SOP Enabling Branch Office Direct Printing

Branch Office Direct Printing (BODP) is a feature introduced in Windows Server 2012 that is designed to reduce print traffic across your WAN. With BODP, a user in a branch office sends the print job directly to a branch office printer. There is no need to send the print job from the client to a centralized print server and then back to the branch office printer. Print jobs can be quite large, so this can improve printing and reduce print job-related WAN traffic.

Getting ready

This SOP/Test recipe needs a second shared printer, SGBRCP1, set up as follows:

$PtrName = 'Sales\_Branch\_Color'

$PtrIP = '[172.16.1.61](http://172.16.1.61)'

$DrvName = 'NEC Color MultiWriter Class Driver'   
 Add-PrinterPort -Name $ptrname `   
 -PrinterHostAddress $PtrIP   
 Add-PrinterDriver -Name $DrvName `   
 -PrinterEnvironment 'Windows x64'   
 Add-Printer -Name 'SGBRCP1' `   
 -DriverName $DrvName `   
 -Portname 'Sales\_Branch\_Color'   
 Set-Printer -Name 'SGBRCP1' -Shared $true `   
 -Published $true

This second printer is a branch office printer for which you enable BODP printing.

How to do it...

1.Set the SGBRCP1 printer for Branch Office Direct Printing:

$Printer = SGBRCP1

$PServer = 'PSRV'

Set-Printer -Name $Printer -ComputerName $PServer `   
 -RenderingMode BranchOffice

2.Get the printing mode:

$Key = 'HKLM:\SYSTEM\CurrentControlSet\Control\ +   
 Print\Printers\SGBRCP1\Printer\DriverData'   
 $BROPrint = (Get-ItemProperty   
 $Key).EnableBranchOfficePrinting

3.Now display the value of the RenderingMode:

Get-Printer $Printer -Full |   
 Format-Table Name, RenderingMode

4.Now reset to default:

Set-Printer -Name $printer 1 `   
 -ComputerName $PServer `   
 -RenderingMode SSR

5.Redisplay the RenderingMode property for the remote printer:

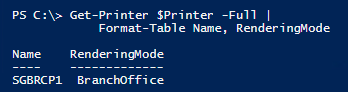
Get-Printer $Printer -Full |   
 Format-Table -Property Name, RenderingMode

How it works:

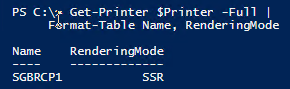
This recipe is relatively straightforward, with a bit of a twist. In *step 1*, you set BODP for   
printer SGBRCP1 using the Set-Printer command.

In *step 2*, you look into the registry for details about the shared printer. At the time of   
writing, using the cmdlet Get-Printer does not return the RenderingMode by default.   
You can either specify the -FULL switch to Get-Printer, or you can get the details from   
the registry. Using the -FULL switch takes additional time, so it's not done by default-   
accessing this setting from WMI should be faster. Also, the RenderingMode property is not returned, by default.

In *step 3*, you use the Get-Printer command, specifying the -Full parameter, to return   
the following:



Finally, in *steps 4* and *5*, you reset the value of Branch Office Direct Printing to default, then re-redisplay the value:



There's more:

BODP is straightforward to set up—the printers need to be networked (TCP/IP based) and   
support client-side rendering (CSR). Traditionally, rendering is server-side   
(RenderingMode set to SSR). See   
<https://technet.microsoft.com/en-us/library/jj134152(v=ws.11).aspx> for deeper   
technical details of Branch Office Direct Printing, including some important limitations you should be aware of before deploying branch office printing.

You use the Set-Printer cmdlet to set BODP. However, the Get-Printer cmdlet does   
not return the Branch Office Printing mode by default. The -Full switch on the Get-   
Printer command returns both the Branch Office Printing mode and the object's security   
descriptor in SDDL format.