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1 Upgrade guide

1.1 Recommendations:

When migrating from Login VSI 3.x to Login VSI v4 a complete new installation is recommended, however an in-place upgrade is also possible. As the architecture of v4 is very similar to version 3 this upgrade is relatively easy.
2 Upgrade:

2.1 Cleanup:

2.1.1 Active Directory

If during the setup of Login VSI 3.7 you chose to let Login VSI automatically prepare Active Directory accounts it is recommended to delete these accounts as well as any policies that will be deprecated by the removal of the Login VSI users and OU’s. Make sure to select the appropriate OU and make sure no objects that should not be deleted are placed within any of the Login VSI OU’s.

On your domain controller start “Active Directory Users and Computers” (dsa.msc)

Browse to the Login_VSI\Computers OU and temporary move computer objects to a safe location. For example the root “Computers” OU

Right click the “Login_VSI” OU and choose Delete
To remove deprecated policy objects please execute the steps below:

On your domain controller start the “Group Policy Management Console” (gpmc.msc) and in the GPMC console tree double-click “Group Policy Objects” in the forest and domain containing the Login VSI 3.x setup.

Right click the “VSI System” GPO and select “Delete”
Consider the warning and select yes to agree on deletion of the GPO

Right click the “VSI User” GPO and select “Delete”

Consider the warning and select yes to agree on deletion of the GPO

Finally the logon scripts placed in the Netlogon folder during Login VSI 3.x setup need to be removed.

On your Domain Controller browse to the netlogon folder. (\localhost\netlogon)

Right click “VSI_Launcher_Logon.cmd” and select “Delete”
Right click “VSI_Logon.cmd” and select “Delete”

2.2 VDI or SBC image

Login VSI 3.x during target setup installed applications needed to run the workload. If these applications are part of your base image there is no need to remove / update them. If you want to comply with Login VSI 4 testing methodologies it is recommended to remove and update these applications.

On your desktop (image) start “Programs and Features” (appwiz.cpl)

Select “Adobe Flash Player 11 ActiveX” and click “Uninstall”

Select “Adobe Reader 9.1” and click “Uninstall”
Select “Adobe Shockwave Player” and click “Uninstall”

Select “Bullzip PDF Printer” and click “Uninstall”

Select “FreeMind” and click “Uninstall”

Select “Java™ 6 update 21” and click “Uninstall”

Select “Kid-Key-Lock” and click “Uninstall”
Removal of deprecated files from the target machine.
Browse to C:\Program Files\Delete the folder “Login Consultants”

2.3 Launchers
The Login VSI 3.x environment required an installation of the launcher component, in Login VSI 4 this component will run directly from the VSIshare without any installation required. Therefore the launcher application can be removed.

On your launcher VM or Machine (image) start “Programs and Features” (appwiz.cpl)
Select “Login VSI Launcher 3.x” and click “Uninstall”

2.4 Analyzer
The Login VSI 3.7 analyzer can run alongside the Login VSI 4.0 analyzer therefore it is recommended to leave it in place in case you want to analyze tests that have been executed with Login VSI 3.7

2.5 Installation:
The steps required to install Login VSI can be found in the Login VSI v4 Admin Guide. These steps are identical to running a new installation.
3 How V4.0 workloads compare to V3.* workloads

Moving to a new version of Login VSI with new workloads, a completely rewritten engine and new analytics means that results differ from previous versions. In this chapter you will find an overview of differences gathered on a recent spec Cisco UCS platform. For a general overview of the different workloads please check the “Admin Guide”, if you want to review the design principles of the workloads please check the “Login VSI 4.0 Workload Language Reference Guide” both available at www.loginvsi.com

All sessions are launched in a timeframe of 2880 seconds (48 minutes) according to the V4.0 Benchmark Mode principles. The interval is calculated based on the amount of sessions. Example: With 210 sessions the interval will be 13.7 seconds per session this setting has also been applied to the v3.7 tests for honest comparisons.

Each test is executed five times excluding the first run where the local profile is created. ESXtop data is collected during each test and the graphs are averages of the ESXtop data from the five test runs.

For a better overview the base phase has been removed from the graph but has been executed.
3.1 Comparing CPU utilization

The %Util Time show the ESXtop Processor utilization. This data has been collected using ESXtop on the same system with as only difference the Login VSI version. Both Login VSI 4 and 3.7 medium workloads were configured with 2vCPU to allow fair comparisons.

With the Login VSI 4.0 Medium workload the CPU utilization is 22% higher than Medium Login VSI 3.x. when comparing with 95 sessions. Please not that although CPU Utilization is higher in 4.0 the VSI\textmax calculation is more conservative.
3.2 Comparing disk operations

Where the CPU load has increased during the Login VSI test the total of read and write is reduced in version 4.0.

This graph shows an overview of commands per seconds for a Login VSI 3.7 and a 4.0 test.

"Commands/sec"

Splitting the commands/sec in both reads and writes gives the following overview:

"Writes/sec"
If Login VSI 4.0 workload is set as a 100% mark it is possible to conclude that on average the Login VSI 4.0 workload generated 42% less write IO when testing with 95 sessions.

![Medium workload - Write IO in %](image)

If Login VSI 4.0 workload is set as a 100% it is possible to conclude that on average the Login VSI 4.0 medium workload uses 30% less read IOs largely caused by increasing the workload length and moving the file libraries to the VSIsshare when testing with 95 sessions.
3.3 Summary graphs

Comparing the Login VSI 3.7 medium workload with the Login VSI 4.0 medium workload on CPU and IO during the 95 user test.

Comparing other workloads Login VSI 3.x workloads to their 4.0 equivalent: