



| Release Notes



Connection Broker

Advanced Connection Management for Multi-Cloud Environments

Version 8.2 – October 25, 2018

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Connection Broker 8.2.73 – Release Notes

Connection Broker 8.2.73 is a minor update to 8.2.71 and provides the following features and issue resolutions. Please, consult the release notes for previous versions for additional features and fixes that may be available in this release, relative to your current Connection Broker version.

IMPORTANT NOTE: Connection Broker 8.2.73 is required when using Leostream Agent 7.0 for Microsoft Windows remote desktops.

Features

- Connection Broker 8.2.73 and Leostream Agent 7.0 for Windows now use a public/private key exchange to verify communications.
- Pools can now provision EC2 T3 instances in AWS.
- The Connection Broker OpenSSL library has been upgraded to version 1.0.2p. The Connection Broker, therefore, must recompile during an upgrade. The upgrade is complete only after the Connection Broker reboots.

Resolved Issues

- Improved the display of certain double-byte characters in user names.
- The **When User Disconnects from Desktop** section of the release plan is now executed when Leostream Connect reports a client-close event for a remote desktop that the user connected to but never logged into. The desktop must be running the Leostream Agent for this new behavior to occur.
- Pools that provision in AWS no longer reset the selected AWS AMI when the Connection Broker loses its connection to the AWS center.
- Setting a desktop display names no longer resets the machine name in AWS. AWS instances retain their original machine name even when a custom display name is used in the Connection Broker.
- Manually refreshing a center no longer places duplicate `hda_scan` jobs into the work queue.

Connection Broker 8.2.71 – Release Notes

Connection Broker 8.2.71 is a minor update to 8.2.67 and provides the following functionality and issue resolutions. Please, consult the release notes for previous versions for additional features and fixes that may be available in this release, relative to your current Connection Broker version.

- The default protocol plan command line parameters for VMware View now support client versions 2.3.3 and later.
- Release plans now allow you to specify a delay time before deleting a virtual machine.
- When provisioning AWS instances, any Leostream tags associated with those instances are now applied also to the associated AWS volumes.
- Additional instances types are available when provisioning in AWS.
- Resolved an edge case where two provisioned virtual machines could be assigned the same value for the {SEQUENCE} dynamic tag.
- The new **Enable Strict-Transport-Security header (HSTS)** option on the > **System > Settings** page allows you to instruct the Connection Broker to enforce strict transport security and sets the expiration time for when the Connection Broker can be accessed using only HTTPS.

Connection Broker 8.2.67 – Release Notes

Connection Broker 8.2.67 is a minor update to 8.2.63 and provides the following functionality and issue resolutions. Please, consult the release notes for previous versions for additional features and fixes that may be available in this release, relative to your current Connection Broker version.

- **Leostream Connect 3.8.7** for Windows operating system – Resolves issue exiting shell mode using the Ctrl-Shift-X keys on Windows 10.
- Provisioning enhancements for Amazon Web Services – You can now create T2 Unlimited instance types and assign an IAM role to provisioned EC2 instances
- Resolves issues accessing the Connection Broker Administrator Web interface for user's whose Active Directory account has limited access to resources
- Resolves an upgrade problem with `Net : :SSLeay`. Note that when upgrading to this release or any subsequent release from a Connection Broker version prior to 8.2.67, the Connection Broker must recompile to resolve this issue. The upgrade is complete only after the Connection Broker restarts.

Connection Broker 8.2.63 – Release Notes

Connection Broker 8.2.63 is a minor update to 8.2.52 and provides the following functionality and issue resolutions. Please, consult the release notes for previous versions for additional features and fixes that may be available in this release, relative to your current Connection Broker version.

Important Note

The User Connection History report on the > **Status** > **Reports** page is no longer available. If you are currently using this report, please contact support@leostream.com.

Features

- Component updates:
 - Leostream Connect 3.8.6 for Windows includes newly signed USB drivers, to mitigate warnings when installing on certain Windows 10 operating systems.
 - Leostream Agent 6.3.11 correctly reports the fully qualified domain name for users who are members of subdomains. This version of the Leostream Agent also includes newly signed USB drivers.

