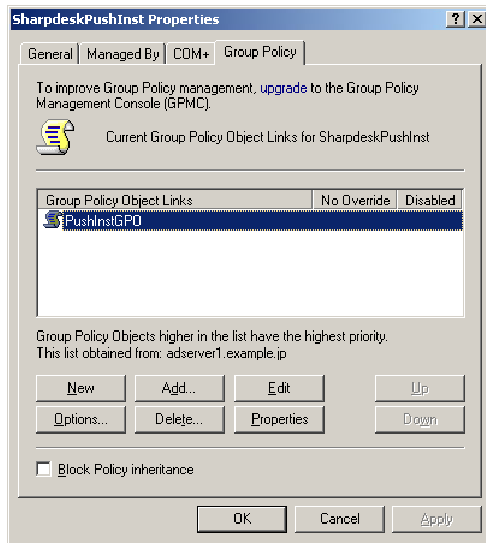
In the tree view, right-click on the new GPO and select Edit. The opens the Group Policy Object Editor.

Under "Computer Configuration", select "Software Settings".

Right-click "Software installation" and select "New" and then "Package".

Browse to the shared network distribution point folder that contains the MSI package. Go through the My Network gate to ensure that the path will be a network rather than a local path.

Locate and select the MSI package in shared folder through network path. Do NOT select it as local package.
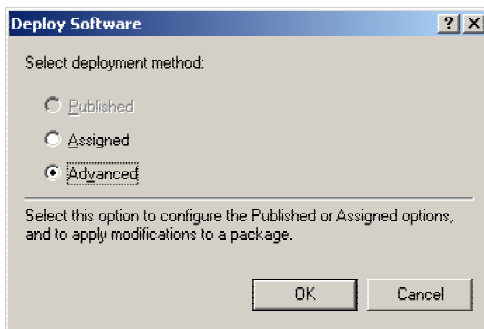e.g.: \\<Servername>\SHARE\Sharpdesk\Sharpdesk.msi
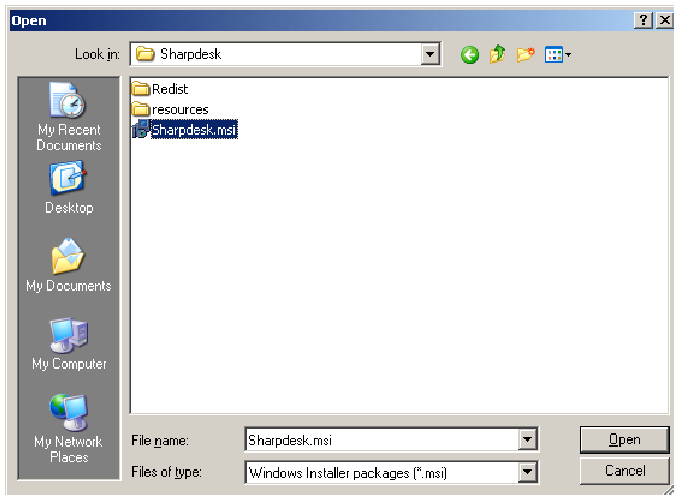
Select the "Open" button.

Selecting "Radio" button in "Deploy Software" dialog.

If the targeted installation is English(US), select the Assigned radio button on the "Deploy Software" dialog (this will keep the server ready to push the installation to the client after the client has rebooted).
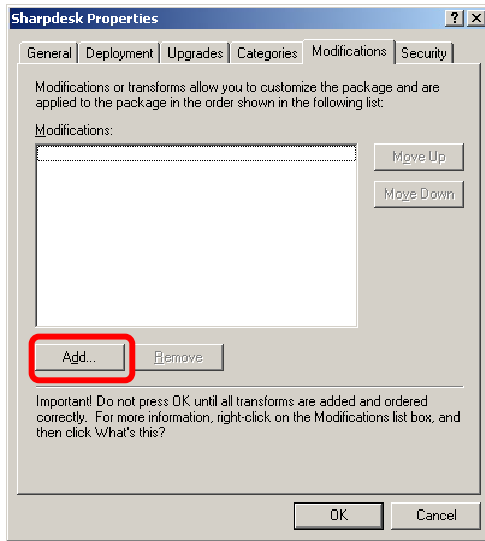
Select the OK button.

