



VMware Mirage

Release Notes 3.6

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New Features

VMware Mirage v3.6 introduces the following features and improvements:

- **Base Layer (BL) Provisioning** - Prepares a new device to be part of the organization by cleaning up the device files, applying an existing BL, and then seamlessly migrating the contents of the endpoint to the Mirage Server (as in Centralize Endpoint).
- **Fusion support** - Mirage supports managing desktops running in a Fusion hypervisor for Macs.
- **Streaming enhancements**
 - During Restore processing, you can view the streaming status of each downloading file. You are notified if a file you try to open is not finished downloading, and advised when that file becomes ready for use.
 - Performance improvements were implemented which promote faster response time and enhanced user experience.

- **Scalability improvements** - Faster management response time in larger scale CVD configurations.
- **Reconnecting a device to a CVD (Force Upload)** - A device that has lost its synchronization for any reason can be reconnected to its CVD and can continue backing up incremental changes as before.
- **Default Policy Auto Selection**
 - In endpoint assignment wizard streams, a default Upload Policy (predefined in Security Settings) automatically applies to the endpoint if no other policy is specifically selected.
 - Configuration tabs are more logically organized - Upload Policy selection moved from *CVD Auto Creation* tab to *General* tab.

Fixed Issues

- Bug 6939 - Mirage client auto-upgrade may fail if it is executed immediately after another Mirage operation completes the reboot process.
- Bug 7459 - User profile migration may fail in some rare cases.
- Bug 7819 - Using the Mirage management console to reboot a machine which is still streaming files as part of a restore operation will result in the cancellation of the streaming process.
- Bug 974 - Downgrading Office 2007 to Office 2003 through the Mirage BL mechanism is not supported.
- Bug 5257 - Creating a reference CVD from a BL will clone the original reference machine from which the BL was created. Unlike Win7 migration, this cloning doesn't perform any machine specialization/instantiation (such as cleaning the WSUS client ID). Therefore, if the original reference machine is still running, WSUS ID conflicts may occur.
- Bug 6632 - The BL update process removes Microsoft common shared components (such as Microsoft.VC90.MFC) and therefore may break user-installed applications.
- Bug 7022 - After a BL update, a Windows update may fail.
- Bug 7824 - When a restore is performed to a CVD that contains EFS files, the administrator may receive a false warning that some files will not be encrypted due to failure to validate some of the certificates.

Mirage Client

- Windows system restore points do not work on machines installed with Mirage. Bug 3198.
- BLs that are used for XP to Windows 7 migration, must be re-captured with the Mirage 3.0 Client after upgrading from Mirage 2.0 to Mirage 3.0. Bug 6995.

- The Client does not start the upload process if BL Verification has already started – even if the Force Upload interval has passed.
Workaround: The Client will upload after the BL is delivered successfully, or if the BL Assignment is canceled. Bug 4304.
- The Check Reference Machine menu option is missing from the Admin Tools menu on a Pending reference device in suspended mode. This happens only if the device becomes disconnected after being suspended.
Workaround: Unsuspend the device. Bug 4434.
- After a Selective Restore, a new user profile might be created for a preserved user profile. This only happens when restoring between a CVD that does not include the specified user to a device that does have the user profile. This is mainly relevant when restoring to an older snpahost that does not include the user profile. In this case, when the user logs in, he will have a new user profile but without its content.
Workaround: Manually copy data out of the old user profile, or only perform Selective Restore between CVDs and devices that have the same user list. Bug 4667.
- Canceling a Take VSS snapshot operation on the desktop might result in an Access Violation exception.
Workaround: Desktop will malfunction and automatically restart and retry the operation. This Bug 4249.
- In rare cases, a post BL script failure will not be reported at the server. This can happen if the post BL script runs before the client is connected to the server. Bug 3285.
- A Driver package sent with a BL that includes unprotected files will not work properly on the end points.
Workaround: Use the Mirage driver library feature and don't place these drivers in the BL. Bug 3294.
- Reverting back to an XP CVD snapshot after migrating the client to Windows 7 will leave some Windows 7 directories on the machine. Bug 3895.
- Unprotected folders are uploaded by Mirage (only folders, not the files). This is due to Recursive rules in the policy that apply on the same folder in "unprotected include" and "unprotected exclude", causing the inner folders to be protected. Bug 4330.
- File Level Restore (FLR) on offline files during streaming is not supported. Bug 4647.
- Restarting a client machine during Mirage client upgrade may cause the Mirage client to be removed from the machine.
Workaround: Manually install the Mirage client. If the Mirage client fails to install, contact the VMware support team. Bug 5548.
- After reverting back from a Win 7 snapshot to a XP snapshot with a different bitness type, Mirage can't be uninstalled.
Workaround: Contact the VMware support team. Bug 6922.