Note: This version of the Leostream Agent can no longer be used to execute PowerShell scripts. If you are using the Leostream Agent to integrate with Microsoft Hyper-V, Citrix XenDesktop, or with a Windows Deployment Server, do not upgrade to version 6.3.11.
 - Leostream Agent version 4.3.16 for Linux and macOS contains updates for monitoring idle time for domain users logging into Linux machines.
- The Connection Broker OpenSSL library has been upgraded to version 1.0.2o. The Connection Broker, therefore, must recompile during an upgrade. The upgrade is complete only after the Connection Broker reboots.
- The > **System** > **Settings** page includes a new option that allows you to increase the timeout used for calls to the Leostream Agent.
- Amazon Web Services centers add support for two regions in China.
- The main Administrator role now allows you to indicate if the administrator logs into their offered desktops as a domain or local user
- A new option on the > **System** > **Settings** page allows you to make calls to Leostream Agents mutually exclusive. Checking the **Sequence Leostream Agent calls to increase reliability** option slows down center scans, but can improve Leostream Agent reachability under certain network conditions.

Resolved Issues

- The rules in the > **Users** > **Assignments** table now support double byte characters.
- Desktops provisioned in AWS are now more reliably joined to Active Directory domains, when requested by their pool membership.
- Hostname are no longer improperly updated when the Leostream Agent registers an address change.
- Local usernames are no longer case sensitive.
- A desktop's power status no longer remains in the Rebooting state if the Connection Broker is unable to reboot the desktop using the Leostream Agent.
- Power control plans set to reboot the desktop after logout now properly execute when invoked by a Release plan that logs out and releases the user when they disconnect.

Database Changes

Version 8.2.63 adds new fields to the `general_config` and `vm` tables in the Connection Broker database, when compared to the database schema in Connection Broker 8.2.52.

Connection Broker 8.2.52 – Release Notes

Connection Broker 8.2.52 is a minor update to 8.2.37 and provides the following functionality and issue resolutions. Please, consult the release notes for previous versions for additional features and fixes that may be available in this release, relative to your current Connection Broker version.

Important Note

As of 8.2.37, the Connection Broker uses Keystone Identity API v3 to integrate with OpenStack centers. OpenStack deployments requiring Keystone Identify API v2 are no longer supported.

Component Updates

Connection Broker 8.2.52 includes the following updated versions of Leostream Connect and Leostream Agents. These components include updated USB drivers, with native support for Windows 10 and Linux kernels up to 4.5. In addition, these components include the enhancements listed below.

- Leostream Agent for Windows – version 6.3.5
 - **Important Upgrade Considerations:** This version of the Leostream Agent can no longer be used to execute PowerShell scripts. If you are using the Leostream Agent to integrate with Microsoft Hyper-V, Citrix XenDesktop, or with a Windows Deployment Server, do not upgrade to version 6.3.5.

Leostream Agent 6.3.5 also no longer supports Connection Broker Display Plans. When upgrading to version 6.3.5, use your display protocol's native multi-monitor support.
 - The Credential Provider for Windows 10 now allows users to reset expired passwords.
 - The dialog that lists USB devices now correctly identifies devices that used to be displayed with empty names.
- Leostream Connect for Windows – version 3.8.5
 - Supports the 64-bit version of the HP RGS Receiver 7.4.
 - The Credential Provider for Windows 10 now allows users to reset expired passwords.
 - Enhances launching VNC sessions, and adds support for TigerVNC viewer.
- Leostream Agent for Linux and macOS – version 4.3.12
 - Monitors sessions for HP RGS version 7.4.

- Monitors sessions for Mechdyne TGX version 1.8.
- Enhances support for monitoring VNC sessions, including retaining the users SSH session when they close their VNC session.
- Supports single sign-on to PCoIP sessions for domain users, and improves SSO for CentOS 7.3.
- No longer sends login or logout notifications for SSH sessions.
- Leostream Connect for Linux and macOS – version 3.4.3
 - Resolves issue launching Leostream Connect on certain macOS versions.
 - Updates list of supported Microsoft Windows operating systems for remote connections.

Features

- The Connection Broker OpenSSL library has been upgraded to version 1.0.2m. The Connection Broker, therefore, must recompile during an upgrade. The upgrade is complete only after the Connection Broker reboots.
- Provisioning enhancements:
 - Changes the provisioning threshold in pools to check for unassigned, instead of available, desktops.
 - Allows newly provisioned desktops to be marked as Unavailable, to prevent the Connection Broker from immediately offering newly provisioned desktops.
 - Tags are now applied to desktops when they are provisioned into a Center with **Continuously apply any Auto-Tags** selected, without requiring a center refresh.
 - When provisioning into Amazon Web Services, the EBS Volume is now tagged with the name of its associated EC2 instance.
 - A new dynamic tag specifies the minimum and maximum values for the sequence number used in the name of newly provisioned virtual machines.
- Provides a new option on the Web client to filter the list of offered desktops based on pool.
- Includes the Leostream Agent port in the check that determines if a Remote Desktop Services/Multi-User Center is online.