If the targeted installation is any other language other than English(US), Select advance radio button.

Select the "Modifications" tab.

Click the "Add" button.

Select the transform file (.mst) from the disk location as listed in the below table for the respective language.

Select the "OK" button.

| S.No	Transform File	Language
1	1028.mst	Chinese (Traditional)
2	1031.mst	German
3	1033.mst	English (US)
4	1034.mst	Spanish
5	1036.mst	French (France)
6	1040.mst	Italian
7	1043.mst	Dutch
8	1049.mst	Russian
9	1053.mst	Swedish
10	2052.mst	Chinese (Simplified)
11	2057.mst	English (UK)
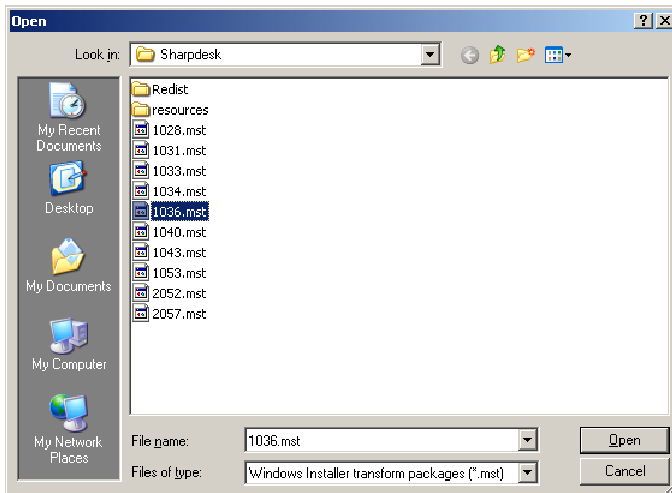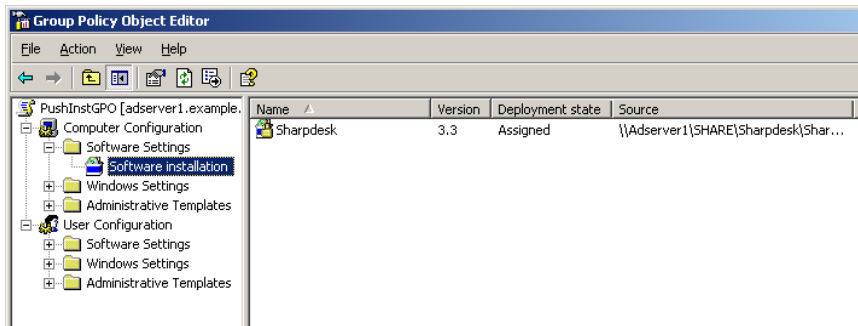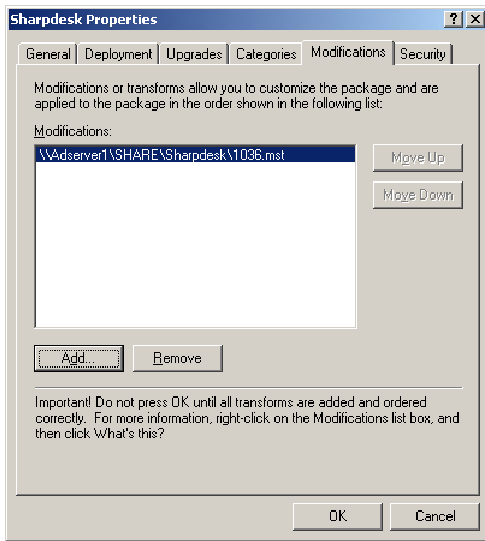
Edit the Group Policy Object

After you have created the GPO, use the Group Policy Object Editor to configure the GPO for the push install. When creating the install package, make sure to select the "Assign to Computers" option in the "Deploy Software" dialog box. Make sure that the software installation package points to the network share containing the installation files and that the following items are **enabled** in the Windows Installer section for the software package in the GPO:

Right click on the OU and select Properties.

Select the Group Policy tab.

Select the GPO and right click and select the "Edit" button.

