

The science behind the report:

# Keep remote desktop power users productive with Dell EMC PowerEdge R840 servers powered by 2<sup>nd</sup> Gen Intel Xeon Scalable processors

This document describes what we tested, how we tested, and what we found. To learn how these facts translate into real-world benefits, read the report [Keep remote desktop power users productive with Dell EMC PowerEdge R840 servers powered by 2<sup>nd</sup> Gen Intel Xeon Scalable processors](#).

We concluded our hands-on testing on January 9, 2022. During testing, we determined the appropriate hardware and software configurations and applied updates as they became available. The results in this report reflect configurations that we finalized on January 6, 2022 or earlier. Unavoidably, these configurations may not represent the latest versions available when this report appears.

## Our results

To learn more about how we have calculated the wins in this report, go to <http://facts.pt/calculating-and-highlighting-wins>. Unless we state otherwise, we have followed the rules and principles we outline in that document.

Table 1: Results of our VMware® View Planner testing on the Dell EMC™ PowerEdge™ R840.

Total virtual desktop users	230
CPU-intensive workload latency (95 <sup>th</sup> percentile, seconds)	0.8281
Storage-intensive workload latency (95 <sup>th</sup> percentile, seconds)	5.9825

Table 2: ESX™ resource usage during VMware View Planner testing

Measurement	Average	Min	Max
CPU usage (percent)	80.40	6.65	100.00
CPU core utilization (percent)	77.94	5.58	100.00
CPU utilization(percent)	70.99	3.15	100.00
Memory usage (percent)	59.30	57.05	59.57
Active memory (GB)	576.38	271.08	1,378.11
Consumed memory (GB)	1,272.7	1,224.30	1,278.49
Memory balloon (GB)	0.00	0.00	0.00
Network receive rate (KBPS)	16,268.06	40.00	37,489.00
Network transmit rate (KBPS)	492.73	29.00	1,008.00

