Performance Tuning Accops Virtual Desktops

This document provides details on configuration settings that enables best end user experience of Virtual Desktops when using different access methods using Accops products.

Steps to Optimize Performance

1. Configure protocol
2. Optimize the Virtual Machine Performance
3. Optimize the display settings of the Virtual Machine
4. Configure RDP options via Group policies for best performance
5. Configure HyWorks Connection profile for best performance
6. Configure HyLite options for best performance

Configure Right Protocol

1. Set latest RDP protocol on the guest VDI OS / RDSH server OS. Latest protocol released is RDP 8.1
2. If guest OS is Windows 7 or Windows Server 2008 R2
   a. Install following Microsoft update

      https://support.microsoft.com/en-us/help/2592687/remote-desktop-protocol-rdp-8-0-update-for-windows-7-and-windows-serve

   b. Configure group policy to enable RDP 8
      i. Open group policy editor
      ii. Go to Computer Configuration\Administrative Templates\Windows Components\Remote Desktop Services\ Remote Desktop Session Host\Remote Session Environment.
      iii. Enable "remote Desktop Protocol 8.0 group policy
      iv. Go to Computer Configuration\Administrative Templates\Windows Components\ Remote Desktop Services\Remote Desktop Session Host\Connections
      v. Enable "Use both TCP and UDP"
      vi. To enable UDP when using Clients, please do following
         1. Set client connection encryption level should be "Not configured"
         2. In Hyworks connection profile "cred ssp" should be enabled for UDP support over RDP.

3. If the User PC is older than Windows 10, Ask users also to download the the latest RDP client
   https://support.microsoft.com/en-us/help/2923545/update-for-rdp-8-1-is-available-for-windows-7-sp1

Optimize The Virtual Machine Performance

When the Windows OS is running as a guest OS inside a VM, it has all the services running as on a desktop PC and so the performance of the Windows OS is not optimized for running in virtual environments.
We suggest following steps to improve the virtual machine performance
1. Disable Windows update or schedule them during off hours.

2. Schedule anti-virus scanning during off hours
3. Stop unwanted services like de-fragmantation
4. Run VMWare Virtual Machine optimization tool to stop other unwanted services:
   https://labs.vmware.com/flings/vmware-os-optimization-tool#summary

Optimize display settings of Windows OS

1. Go to control panel -> System
2. Go to tab "Advanced" and Click on "Settings" under performance section.
3. On "Performance Options" dialog, under "Visual effects" tab, Choose option "Adjust for best performance"
4. Check the option "Smooth edges of screen fonts"
5. Press Ok to save settings
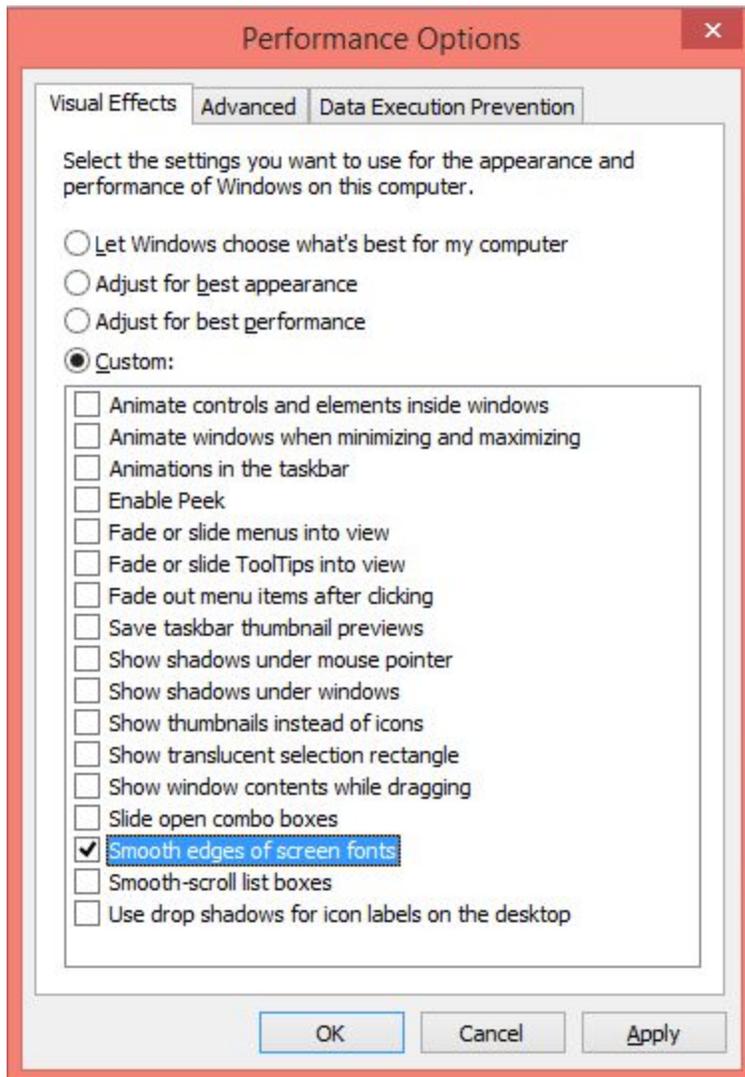
Configure RDP options via Group policies for best performance

Set following options in group policies and apply it to all virtual desktops:

On target Microsoft Windows machine, set these group policies for optimum performance:

1. Select network detection on the server:
   a. Disable in case of HyLite (not mandatory though)
   b. Enable for users who use HyWorks Client to access VDI/Virtual Apps
2. Configure remoteFX Adaptive graphics
3. Set client connection encryption level: Set to LOW
   a. Not secure when not using HySecure but using TSE/HyWorks client access
   b. Note: If you set this policy, RDP can not use RDP when using HyWorks client
4. Use the hardware default graphics adaptor
5. Device and Resource Redirection: Allow audio and video playback redirection (useful when using client and support for HyLite will come in future)
6. If the server has a hardware encoder, set to us AVC/H.264 with AVC/444
7. If users are going to use virtual desktop over thin client only, please disable clipboard redirection to save on unnecessary clipboard sharing.

Optimize Windows Virtual Desktop performance when using HyLite Access

On HySecure, set these settings as HyLite configuration for optimum performance:

1. Settings under "Advanced Settings" section
   a. Enable font smoothing: Keep checked
   b. Enable persistent bitmap caching: keep checked
   c. Enable RemoteFX: keep checked (Only HyLite Pro)
   d. Enable show windows contents while dragging: keep unchecked
   e. Choose your connection speed to optimize performance: set to "Modem"
   f. Keep all other Advanced Settings options to Off

HyWorks Connection Profile Settings

HyWorks Connection Setting

On HyWorks, create connection profile setting with following option:

1. Experience -> Connection Type -> Choose Modem
2. Experience -> Connection Type -> enable option "Font Smoothing"
3. Experience -> Enable Persistent bitmap caching
4. Advanced Settings -> Enable Graphics Acceleration (for Accops Linux Thinclients only)
5. Advanced Settings -> Enable Compression

For RDP Type Application on HySecure

RDP Application Setting

On HySecure, when creating a RDP type application, set these options for optimum performance