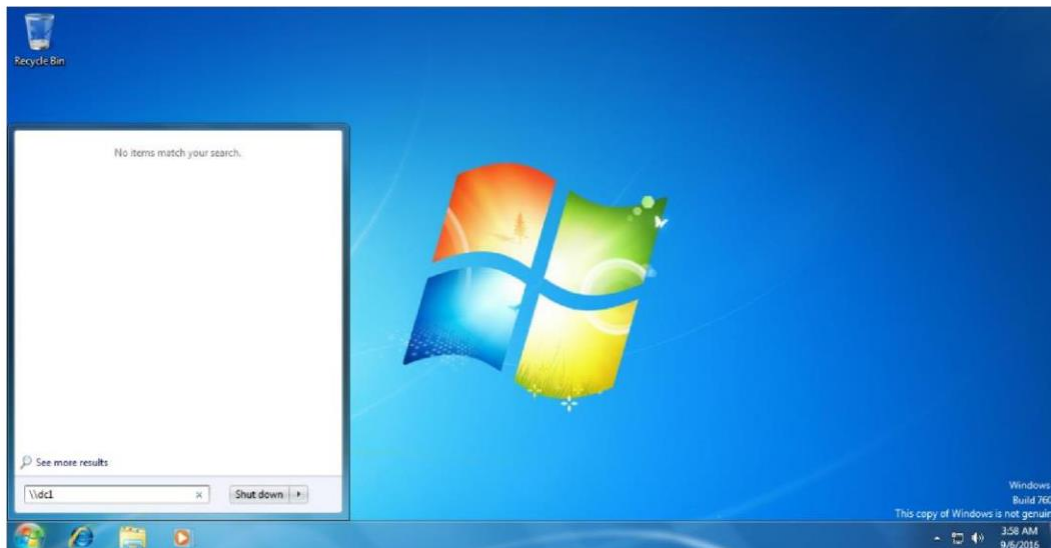
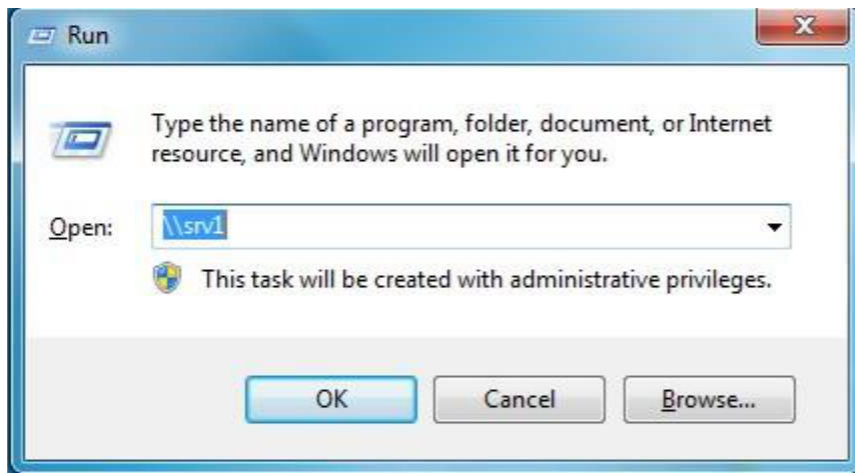


# Lab - Installing a Network Printer on a Windows Client

## Overview

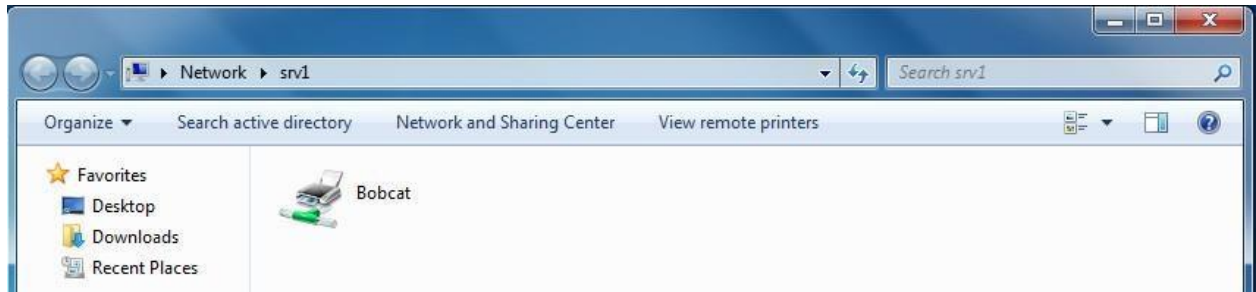
In this lab, we see to how easily install a network printer onto a Windows client. If the printer is published to Active Directory or shared on the network, we can reach the print server from anywhere on the network just by going to a run line or the search window and typing in \\<server name>. When the server shares pop up, we will be presented with all the shares on the server.