Click on "Computer Configuration" -> "Administrative Templates" -> "Windows Components" -> "Windows Installer".
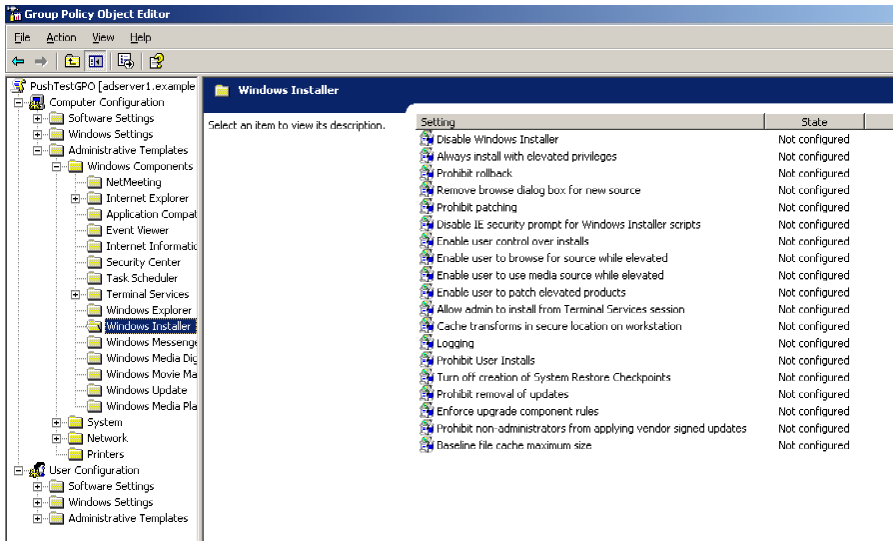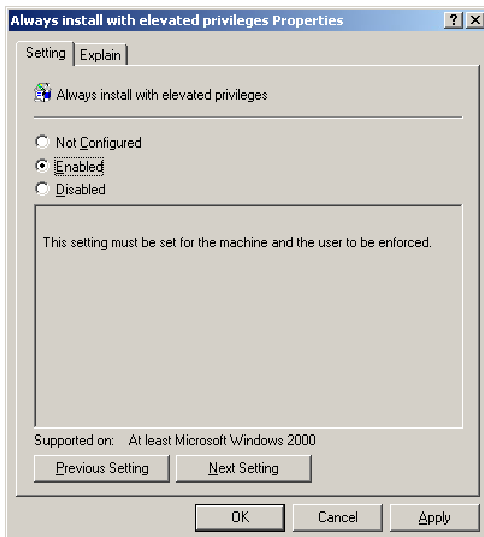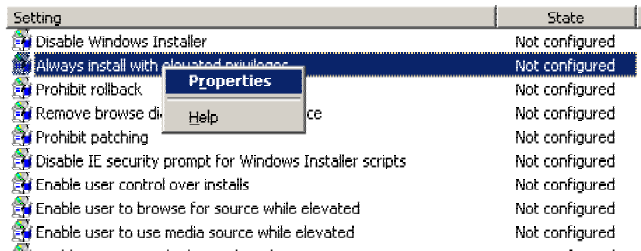
Set the following Group Policy items to **Enable**

Always install with elevated privileges.

Enable user control over installs.

Disable Windows Installer (make sure the state to the right is **Enable**).

Setting	State
Disable Windows Installer	Enabled
Always install with elevated privileges	Enabled
Prohibit rollback	Not configured
Remove browse dialog box for new source	Not configured
Prohibit patching	Not configured
Disable IE security prompt for Windows Installer scripts	Not configured
Enable user control over installs	Enabled
Enable user to browse for source while elevated	Not configured
Enable user to use media source while elevated	Not configured

Refresh the domain server's security policy in any one of the following ways:

Reboot the domain server.

At the command line, enter gpupdate.exe.

```
Command Prompt
Microsoft Windows [Version 5.2.3790]
(C) Copyright 1985-2003 Microsoft Corp.

C:\Documents and Settings\Administrator>gpupdate.exe
Refreshing Policy...

User Policy Refresh has completed.
Computer Policy Refresh has completed.

To check for errors in policy processing, review the event log.


C:\Documents and Settings\Administrator>
```

You are ready to begin the push installation process from the Server.

At each Client PC

Each Client PC needs to be rebooted in order to start the Sharpdesk/NST installation. Nothing happens until a reboot occurs. It is not sufficient to simply log off and then log back in again. Note that the Client PC may need to be rebooted more than once; the Windows startup process may delay the automatic installation of Sharpdesk/NST until the second reboot.

Early in the reboot process, a message indicating that "managed" software (Sharpdesk/NST) is being downloaded from the Server should be displayed on Windows XP Clients. On Vista and Windows 7 Clients, a spinning icon should be displayed while the software package is being downloaded from the Server. The download could take as long as two hours, depending on network speed and load. This is a positive indication that the push install is taking place.

Note: The software package download occurs *before* the user is asked to log on. If the login screen appears quickly after the reboot, without either the message or spinning icon described above appearing, the push installation process has not engaged. If this happens, reboot and try again. Once the files have been downloaded from the Server to the Client PC, the silent Sharpdesk/NST installation process will begin and finish before user login.

After user login, NST wizard will start. See NST User's Guide for a brief overview of the NST Wizard.

There is one more step to perform before Sharpdesk is fully operational, but it does not occur until Sharpdesk is started from Windows.   The first time Sharpdesk is started, the Search Index Wizard will run to initialize the Search subsystem. See Sharpdesk User's Guide for a brief overview of the Search Index Wizard.

If the software is not installed even after two reboots, inspect the "Event Viewer" for any errors on each Client PC. Correct those errors and reboot again.
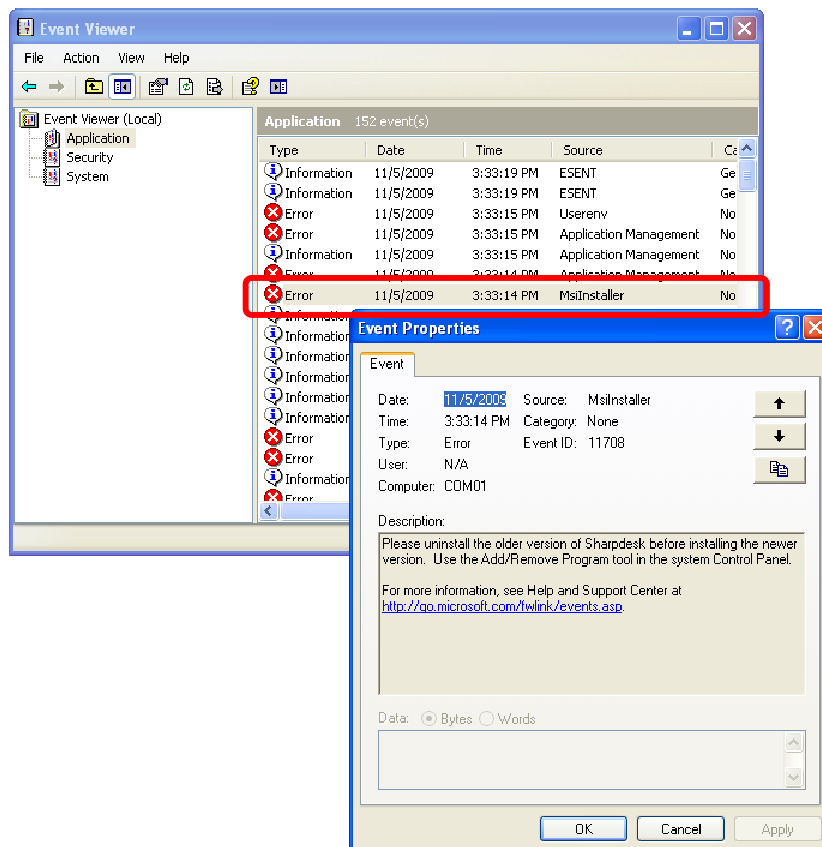
Error logs with Event Viewer (only in the case of failure)