- Improvements for working with VNC sessions:
 - Allows blank configuration files for VNC connections, to support VNC clients that do not accept configuration files as input parameters.
 - Provides a new Protocol Plan parameter to specify an alternative port to check, to support connecting to servers that do not yet have a running VNC session.

Resolved Issues

- Resolved issues where provisioning could fail in vSphere 6.5, with a `deserialize` error.
- Retain client-binding information after one of the bound PCoIP Zero Clients obtains a new IP address.
- Resolves an issue where the Connection Broker wouldn't restart after a hostname change.
- Resolves issues related to uploaded third-party SSL certificates.

Connection Broker 8.2.37 – Release Notes

Connection Broker 8.2.37 is a minor update to 8.2.33, and provides the following new functionality. Please, consult the release notes for previous versions for additional features and fixes that may be available in this release, relative to your current Connection Broker version.

Important Note

The Connection Broker now uses the Keystone Identity API v3 to integrate with OpenStack centers. OpenStack releases that use the Keystone Identify API v2 are no longer supported.

Features

- Leostream Agent for Linux version 4.2.14 is now available, with improved session handling for VNC and full support for Ubuntu 16.04
- **OpenStack:** The network for provisioned OpenStack instances is now specified in the pool, instead of in the OpenStack center, providing support for projects with multiple networks
- **Microsoft Azure:** You can now specify the operating system disk size when provisioning new Microsoft Azure virtual machines
- **SSL certificates:** The new **Install new SSL private key, certificate, or intermediate certificate** option can now be used to install third-party certificates in the Connection Broker, including wildcard certificates
- Columns on the > **Resources** > **Desktops** page can now be filtered to show only rows that have an empty value for that column

- The Connection Broker OpenSSL library has been upgraded to version 1.0.2l

Resolved Issues

- The Connection Broker now checks if virtual machines are manually deleted during the provisioning process and cleans up the desktop record and any related jobs
- SSL certificates and CSRs generated by the Connection Broker now support Subject Alternative Name
- Searchable drop-down menus are no longer limited to the first 20 matches, and provide a scrollbar for long lists
- RADIUS authentication for Leostream Connect logins has been restored
- Newly provisioned linked clones are now immediately inventoried in their VMware Center instead of appearing in the Uncategorized Desktops center

Connection Broker 8.2.33 – Release Notes

Connection Broker 8.2.33 is a minor update to 8.2.27, and provides the following new functionality. Please, consult the release notes for previous versions for additional features and fixes that may be available in this release, relative to your current Connection Broker version.

Important Note

Connection Broker 8.2 uses version 5.5 of the VMware SDK. Version 5.5 of the VMware SDK does not support the `VirtualPCIPassthroughVmiopBackingInfo` class used by vSphere 6.5 for features related to Nvidia cards and GPU passthrough. Therefore, your Leostream centers for vSphere 6.5 appear offline if you use these features. Please, contact support@leostream.com if you require access to the Connection Broker 9.0 beta, which includes version 6.5 of the VMware SDK.

Features

1. **Components:** The following new Leostream Agents are available:
 - Leostream Agent for Windows – version 6.2.12 – The Leostream Agent now retrieves host card information from version 4.3.1 of the PCoIP Host Software for Windows
 - Leostream Agent for Linux and Mac – version 4.2.11 – The Leostream Agent can now shut down and reboot Mac desktops
2. **Linked Clones:** Leostream pools can now provision linked clones from virtual machine snapshots

3. **vMotion:** VMware centers now allow you to specify the maximum number of running virtual machines on each host, indicating to the Connection Broker if it should vMotion stopped virtual machines to a new host before powering them on
4. **Pools:**
 - Pools can now be created from individual hosts managed by vCenter Server
 - The new **Automatically vMotion stopped VMs to new host, if needed** option indicates if the Connection Broker should automatically vMotion stopped virtual machines between hosts in a pool, based on the running machine limit set in the center
 - A new **Associate all user notifications with assigned user** option indicates that the Connection Broker should treat any user event notification received from the Leostream Agent as if the assigned user took the action (note, does not currently apply to idle-time actions)

Resolved Issues

5. Policy rules for USB passthrough are now applied to both the master and slave PCoIP Zero clients in a trunked client configuration
6. The Exceed onDemand password encryption tool has been updated to the 64-bit version
7. The **Notification URL** field in the **Provisioning Parameters** in pools now supports strings longer than 100 characters
8. Pools and desktops now standardize on **macOS** for Mac desktops, to support creating pools of Mac desktops.
9. Rebooting a desktop now triggers logoff notifications even in cases where the Leostream Agent is unable to notify the Connection Broker of the logoff

Database Changes

Version 8.2.33 adds new fields to the `pool` table in the Connection Broker database, when compared to the database schema in Connection Broker 8.2.27.