Start your Windows 7 VM. From your Windows 7 desktop, hit the Windows + R keys on your keyboard. If you have a Mac or Apple as a host, use the search window.



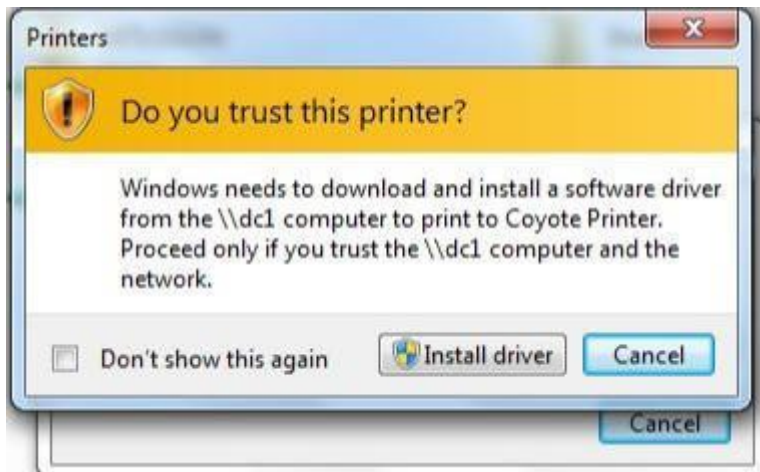
Either way, when you hit enter, you will be presented with all the available shares on your server. My print server is SRV1; yours may differ. I see the Bobcat printer is available. Let's say that I have just installed a brand new, pristine HP workstation for the accounting department. I'm on the second floor, and my server is in the server room in the basement.

By doing a “whack, whack” (\\) from the run line and adding in the name of the computer or server, I can gain access to the shares including printers from my current location. I right click on the printer, select Connect from the context menu, and we are done!



This works because I have administrative access to the shares. Not everyone will see the shares unless they too have administrative same access.

The new PC pulls down the Windows 7 for the Bobcat printer, and we are prompted to accept a certificate for the print driver. We select “Install driver,” and the installing of the shared Bobcat printer completes.



From my Window 7 client, if I go to Start, Devices, and Printers I see my newly installed shared printer is available, and the green check mark means the printer is now by default printer for all print jobs.



## Powershell

`Get-Command -Module PrintManagement` - Shows all the commands available for the PrintManagement module.

```

Administrator: Windows PowerShell
Windows PowerShell
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PS C:\Users\Administrator> Get-Command -Module PrintManagement

CommandType      Name                                           ModuleName
-----
Function          Add-Printer                                  PrintManagement
Function          Add-PrinterDriver                           PrintManagement
Function          Add-PrinterPort                             PrintManagement
Function          Get-PrinterConfiguration                    PrintManagement
Function          Get-Printer                                 PrintManagement
Function          Get-PrinterDriver                          PrintManagement
Function          Get-PrinterPort                            PrintManagement
Function          Get-PrinterProperty                        PrintManagement
Function          Get-PrintJob                               PrintManagement
Function          Read-PrinterNfcTag                         PrintManagement
Function          Remove-Printer                             PrintManagement
Function          Remove-PrinterDriver                       PrintManagement
Function          Remove-PrinterPort                         PrintManagement
Function          Remove-PrintJob                            PrintManagement
Function          Rename-Printer                             PrintManagement
Function          Restart-PrintJob                           PrintManagement
Function          Resume-PrintJob                            PrintManagement
Function          Set-PrinterConfiguration                   PrintManagement
Function          Set-Printer                                PrintManagement
Function          Set-PrinterProperty                        PrintManagement
Function          Suspend-PrintJob                           PrintManagement
Function          Write-PrinterNfcTag                        PrintManagement

PS C:\Users\Administrator>

```

`Get-Help <cmdlet_name> -Detailed` - Detailed information about the syntax for any cmdlet in Powershell

(Try thinking about other PowerShell modules where these commands could be used, not just the PrintManagement module. The commands would work with all Powershell modules.)

```
Administrator: Windows PowerShell

PS C:\Users\Administrator> Get-Help Add-Printer -Detail

Do you want to run Update-Help?
The Update-Help cmdlet downloads the most current Help files for Windows PowerShell modules, and installs them on your
computer. For more information about the Update-Help cmdlet, see http://go.microsoft.com/fwlink/?LinkId=210614.
[Y] Yes [N] No [S] Suspend [?] Help (default is "Y"): n You need Internet access to update the help files.

NAME
Add-Printer

SYNTAX
Add-Printer [-ConnectionName <string>] [-CimSession <CimSession[]>] [-ThrottleLimit <int>] [-AsJob] [-WhatIf]
[-Confirm] [<CommonParameters>]

Add-Printer [-Name <string>] [-Comment <string>] [-Datatype <string>] [-UntilTime <uint32>] [-KeepPrintedJobs]
[-Location <string>] [-SeparatorPageFile <string>] [-ComputerName <string>] [-Shared] [-ShareName <string>]
[-StartTime <uint32>] [-PermissionSDDL <string>] [-PrintProcessor <string>] [-Priority <uint32>] [-Published]
[-RenderingMode <RenderingModeEnum> {SSR | CSR | BranchOffice}] [-DisableBranchOfficeLogging]
[-BranchOfficeOfflineLogSizeMB <uint32>] [-DeviceURL <string>] [-DeviceUUID <string>] [-CimSession <CimSession[]>]
[-ThrottleLimit <int>] [-AsJob] [-WhatIf] [-Confirm] [<CommonParameters>]

Add-Printer [-Name <string>] [-DriverName <string>] [-PortName <string>] [-Comment <string>] [-Datatype <string>]
[-UntilTime <uint32>] [-KeepPrintedJobs] [-Location <string>] [-SeparatorPageFile <string>] [-ComputerName
<string>] [-Shared] [-ShareName <string>] [-StartTime <uint32>] [-PermissionSDDL <string>] [-PrintProcessor
<string>] [-Priority <uint32>] [-Published] [-RenderingMode <RenderingModeEnum> {SSR | CSR | BranchOffice}]
[-DisableBranchOfficeLogging] [-BranchOfficeOfflineLogSizeMB <uint32>] [-CimSession <CimSession[]>]
[-ThrottleLimit <int>] [-AsJob] [-WhatIf] [-Confirm] [<CommonParameters>]

PARAMETERS
-AsJob

-BranchOfficeOfflineLogSizeMB <uint32>

-CimSession <CimSession[]>

-Comment <string>

-ComputerName <string>

-Confirm

-ConnectionName <string>
```

Get-Help <cmdlet\_name> -Examples - Examples of the commands

```
Administrator: Windows PowerShell

PS C:\Users\Administrator> Get-Help Add-Printer -Examples

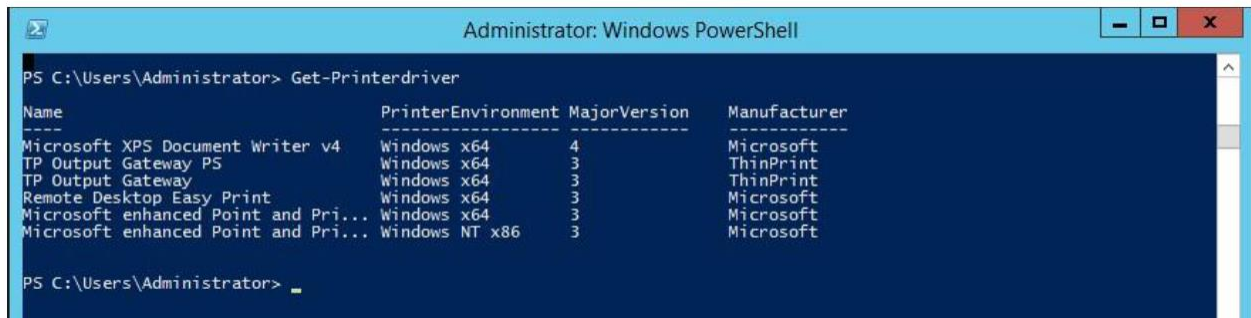
NAME
Add-Printer

ALIASES
None

REMARKS
You can see from the results, if we had Internet access, we could update the help files
using the Update-Help command.
Get-Help cannot find the Help files for this cmdlet on this computer. It is displaying only partial help.
-- To download and install Help files for the module that includes this cmdlet, use Update-Help.

PS C:\Users\Administrator>
```

Get-PrinterDriver - Display the list of printer drivers in the system.



```
Administrator: Windows PowerShell
PS C:\Users\Administrator> Get-Printerdriver

Name                                     PrinterEnvironment MajorVersion  Manufacturer
-----
Microsoft XPS Document Writer v4       Windows x64      4             Microsoft
TP Output Gateway PS                   Windows x64      3             ThinPrint
TP Output Gateway                       Windows x64      3             ThinPrint
Remote Desktop Easy Print               Windows x64      3             Microsoft
Microsoft enhanced Point and Pri...    Windows x64      3             Microsoft
Microsoft enhanced Point and Pri...    Windows NT x86   3             Microsoft

PS C:\Users\Administrator>
```

## Summary

The idea of having shared network printers is to reduce the cost of everyone needing their own printer. This seldom is the case. Management usually has a need for a personal computer as does the receptionist and others. Regardless if the printer is a document center or an HP LaserJet 4200, if the printer has network capability, the printer can be directly shared out on the network.

End of the lab!