- The status window flickers between startup steps and streaming. After the PIVOT process, when the client starts the ignition steps and streaming, the status window reports both states “interleaved”. Bug 6946.
- In the User State Migration flow, local accounts on the source machine are not migrated to the new machine. Bug 7013.
- User profile migration is not supported if some or all user profile folders are redirected to a non-system drive.
Workaround: Call the VMware support team before performing user profile migration in such circumstances. Bug 7828.
- After a user profile migration, the streamed file may appear as being offline. The file is downloaded successfully and can be used, but may have an offline bit.
Workaround: Remove the offline bit from the file attribute. Bug 7861.
- USMT times out because of Trend Micro triggered streaming of files.
Workaround: Configure USMT as a trusted process in Trend Micro. Bug 7949.
- "Open with" does not work during streaming.
Workaround: Open the file by double-clicking it, or open the application first. Bug 8060.
- Reverting back from Win7 to an XP OS may leave some “win7” directories on the machine, such as Program files (x86). Bug 8109.
- While running a USMT migration, the Mirage system tray icon displays Idle state.
Workaround: None. Bug 8221.
- Client upgrade may fail because of McAfee leftovers. When the McAfee software is uninstalled from the end user machine, it leaves its vb_script scan module registered in the registry (in a corrupted state). This means that the vb_script can't be executed by our MSI installer and prevents the Mirage client from being installed.
Workaround: See: http://answers.microsoft.com/en-us/windows/forum/windows_7-windows_programs/error-2738-could-not-access-vb_script-run-time-for/1a4499ae-8bc1-4534-9c6f-4d399ac70d9a.
Bug 8340.

Mirage Client – Application Compatibility

- The BL update process does not support Kaspersky. Bugs 6662,8149.
- Mirage cannot distribute Microsoft SQL Server using the BL update process. Microsoft SQL Server uses locally installed Users and Groups that are not distributed by Mirage.
Workaround: Install Microsoft SQL Server on the endpoints as part of the Machine Area.
Bug 4202.

- Distributing Microsoft Live Messenger from the BL when a different version of Microsoft Live Messenger installed in the Machine Area can cause Messenger not to work. The error “msnmsgr.exe entry point not found (uxcore.dll)” appears. Workaround: Perform M-Cleanup, or manually remove the conflicting version of Live Messenger before distributing the BL. The file that needs to be removed in this case is: “c:\Program Files\Windows Live\Messenger\uxcore.dll”. Bug 4410.
- Distributing applications via the BL that will Upgrade/Downgrade existing versions installed in the Machine Area can cause duplicate entries in the Add/Remove Programs menu (e.g Firefox). Bug 4414.
- The Mirage Client fails to update certain Windows files when McAfee VirusScan Enterprise is installed with the "Prevent Windows Process Spoofing" option set. Workaround: Either mark Mirage as a “Low Risk” Process (see <https://kc.mcafee.com/corporate/index?page=content&id=KB58692>), or disable the “Prevent Windows Process Spoofing” option. Bug 3702.
- Mirage cannot distribute the Alcohol 120% software via a BL Update as it does not break current installations on endpoints. Bug 4752.
- After removing the Sun Java RE via a BL update on a 64-bit machine, a problem arises when reinstalling the same version. Workaround: Install a newer version of the Java RE or manually delete the key: HKEY_LOCAL_MACHINE\SOFTWARE\Wow6432Node\JavaSoft Bug 4769.
- The AutoPlay menu may show multiple options after a BL update. Bug 3334.
- When a new version of an already installed application is installed from a BL, the M-BL report may indicate that the application is being installed and not updated. Bug 4806.
- Upgrading Office 2007 to Office 2010 on a user machine that has Visio installed prevents the user from uninstalling Visio 2007 in future. Workaround: Run repair on the Visio 2007 and then uninstall it. Bug 6433.
- During a rebase with offline folders, the offline folders cache is sometimes corrupted and the user cannot use the offline folders on the target machine. Workaround: If this should occur, contact the VMware support team to resolve the issue. Bug 6886.
- When a BL is assigned during Centralize end point, application conflict warnings do not appear. Bug 6905.
- Visio 2007 is not activated after a BL update with Office 2007. Workaround: Clean the Visio product leftover from the BL, see <http://support.microsoft.com/kb/895456>. Bug 7010.
- Mirage does not support downgrading Office 2010 to 2007 through the BL mechanism. Bug 7030.