Connection Broker 8.2.27 – Release Notes

Connection Broker 8.2.27 is a minor update to 8.2.17, and provides the following new functionality.

10. **Components:** The Leostream Agents and Leostream Connect clients are included:
 - Leostream Connect for Windows – version 3.7.8
 - Leostream Agent for Windows – version 6.2.9
 - Leostream Connect for Linux and Mac – version 3.3.7
 - Leostream Agent for Linux and Mac – version 4.2.6
11. **VMware:** Resource centers can now be created for VMware vSphere 6.5 and vCenter Server 6.5 (see [Important Note](#))
12. **HP RGS:**
 - Leostream Gateway version 1.11 now supports HP RGS connections
 - Connection Broker protocol plans for HP RGS connections launched from a Web browser allow you to select the Leostream Gateway to use for the connection
13. **Teradici PCoIP:**
 - Leostream Connect clients can now establish connections to remote workstations with an installed PCoIP Remote Workstation Card using the PCoIP software client
 - PCoIP Software and Zero clients communicating with the Connection Broker now support RADIUS two-factor authentication
 - New {PCOIP_HOST1} and {PCOIP_HOST2} dynamic tags can be used in protocol plans to specify the IP address of the Teradici Remote Workstation Card
14. **Apple Mac OSX support (beta):** The Java version of the Leostream Agent now installs on Apple Mac OSX desktops, providing information about user logins and logouts
15. **Web Client:** The Leostream Web client now displays resource type and assignment status when using the list view
16. **Roles:** The **View** action on the > **Resources** > **Desktops** page now has an independent permission in user roles.
17. The Connection Broker now distinguishes between Windows 8 and Windows 8.1 operating systems for clients, desktops, and when creating pools
18. The > **Resources** > **Desktops** page has a new **Number of Disks** column that displays the number of disks on the desktop, as reported by the installed Leostream Agent
19. Improvements have been made to locating users whose primary Active Directory group is

something other than Domain Users when loading users from groups using the **Load users** action on the > **Users > Authentication Servers** page

Version 8.2.27 adds new fields to the following tables, when compared to Connection Broker version 8.2.17.

- log
- maintenance

Connection Broker 8.2.17 – Release Notes

Connection Broker 8.2.17 is a minor update to 8.2.15, which resolves issues related to reconnecting PCoIP Zero clients that use PCoIP Connection Management mode to their assigned desktops. This release also provides the following new functionality.

20. Support for additional Microsoft Azure regions
21. A new policy option to offer desktops in a pool based on the desktop's age

Connection Broker 8.2.15 – Release Notes

Connection Broker 8.2.15 introduces a following functionality to the Leostream software suite.

Important Notes

Connection Broker 8.2 no longer supports the following functionality. Do not update to Connection Broker 8.2 if you utilize any of the following:

- Protocol plans for Leostream Connect that use Ericom Blaze, Famatech Radmin, or Oracle Sun Ray display protocols
- Protocol Plans for the Web client that use ActiveX RDP connections
- Protocol plans that use the **Allow connections through NAT'd VPNs** option
- Novell eDirectory authentication servers
- 1E Wakeup for powering on physical machines
- The > **System** > **Settings** page option to provide unauthenticated URL access to the Connection Broker logs

Features

- The Leostream Components have been updated to the following versions:
 - Leostream Agent for Windows – 6.2
 - Leostream Agent for Linux – 4.2
 - Leostream Connect for Windows – 3.7
 - Leostream Connect for Linux – 3.3
- The new Leostream Gateway provides clientless HTML5 RDP access to remote desktops, as well as a proxy solution for Microsoft RDP connections, allowing you to isolate desktops hosted on a public or OpenStack cloud in private networks and connect using Leostream (see the [Leostream Gateway Guide](#) for more information)
- New Microsoft Azure centers allow you to manage capacity and connections to a VDI environment hosted in Microsoft Azure clouds (see the [Quick Start guide for using Leostream to manage VDI in Microsoft Azure clouds](#))
- Support for VDI in Amazon Web Services (AWS) has been enhanced to provide the following:
 - You can now specify the security group for provisioned instances

- You can use your personal private AMIs, as well as private AMIs that have been shared with your account, for provisioning in AWS
- A proxy server can now be specified for AWS centers
- The Connection Broker OpenSSL library has been upgraded to version 1.0.2j