You can see the error logs on Client PC with "Event Viewer". Though "Control Panel" -> "Administrative Tools" -> "Event Viewer", the following window is displayed.
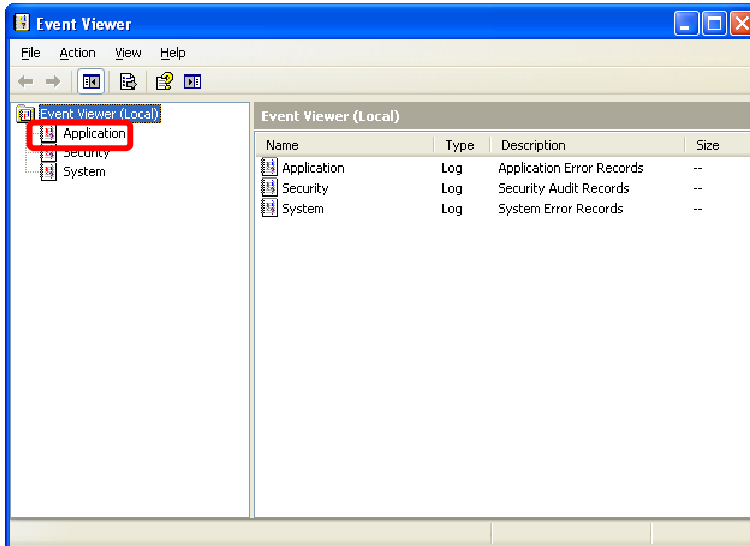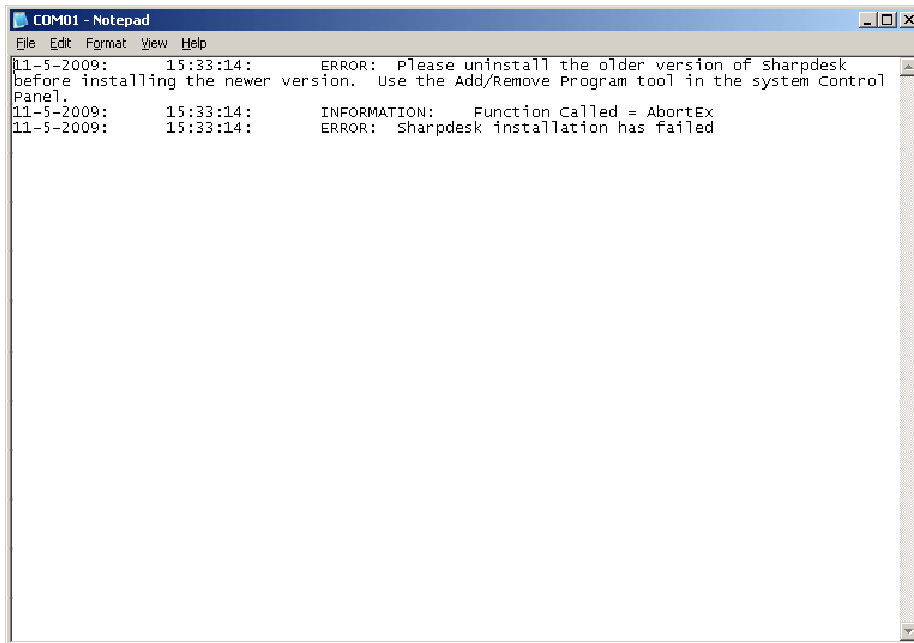

And, selecting "Application" shows the error logs in detail.

(e.g. Older version exists on Client PC)

In this case error logs are also saved on Server. (e.g. "\\<Servername>\SHARE\Sharpdesk\Logs")

```
COM01 - Notepad                                                    _|□|×|
File  Edit  Format  View  Help
11-5-2009:        15:33:14:        ERROR:  Please uninstall the older version of sharpdesk
before installing the newer version.  Use the Add/Remove Program tool in the system Control
Panel.
11-5-2009:        15:33:14:        INFORMATION:    Function Called = AbortEx
11-5-2009:        15:33:14:        ERROR:  Sharpdesk installation has failed
```

Note: Please refer to "Appendix".

Uninstalling Sharpdesk/NST through PUSH

If Sharpdesk is installed through PUSH then it is advisable to un-install through PUSH. Don't manually un-install the Sharpdesk/NST installed through PUSH Install.

Follow the below steps to Uninstalling Sharpdesk/NST through PUSH , use the Active Directory Users and Computers Microsoft Management Console (MMC) snap-in:

Right-click the domain, Organizational Unit (OU), or object with the policy that contains the deployed software, and then click Properties.