- The Program List in MMC may not show applications which are listed under the following registry key in the CVD:
HKEY_LOCAL_MACHINE\SOFTWARE\Classes\Installer\Products
Bug 2628.
- Unactivated Office applications may also appear in the list of Office applications during the capture BL wizard process. Bug 6943.
- Following a rebase of a CVD with pending WUs, WU failure may occur.
Workaround: Ignore the WU failure and re-check for WUs after reboot. Bug 6952.
- If Enforce Core Image with user application removal is performed on a CVD that has Google Chrome installed by the user and configured as default browser, the machine will be left without a default browser.
Workaround: Select another browser as the default browser. Bug 7434.
- User profile migration will not migrate Office application data if the CVD is Win7 64 bit and the Office version is 32bit. Bug 7688.
- Mirage fails to update files on a Symantec protected endpoint.
Workaround: Add Mirage processes to Symantec's Exceptions Policies. Bug 7761.
- Outlook may fail to open hyperlinks after a BL update which changes the browser.
Workaround: Re-set the default browser settings. Bug 7011.
- Checkpoint full disk encryption software may cause BSOD to occur on the target machine after a rebase.
Workaround: Create the following value under this registry key on the target machine:
HKEY_LOCAL_MACHINE\ControlSet001\Control\CriticalDeviceDatabase\gendisk]
Service"="disk.
Bug 7437.
- When delivering McAfee in a BL, the McAfee Agent GUID comes from the BL and is duplicated to all the endpoints. This causes all machines to appear the same in McAfee Management.
Workaround: see <https://kc.mcafee.com/corporate/index?page=content&id=KB56086>
Bug 8265.
- After Win7 migration, the target device has the same client Machine ID as the reference machine.
Workaround: Windows can generate a new CMID using:
cscript c:\Windows\system32\slmgr.vbs /dli
Bug 8257.

- When a BL that was captured on an ESX machine with ESX VMware tools is assigned to a Fusion machine, a BSOD error may occur. This happens because a version of VMware tools ESX is installed on the Fusion machine.
Workaround: Do not install VMware tools on the ESX reference machine if you want to use this reference machine to manage Fusion machines as well. Use the post BL script to install VMware tools, or install VMware tools on the Fusion machine before applying the BL. Bugs 8256, 8211.
- Assigning a BL with McAfee on a Fusion VM causes no network connectivity.
Workaround: The VMware support team will supply a script that must be installed in the reference machine before capturing the BL. Bug 8226.

Mirage Client - Device Drivers

- “Ghost” devices might appear in the Device Manager after migration/BL update.
Workaround: This does not affect the user in any way. The device can be removed manually using Device Manager or a post migration script. Bugs 4474, 3588.
- Enforce BL/BL update might cause device reinstallation. This happens when the BL includes device drivers older than the ones installed on the target machine.
Workaround: Make sure the BL includes the latest versions of all drivers. Bug 4664.
- Enforce BL/BL update might cause graphic device reinstallation. This happens when the BL includes a graphics driver that does not match the target device.
Workaround: Remove all graphics drivers from the reference machine. (See the appropriate guidelines document.) Bug 4448.
- After a BL update, a problem occurs when installing drivers from the Driver Store. This can happen if the Reference Machine has a driver installed with the same name but a different binary than the one included in the Driver Store (e.g SoundMAX Audio Driver).
Workaround: Uninstall all unnecessary drivers from the Reference Machine. Bug 4269.
- After a rebase to VM, some Virtual Devices are not installed (Pointing Device, Audio and USB hub).
Workaround: A Post BL script is available to fix this issue. Contact the VMware support team. Bug 4456.
- During a restore, in some rare cases, the user will be unable to logon. This happens if installation of the keyboard driver plug-and-play requires a system reboot. Workaround: Perform a hard reboot of the machine. Bug 7224.

Mirage Server & Mirage Management Server

- Due to an NTFS compression limitation, do not use NTFS compression with Mirage in large deployments. See more at <http://support.microsoft.com/kb/967351>. Bug 7957.