ESXi CPU activity during VMware View Planner testing

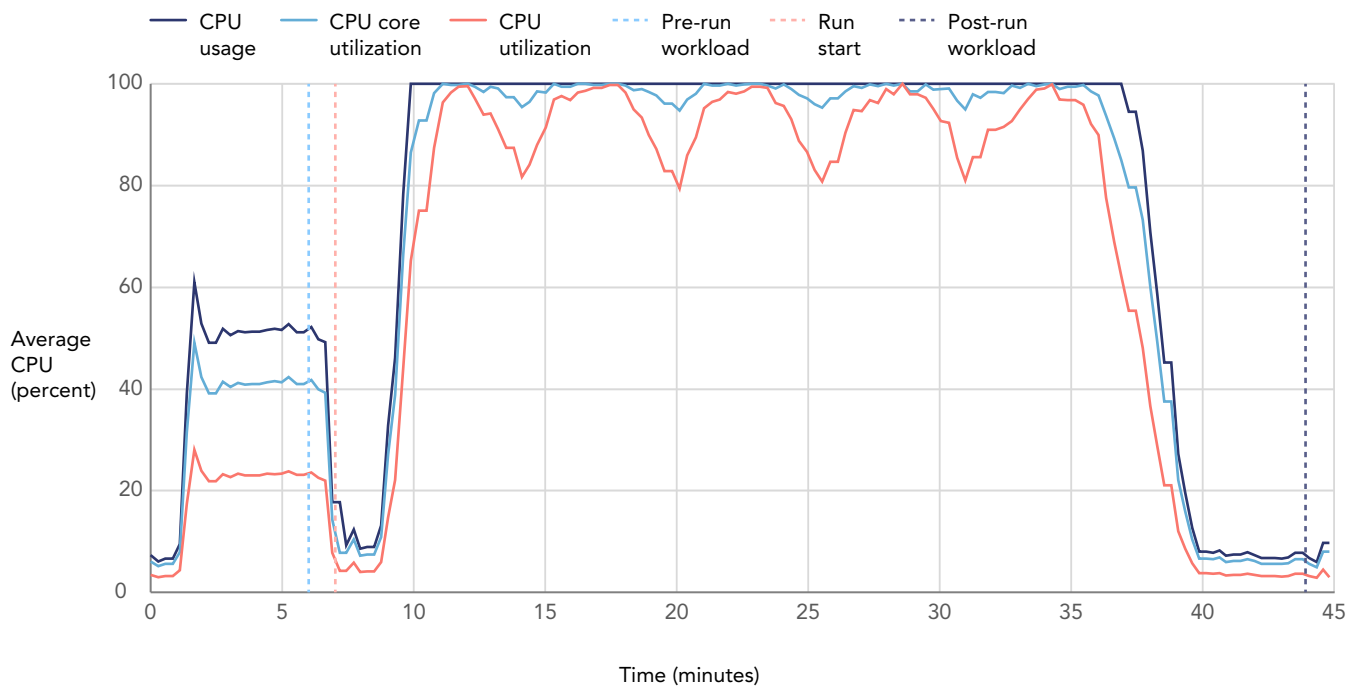


Figure 1: ESXi CPU activity during VMware View Planner testing.

## System configuration information

Table 3: Detailed information on the Dell EMC PowerEdge R740 we used for the test harness and Dell EMC PowerEdge R840 we actually tested.

System configuration information	Dell EMC PowerEdge R740	Dell EMC PowerEdge R840
BIOS name and version	Dell 2.12.2	Dell 2.12.2
Operating system name and version/build number	VMware ESXi, 7.0.2, 18538813	VMware ESXi, 7.0.2, 18538813
Date of last OS updates/patches applied	01/06/2022	01/06/2022
Power management policy (OS)	Performance	Performance
<b>Processor</b>		
Vendor	Intel®	Intel
Name	Xeon® Platinum	Xeon Platinum
Model number	8168	8260L
Number of cores	24	24
Core frequency (GHz)	2.70	2.30
Stepping	Model 85 Stepping 4	Model 85 Stepping 5
<b>Memory module(s)</b>		
Total memory in system (GB)	256	2,048
Number of memory modules	8	32
Vendor and model number	Samsung® M393A4K40CB2-CTD	Samsung M393A8G40MB2-CVF
Type	PC4-21300	PC4-23400
Size (GB)	32	64
Speed (MHz)	2,666	2,933
Speed running in the server (MHz)	2,666	2,666
<b>Storage controller</b>		
Vendor and model number	Dell PERC H740P	Dell PERC H740P
Firmware	51.16.0-4076	51.16.0-4076
Driver	7.716.03.00	7.717.04.00
<b>OS Storage</b>		
Number of drives	4	2
Drive controller	Dell PERC H740P	Dell PERC H740P
Vendor and model number	Intel SSDSC2BA40	Toshiba® PX05SMB040Y
Drive size (GB)	372	372
Drive information (speed, interface, type)	6 Gbps, SATA, SSD	12 Gbps, SAS, SSD

System configuration information	Dell EMC PowerEdge R740	Dell EMC PowerEdge R840
Local storage		
Vendor and model number	N/A	Dell Ent NVMe v2 AGN MU U.2 3.2TB
Size	N/A	3.2TB
Count	N/A	8
Firmware	N/A	2.2.0
Connectivity/expansion		
Ethernet #1	Broadcom Gigabit Ethernet BCM5720	Broadcom Gigabit Ethernet BCM5720
Ethernet #2	Emulex 10G NIC	Emulex 10G NIC
Power supplies		
Vendor and model number	Dell 0Y26KXA02	Dell 095HR5A04
Number of power supplies	2	2
Wattage of each (W)	1,100	1,600

## How we tested

For the VDI test environment, we set up an infrastructure environment on a Dell EMC PowerEdge R740 server, installed VMware ESXi 7.0.2 on it, and deployed VMware vCenter, AD, Horizon 8 Connection Server, and View Planner harness VMs. We then set up the server under test: A Dell EMC PowerEdge R840 server equipped with four Intel Xeon Platinum 8260L processors, 2 TB of memory, and eight independent NVMe storage devices for VDI desktop storage.

To determine the maximum number of VMs that the VDI environment could support, we used VMware View Planner 4.6 to generate workload simulations using common desktop productivity applications, and set the think time to the fastest option (1 second for CPU-centric tasks and 6 seconds for storage-centric tasks) to simulate a power user's active work style. We ran the benchmark three times and collected data each time. We took the median benchmark scores to generate our results.

## Configuring the Active Directory VM

We installed and configured a VM to host Active Directory services, DNS, DHCP, NTP, and to be a certificate authority. In addition, we created a golden VM for virtual desktops and applied registry edits to ensure testing executed correctly. All these functions are necessary to run our testing.

### Installing Active Directory Domain Services

1. Log into the vSphere client as administrator@vsphere.local.
2. On the infrastructure server, deploy a Windows Server 2019 VM named DC1, and log in as an administrator.
3. Launch Server Manager.
4. Click Manage→Add Roles and Features.
5. At the Before you begin screen, click Next.
6. At the Select installation type screen, leave Role-based or Feature-based installation as-is, and click Next.
7. At the Server selection screen, select the server from the pool, and click Next.
8. At the Select server roles screen, select Active Directory Domain Services.
9. When prompted, click Add Features, and click Next.
10. At the Select Features screen, click Next.
11. At the Active Directory Domain Services screen, click Next.
12. At the Confirm installation selections screen, check Restart the destination server automatically if required, and click Install.

### Configuring Active Directory and DNS services on DC1

1. After the installation completes, a screen should pop up with configuration options.
2. If a screen does not appear, in the upper-right section of Server Manager, click the Tasks flag.
3. Click Promote this server to a Domain Controller.
4. At the Deployment Configuration screen, select Add a new forest.
5. In the Root domain name field, type test.local, and click Next.
6. At the Domain Controller Options screen, leave the default values, and enter a password twice.
7. To accept default settings for DNS, NetBIOS, and directory paths, click Next four times.
8. At the Review Options screen, click Next.
9. At the Prerequisites Check dialog, allow the check to complete.
10. If there are no relevant errors, check Restart the destination server automatically if required, and click Install.
11. When the server restarts, log on using test\Administrator and the password you chose in step 6.

### Configuring the Windows time service on DC1

1. To ensure reliable time, we pointed our Active Directory server to an upstream NTP server.
2. Open a command prompt.
3. Type the following:

```
W32tm /config /syncfromflags:manual /manualpeerlist:"<ip address of a NTP server>"
W32tm /config /reliable:yes
W32tm /config /update
W32tm /resync
Net stop w32time
Net start w32time
```

## Setting up DHCP services on DC1

1. Open Server Manager.
2. Select Manage, and click Add Roles and Features.
3. Click Next twice.
4. At the Select server roles screen, select DHCP Server.
5. When prompted, click Add Features, and click Next.
6. At the Select Features screen, click Next.
7. Click Next.
8. Review your installation selections, and click Install.
9. Once the installation completes, click Complete DHCP configuration.
10. On the Description page, click Next.
11. On the Authorization page, use the Domain Controller credentials set up previously (TEST\Administrator), and click Commit.
12. On the Summary page, click Close.
13. Click Close on the Add Roles and Features Wizard.
14. In Server Manager, click Tools→DHCP.
15. In the left pane, double-click your server, and click IPv4.
16. In the right pane, click More Actions (under IPv4), and select New Scope.
17. Click Next.
18. Enter a Name and Description for the scope, and click Next.
19. Enter the following values for the IP Address Range:
  - Start IP address: 172.16.10.1
  - End IP address: 172.16.100.254
  - Length: 16
  - Subnet mask: 255.255.0.0
  - Click Next.
20. At the Add Exclusions and Delay page, leave defaults, and click Next.
21. Set the Lease Duration to 30 days, and click Next.
22. At the Configure DHCP Options page, leave Yes selected, and click Next.
23. At the Router (Default Gateway) page, enter the gateway IP address, and click Next.
24. For the parent domain, at the Specify IPv4 DNS Settings screen, type test.local.
25. Type the preferred DNS server, IPv4 address, and click Next.
26. At the WINS Server page, leave the fields empty, and click Next.
27. At the Activate Scope page, leave Yes checked, and click Next.
28. Click Finish.

## Installing and configuring SSL Certificate in Microsoft Active Directory on DC1

1. Log onto DC1 as administrator@test.local.
2. Open server manager.
3. Select Manage, and click Add Roles and Features.
4. When the Add Roles and Features Wizard begins, click Next.
5. Select Role-based or Feature-based installation, and click Next.
6. Select DC1.test.local, and click Next.
7. At the server roles menu, expand Active Directory Certificate Services.
8. Select Certification Authority, Certificate Enrollment Web Service, and Certification Authority Web Enrollment.
9. When prompted, click Add Features, and click Next.
10. Leave Select features as is, and click Next.
11. At the Active Directory Certificate Services introduction page, click Next.
12. Select Certificate Authority and Certificate Authority Web Enrollment .
13. When prompted, click Add Features, and click Next.
14. Click Next two times, click Install, and click Close.
15. In server manager, click the yellow triangle titled Post-deployment configuration.
16. On the destination server, click Configure Active Directory Certificate Services.
17. Leave credentials as test\administrator, and click Next.
18. Select Certification Authority, Certificate Enrollment Web Service, Certification Authority Web Enrollment, and click Next.