Click the "Group Policy" tab.

Click the policy that contains the program that was patched.

Click "Edit" button to open Group Policy Editor for the deployed package.

Browse through the "Computer Configuration" -> "Software Settings" section to the location in which the software package is deployed.

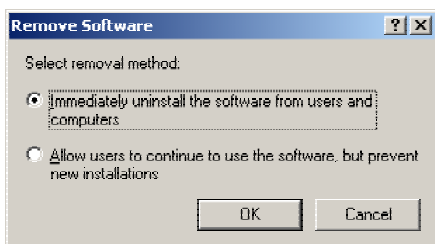Right-click the deployed package in the right pane.

Click "All Tasks" and then "Remove".
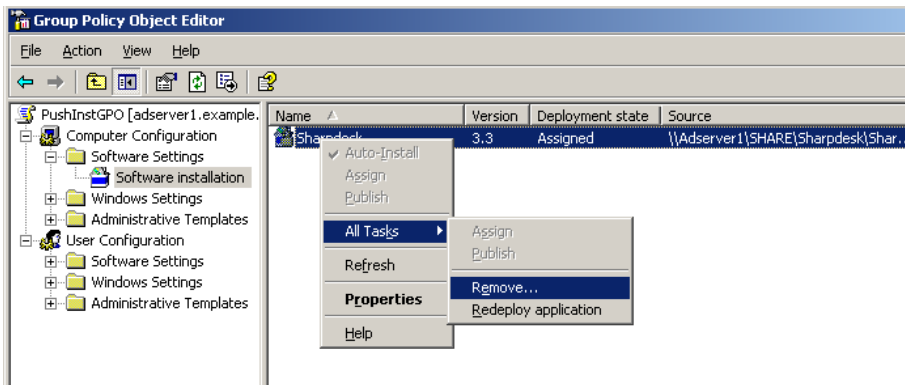
Prompts a dialog with two options:

Immediately uninstall the software from Users and Computers.

Allow users to continue to use the software, but prevent new installations.

Select the first option to uninstall Sharpdesk from OU.

Note: Don't manually un-install the Sharpdesk/NST installed through PUSH Install.

If Sharpdesk is installed through PUSH and un-installed manually from control panel then it may produce undesired results in installing future version of Sharpdesk. There may be chances of displaying warning message like 'The setup will perform an upgrade' or 'No feature is selected'. Please ignore this message by clicking OK and continue the installation. If Sharpdesk is installed through PUSH then it is advisable to un-install through PUSH.

Appendix

Information sent to Log file and Event Viewer

This discusses about Push Install Failure cases where installer can log the information into a log file.

Older version exists:

Where older versions such as Sharpdesk 3.2 or older exist on the PC, Installer will write the error message to the Read-write shared location Log folder and event viewer.

Invalid Serial Number:

If the given serial number is invalid, Installer will write the error message to the Read-write shared location Log folder and event viewer.

No License available:

If the system administrator is trying to PUSH to more PCs than allowed in the serial number, Installer will write the error message to the Read-write shared location Log folder and event viewer.

Invalid Destination path:

If the given Installer destination path is invalid, Installer will write the error message to the Read-write shared location Log folder and event viewer.

Information sent to only Event Viewer

This discusses about Push Install Failure cases where installer cannot log the information: ("Event Viewer" will have this information)

Share Folder does not have Read-write permissions:

If media (software package) for Push install is not available in a shared location having Read-Write permissions, Installer will write the error message to event viewer because installer cannot write the information to the Log folder which is also present in the shared location.

PC removed from the network:

While installation is going on the Network PC, if anybody removes it from the Network, Sharpdesk Installer cannot write the information to the Read-write shared location Log folder.

Unexpected power failure:

While installation is going on the Network PC, if power failure occurs, Sharpdesk Installer cannot write the information to the Read-write shared location Log folder.

Glossary

Organization unit: Group of computer which falls under a common category of Users. Sharpdesk will be PUSHed only to this set of Computers. Microsoft Reference.

Group Policy Management Console.

FQDN: Fully Qualified Domain Name.

Kerberos Principals.