- The Server can exceed Maximum Connection if multiple clients try to connect at the same time. This issue is mitigated by the fact that the window of opportunity is small and hence the occurrence of excessive connections will be quite limited.
Workaround: Manually disconnect devices from the server. Bug 3633.
- A non empty volume cannot be added as a Mirage storage volume (even if it only includes the automatically 'System Volume Information' folder).
Workaround: Create a directory on the volume and add the new directory as Mirage storage. Bug 4435.
- During a CVD restore, if the volume on which the CVD is located in the server fails for any reason, the CVD will move to Suspend mode. After resolving the volume problem, the IT manager should resume the CVD and re-confirm the restore operation. Bug 6712.
- If the IT manager performs a force remove to a volume where the USMT library is located, the system will continue to allow the IT manager to choose U migration although no USMT is present. The operation will fail, the end result being that the CVD will be connected to the new device without the user data moving to the right place. Bug 7005.
- Mirage server installation fails if .NET 4.0 is installed.
Workaround: Uninstall .NET 4.0 and install .Net 3.5. Bug 7331.
- The migration task Download phase may seem stuck at 100% for a long time. This is normal behavior due to Mirage performing actions on files on the target machine, and should be ignored. Bug 7371.
- The client is returned to pending restore after a disconnect during force upload.
Workaround: Perform the force upload operation again. Bug 8087.
- USMT 4.0 migration from x86 to x64 results in corrupted COM+ components.
Workaround: See <http://support.microsoft.com/kb/2481190>. Bug 8013.
- Driver profile validations in a restore are based on the target device and not on the CVD. This may display a wrong validation message.
Workaround: Ignore the warning validation in this case. Bug 8103.
- EMC's Isilon storage does not support a long Unicode file name.
Workaround: If you use such a storage, remove the specific files from the CVD policy or contact the VMware support team. Bug 8304.

Mirage Management Console

- System only Restore is available during a rebase operation. When using System only Restore with a rebase, the target machine's local User Area is preserved and replaces the CVD User Area, causing loss of data from the CVD.
Workaround: Do not use Selective Restore with rebase. Bug 3715.

- When performing a migration operation on a device in Restore Streaming state, the migration starts immediately at the end of streaming without forcing an upload on the new machine.
Workaround: Wait for streaming to complete before initiating the migration. Bug 4608.
- Users connected to a server but residing on an un-mounted volume are still shown as connected with no indication that they have a problem.
Workaround: If users cannot perform upload, check that the volume status is ok. Bug 4651.
- When restoring a reference machine from a BL, operation seems to start but the CVD is suspended until the server copies the BL files to the CVD.
Workaround: Wait for the server to finish copying the files. Bug 4137.
- The Program Inventory displays out-of-date information after a BL Update/Rebase operation before the first upload.
Workaround: Wait for the first upload to complete (can be forced by Sync Device in management). Bug 4297.
- Changing the Upload Interval via Upload Policy only takes effect after the next Upload Interval.
Workaround: Wait for the next upload to see the new settings take effect. Bug 4605.
- When attempting to update a filter based on Active Directory Groups, only groups present at the time the filter was created are offered.
Workaround: Remove the filter and create a new filter. The list of Active Directory Groups will be refreshed. Bug 3635.
- Move CVD Task may reach 100% but is not finished.
Workaround: Wait for the task to reach done state. Bug 4701.
- Assigning a BL from an un-mounted volume does not work but no error message or log is generated.
Workaround: If a BL assignment does not seem to be progressing, check that the volume that the BL resides on is running properly. Bug 4801.
- The Dashboard is cropped when using large fonts (120 DPI). Currently only 100 DPI is supported. Bug 2200.
- If the IT manager deletes a CVD while the client is initializing upload, the device will appear in the pending list only after the initialize action is finished. Bug 2686.
- Mirage supports only the following resolutions: 1280x800, 1440x900, 1680x1050. Bug 2850.
- The Set driver library operation is not supported while another operation is running on the CVD. No blocking or warning occurs. Workaround: Re-apply the driver library set operation. Bug 5972.

- When importing new drivers to the driver library while preserving the folder structure, the drivers do not immediately appear under the Driver Library node.
Workaround: Refresh by pressing F5. Bug 6902.
- A false server communication error may be displayed on the Management console. This can happen if the management console is open for a long time. The error can be safely ignored. Bug 7211.

File portal

- A wrong error message is generated when management service is not available. The end user is notified of a bad username or password although the problem is actually that the management service is down. Bug 6947.
- In rare cases, the end user may not receive the Web Portal registration window if he logs in to the machine before the Mirage service was able to connect to the server.
Workaround: Re-login to the machine. Bugs 7017, 6823.
- In rare cases, Webinstall may fail with the error message:
“MSI failure. Error: INSTALL_FAILURE”.
Workaround: Run the installer again. Bug 7326.