19. Select Enterprise CA, and click Next.
20. Select Root CA, and click Next.
21. Select Create a new private key, and click Next.
22. Select SHA256 with a 2048 Key length, and click Next.
23. Leave the names fields and defaults, and click Next.
24. Change expiration to 10 years, and click Next.
25. Leave Certificate database locations as default, and click Next.
26. Click Configure.
27. When finished configuring, click Close.
28. Open a command prompt, and type `ldp`
29. Click Connection, and connect.
30. For server, type `dc1.test.local`
31. Change the port to 636.
32. Check SSL, and click OK.

## Configuring secure LDAP on DC1.test.local on DC1

1. Open administrative tools, Certification Authority
2. Click test-DC1-CA→Certificate Templates
3. Right-click Manage.
4. Right-click Kerberos Authentication, and select Duplicate Template.
5. Click General.
6. Rename the template and its display name.
7. Click Request Handling.
8. Check the box for Allow private key to be exported, and click OK.
9. Right-click the new template, and rename it `LDAPoverSSL`
10. Return to the Certificates console.
11. In the right pane, right-click New Certificate Template to Issue.
12. Select `LDAPoverSSL`, and click OK.

## Joining VMware vCenter to Active Directory

1. In the vSphere client, click the drop-down menu, and select Administration.
2. Under Single Sign On, select Configuration.
3. In the Identity Provider tab, select Active Directory Domain.
4. Select the vCenter, and click Join AD.
5. Enter the AD administrator credentials, and click OK.

## Configuring the VMware Horizon 8 Connection Server

### Installing a VMware Horizon 8 Connection Server on a VMware View VM

1. On the infrastructure server, deploy a Windows Server 2019 VM with eight vCPUs and 16 GB of memory named View, and log in as an administrator.
2. Join the VM to the test.local domain, reboot, and log back in as a domain administrator.
3. Browse to VMware View installation media, and run the installation executable file.
4. At the Welcome screen, click Next.
5. Agree to the End User License Agreement, and click Next.
6. Keep the default installation directory, and click Next.
7. Select View Standard Server, and click Next.
8. At the Data Recovery screen, enter a backup password, and click Next.
9. Allow View Server to configure the Windows firewall automatically, and click Next.
10. Authorize the local administrator to administer View, and click Next.
11. Choose whether or not to participate in the customer experience improvement program, and click Next.
12. To finish installing View Connection Server, complete the installation wizard.
13. Click Finish.
14. Reboot server.

## Configuring the VMWare Horizon 8 Connection Server on the View VM

1. Open a Web browser, and navigate to `http://<view connection server FQDN>/admin`.
2. Log in as administrator.
3. Under Settings→Product Licensing and Usage, click Edit License.
4. Enter a valid license serial number, and click OK.
5. In the vCenter Servers tab, under Settings→Servers, click Add.
6. Enter vCenter server credentials, and edit or confirm the following settings:
  - Max concurrent vCenter provisioning operations: 20
  - Max concurrent power operations: 50
  - Max concurrent Instant Clone Engine provisioning operations: 20
7. Click Next.
8. Enter full domain name and user credentials.
9. Do not use Reclaim VM disk space or Enable View Storage Accelerator.
10. At the ready to complete screen, click Finish.

## Preparing the VMware View Planner 4.6 test harness

### Deploying the VMware View Planner 4.6 OVA

1. Download the latest viewplanner-harness OVA file from VMWare.
2. From the vCenter client, select the infra host, and right-click Deploy OVF Template...
3. In the deploy OVF Template wizard, select local file, and click Browse.
4. Select the viewplanner-harness OVA, click Open, and click Next.
5. Select a datacenter, and click Next.
6. Select the infrastructure host, and click Next.
7. Review details, and click Next.
8. Accept the license agreements, and click Next.
9. Select the infrastructure datastore, and click Next.
10. Select the isolated network, and click Next.
11. To deploy the harness, click Next, and click Finish.
12. Power on the new VM, and note the IP address.

### Configuring the VMware View Planner 4.6 test harness

1. Open a browser, and navigate to `https://<ip address of the harness>`
2. Log in as follows:
  - User name: `vmware`
  - Password: `viewplanner`
3. Click Log in.
4. Click Servers
5. Select infra, and click Add New.
6. Enter the following information:
  - Name: `vCenter`
  - IP: `<hostname or IP of vCenter>`
  - Type: `vCenter`
  - Datacenter: `<Datacenter name>`
  - Domain: `vsphere.local`
  - Username: `administrator`
  - Password: `<SSO password for vCenter >`
7. Click Save.
8. Click Identity Server.
9. Click Add New.



10. Enter the following information:
  - Name: `test.local`
  - IP: <IP of DC1>
  - Type: `microsoft_ad`
  - Username: `administrator`
  - Password: <password for administrator@test.local>
11. Click Save.

## Preparing the Windows 10 Enterprise (x64) gold image VM

We created a Microsoft Windows 10 Enterprise VM; installed Microsoft Office Professional Plus 2019, Google Chrome™, and Adobe® Reader® DC on it; and prepared the VM for cloning.

### Creating the Windows 10 gold VM

1. Log into vCenter via the VMware Web client.
2. Right-click the Virtual Machines tab, and select New Virtual Machine.
3. Select Create a new virtual machine.
4. Assign the name view-gold, and click Next.
5. Select the Dell EMC PowerEdge R840, and click Next.
6. Select the datastore for the gold image.
7. Choose compatible with ESXi 7.0 U2 and later, and click Next.
8. Choose Windows, choose Microsoft Windows 10 (64-bit), and click Next.
9. For CPUs, select four CPUs, 8 GB RAM, Reserve all guest memory (All locked), 90 GB Disk, and click Next.
10. Click Finish.
11. Right-click the VM, select Edit Settings.
12. Click CD/DVD Drive drop-down menu, and select Datastore ISO file.
13. Browse to the Microsoft Windows 10 x64 installation disk ISO.
14. Click Connect....
15. Click OK.
16. Power on the Microsoft Windows 10 VM.

### Installing Windows 10 Enterprise (x64) on the gold image VM

1. When the installation prompts you, press any key to begin set up.
2. Click Install now.
3. Select Windows 10 Enterprise, and click Next.
4. Accept the license terms, and click Next.
5. Select Custom, and select the drive that will contain the OS.
6. Click Next.
7. Select the keyboard layout, and click Yes.
8. Click Skip a second keyboard layout.
9. Click Domain join instead.
10. For the username, type `user`, and click Next.
11. Enter no password, and click Next.
12. At the privacy settings screen, click Accept.
13. To decline Cortana, click Not now.
14. Install VMware Tools, and select Complete Installation. For more information, visit [http://kb.vmware.com/selfservice/microsites/search.do?language=en\\_US&cmd=displayKC&externalId=340](http://kb.vmware.com/selfservice/microsites/search.do?language=en_US&cmd=displayKC&externalId=340).
15. Reboot the server.
16. Right-click Start, and click System.
17. Click Rename this PC, and enter a new name for the VM.
18. Click Next, and click Restart now.
19. Connect the machine to the Internet, and install all available Windows updates. Restart as necessary.
20. Join the domain, and shut down the VM.

## Enabling host timer access

1. Open an SSH session to the ESXi host, and edit the .vmx file of the gold VM in vi.
2. Add an entry: `monitor_control.pseudo_perfectr = "1"`
3. Save, and exit the file.
4. Start the VM from vCenter.

## Installing the VMware Horizon 8 agent on the gold Image VM

1. Navigate to the VMware Horizon View 8 media, and run the VMware-Horizon-Agent-x86\_64-2106-8.3.0-18287218.exe file.
2. Click Run.
3. At the Welcome screen, click Next.
4. Accept the VMware end user license agreement, and click Next.
5. Select defaults, and click Next.
6. Click Install.
7. To reboot, click Yes.

## Installing VMware View Planner agent

1. Double-click viewplanner-agent-4.6.0.0-16995088.exe.
2. Click Next.
3. Accept the End user license agreement.
4. Click Next.
5. Enter the IP address of the view planner harness, and click Next.
6. Wait for the installer to complete, and click Finish.
7. Reboot the VM.

## Installing Google Chrome on the gold image VM

1. Download the newest version of Chrome.
2. Double-click the installer executable, and click run.
3. Close Chrome.
4. Find the Selenium driver matching your current version of Chrome at [chromedriver.chromium.org/downloads](http://chromedriver.chromium.org/downloads).
5. Create a folder named [baseVersion\_fullVersion] inside C:\viewplanner\lib\chrome\_driver.
6. Extract chromedriver from the downloaded zip file, and copy to a new folder.
7. To prevent version changes during testing, rename the C:\Program Files\Google\GoogleUpdate.exe to GoogleUpdateDisabled.exe

## Installing Adobe Reader DC

1. Download, and install Adobe Reader from <http://acrobat.adobe.com>.
2. Do not install any McAfee add-ons.

## Installing Office Professional Plus 2019 on the gold image VM

1. Install Microsoft Office Professional Plus 2019.
2. Open Windows Update, click Advanced options.
3. Enable Receive updates for other Microsoft products, and click Back.
4. Click Check for updates, and reboot if necessary.

## Disabling Windows Updates

1. Click Start, and type `Services`.
2. Scroll down to Windows Update, right click it, and select Properties.
3. Under Startup type, select Disabled.
4. Under Service status, click Stop, and click OK.

## Disabling Windows Firewall

1. Click Start, and type `Firewall`.
2. Select Firewall & Network Protection.
3. Turn off Microsoft Defender Firewall for Domain, Private, and Public networks.

## Setting Windows Media Player as default Video Player

1. Click Start, and select Settings.
2. Click Apps.
3. In the left pane, click Default.
4. Under Video player, select Windows Media Player.

## Configuring Regedit for QuickPrep

To clone the clone the gold image with quick prep we needed to disable activation. To do this, we edited the registry.

1. Click Start→Run, and type `regedit`
2. Browse to HKEY\_LOCAL\_MACHINE\SYSTEM\CurrentControlSet\Services\vmware-viewcomposer-ga.
3. Right-click Skip License Activation, and click Modify...
4. Change the value from 0 to 1, and click OK.

## Configuring Regedit for autologin

1. Click Start→Run, and type `regedit`
2. Browse to HKEY\_CURRENT\_USER\Software\Microsoft\Office\16.0\Common\General.
3. On the Edit menu, click New→DWORD (32-bit) Value.
4. Name the value shownfirstrunoptin, and click Enter.
5. Double-click shownfirstrunoptin.
6. In the Edit DWORD dialog box, type 1, and click OK.
7. Browse to HKEY\_CURRENT\_USER\Software\Microsoft\Office\16.0\FirstRun.
8. On the Edit menu, click New→DWORD (32-bit) Value.
9. Name the value BootedRTM, and click Enter.
10. Double-click BootedRTM.
11. In the Edit DWORD dialog box, type 1, and click OK.
12. Browse to HKEY\_CURRENT\_USER\Software\Microsoft\Office\16.0\Registration.
13. On the Edit menu, click New→DWORD (32-bit) Value.
14. Name the value AcceptAllEulas, and click Enter.
15. Double-click AcceptAllEulas.
16. In the Edit DWORD dialog box, type 1, and click OK.

## Configuring Regedit to disable lock screen

1. Click Start→Run, and type `regedit`
2. Browse to HKEY\_LOCAL\_MACHINE\SOFTWARE\Policies\Microsoft\Windows
3. Right-click Windows.
4. Click New→Key.
5. Name the new key Personalization, and click Enter.
6. In the Personalization folder, right-click the right pane of the Registry Editor, and select New→DWORD (32-bit) Value.
7. Name the value NoLockScreen, and click Enter.
8. Double-click NoLockScreen.
9. In the Edit DWORD dialog box, type 1, and click OK.

## Configuring Regedit to suppress MS Office 2019 First Things First message

1. Click Start→Run, and type `regedit`
2. Browse to HKEY\_CURRENT\_USER\Software\Microsoft\Office\16.0\Common\General.
3. On the Edit menu, click New→DWORD (32-bit) Value.
4. Name the value shownfirstrunoptin, and click Enter.
5. Double-click shownfirstrunoptin.
6. In the Edit DWORD dialog box, type 1, and click OK.
7. Browse to HKEY\_CURRENT\_USER\Software\Microsoft\Office\16.0\FirstRun.
8. On the Edit menu, click New→DWORD (32-bit) Value.
9. Name the value BootedRTM, and click Enter.
10. Double-click BootedRTM.
11. In the Edit DWORD dialog box, type 1, and click OK.

12. Browse to HKEY\_CURRENT\_USER\Software\Microsoft\Office\16.0\Registration.
13. On the Edit menu, click New→DWORD (32-bit) Value.
14. Name the value AcceptAllEulas, and click Enter.
15. Double-click AcceptAllEulas.
16. In the Edit DWORD dialog box, type 1, and click OK.

## Optimizing the Windows 10 gold image VM

1. Download the Windows optimization tool from VMware.
2. Extract the zip file, and run VMwareOSOptimizationTool.exe.
3. Click Template, and select VMWare\Windows 10.
4. Click Analyze.
5. Select all suggestions, and click Optimize.
6. When settings finish applying, reboot the VM.

## Finalizing the Windows 10 gold image VM

1. In vCenter, shut down the Windows 10 gold image, and copy it to the other two servers under test.
2. Start each clone.
3. To accept the EULA and activate Office on each clone, run Word.
4. Shut down the VMs.
5. For all three gold images, right-click, and select Take a snapshot.
6. Name each snapshot, and click OK.

## Deploying virtual desktops using VMware Horizon 8 Connection Server

1. Open Horizon 8 View Administrator.
2. Log in as an administrator.
3. Select Settings→Domains.
4. Under Instant Clone Engine Domain Accounts, click Add.
5. Enter the Domain Name, Username, and Password for the domain administrator.
6. Click OK.
7. Under Inventory, click Desktops, and click Add.
8. If given a More Information popup, click Ignore.
9. Select Automated Desktop Pool, and click Next.
10. Select Instant Clone, and click Next.
11. Select Dedicated, and leave Enable Automatic Assignment checked.
12. On the Storage Policy Management page, select Use VMware Virtual SAN, and click Next.
13. For the pool ID and display name, type pool, and click Next.
14. Under Naming Pattern, enter an appropriate name pattern for the pool with a variable name defined, such as vditest-{n:fixed=3}.
15. Note this for the View Planner testing settings in the next section.
16. Select All Machines Up-Front.
17. Under Pool Sizing, type the max number of desktops, the number of spare (power on) desktops, and click Next.
18. Under vCenter Settings, select the following depending on where you are deploying virtual machines:
  - Golden Image in vCenter
  - Snapshot
  - VM folder location
  - Cluster
  - Resource pool
  - Datastore
19. Click Next
20. On the Desktop Pool Settings page, leave defaults, and click Next.
21. On the Remote Display Protocol page, leave defaults, and click Next.
22. On the Advanced Storage Options page, left defaults, and click Next.

23. Under Guest customization, select the following:
  - Domain: test.local (Administrator)
  - AD container: CN=Computers
  - Use Clone Prep
24. Click Next.
25. Click Submit.
26. Note: Because this testing is local, you do not need to specify any entitlements.

## Creating the VMware View Planner benchmark run profiles

1. Log into the View Planner run harness GUI: [https://\[runharness IP\]/admin](https://[runharness IP]/admin).
2. Log in with the following credentials:
  - User name: `vmware`
  - Password: `viewplanner`
3. In the left pane, click Run Profile.
4. In the top-right window corner, click Add New.
5. Add a name for the profile.
6. Select local as the Run Mode.
7. Enter the desired number of VMs for VM/Session Count.
8. Leave Iteration Count at 5
9. Leave Rampup Time at 180, set Think Time to 1, and click Next.
10. Enter a name for the workgroup.
11. Note that it cannot start with a number.
12. Select the Workprofile Standard\_Profile.
13. Leave Percent VM at 100 percent.
14. Next to Desktop VM, click the plus sign.
15. Enter in a prefix name which matches the prefix used in the pool above, "vdiptest-".
16. From the Infraserver dropdown, select your vCenter server.
17. Leave Vdiserver Name unfilled, click the green check, and click Next.
18. Review your profile, and click Finish.

## Running the VMware View Planner benchmark

1. Open a browser to <http://<viewplanner IP address>/admin>, and login as vmware
2. Click Run, and click New Run.
3. Select the Run Profile, enter a Run Name, and click Start.

Read the report at <https://facts.pt/tm9232G> ▶

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