Note: The Connection Broker must recompile to upgrade OpenSSL, resulting in upgrade times of up to an hour. The upgrade is finished only after the Connection Broker reboots.
- The following enhancements have been made to the Leostream support for HP Remote Graphics Software (RGS):
 - HP RGS connections can now be launched from the Leostream Web client
 - Users can now send and receive invitations to collaborate on RGS sessions, when logging in at the Leostream Web client or Windows version of Leostream Connect.
 - The Java version of Leostream Connect supports the new HP RGS Receiver for Mac
 - The Setup mode key sequence is now available as a user-configurable parameter
- New user assignment reports on the > **Status > Reports** page provide in depth information on how long users were assigned, connected, and logged into each desktop, and can be downloaded as a CSV-file for additional analysis
- Virtual machines hosted in VMware, AWS, Azure, and OpenStack centers can now be deleted from disk using new options in the Connection Broker
 - Release plans can schedule VM deletion when the desktop assignment is released
 - The > **Resources > Desktops** page provides a new option to manually delete virtual machines
- The > **Resources > Pools** page can now be displayed as a flat list by clicking the **View as List** link at the top of the page
- New dynamic tags for public and private IP addresses can be used in protocol plans for desktop hosted in OpenStack, AWS, and Azure
- The > **Users** page includes a new column to display the user's current desktop
- The > **System > XML API** page has been redesigned to provide easier access to the API test functionality, documentation, and database schema
- The > **System > Cluster Management** page now links to each Connection Broker in the cluster, making it easy to navigate to different Connection Brokers

- Pools defined by desktop attributes can now use tags and centers as additional attributes

Resolved Issues

If upgrading from a Connection Broker version older than 8.1.93, please consult the release notes for individual 8.1 releases issues resolved prior to 8.1.93

- Improvements for hardware-based PCoIP environments:
 - For PCoIP zero clients using the PCoIP Connection Manager mode, the Connection Broker no longer over writes the client name after the client is first imported
 - A trunked PCoIP zero client is no longer disconnected from its host when the primary PCoIP zero client is disconnected from a different host
 - PCoIP zero clients using the PCoIP Connection Manager mode can now use the **Direct connect client to desktop** option when hard-assigned to a desktop
- Results for a test login now correctly show a user's offered desktop when their role provides access to the Leostream Web client and Administrator Web interface
- When loading users from Active Directory groups, the **Load User** form now navigates into nested groups
- General improvements to tracking idle time for release plans

Database Changes

Version 8.2.15 adds the `gateway_forward` table to the Connection Broker database. In addition, new fields were added to the following tables, when compared to Connection Broker version 8.1.93

- `plan_protocol`
- `vm`

Leostream Connect for Microsoft® Windows® Operating Systems – Version 3.7

- Users with an appropriate role and policy can now send and receive invitations to collaborate on NoMachine and RGS sessions
- Leostream Connect now officially supports Windows 10, including client-side single sign-on
- OpenSSL library has been upgraded to 1.0.2f

Leostream Connect for Linux[®] Operating Systems – Version 3.3

- **Important note:** The Java version of Leostream Connect no longer supports the feature to manage another user's session. Please contact support@leostream.com if you require this feature.
- Leostream Connect can now launch RGS sessions using the HP RGS receiver on Mac

Leostream Agent for Microsoft[®] Windows[®] Operating Systems – Version 6.2

- **Important note:** The Leostream Agent can no longer be used to manage older versions of Citrix XenApp servers. Connection Broker communicates with the XenApp server over the Citrix XML RPC port. Please contact support@leostream.com if you require this feature.
- Use metadata to obtain instance information in AWS and OpenStack, including the instance's public and private IP address
- Report installed display protocols and their version to the Connection Broker
- Upgrade openssl library to 1.0.2f
- Communication with the Connection Broker uses TLSv1.2, only
- Properly support Windows 10, including single sign-on.
- Idle time settings are now set appropriately regardless of if the user logs in with a NetBIOS name or fully qualified domain name

Leostream Agent for Linux[®] Operating Systems – Version 4.2

- New `leostreamagent.conf` parameters specify location of display protocol servers.
- Turn on diagnostic logging, by default
- Report installed display protocols and their version to the Connection Broker
- Improved support for NICE DCV and Mechdyne TGX
- Communication with the Connection Broker uses TLSv1.2, only
- Improved reachability by the Connection Broker by prioritizing non-DH cipher suites

Connection Broker 8.1.93 – Release Notes

Connection Broker 8.1.93 is a maintenance release for previous versions of Connection Broker 8.1. Connection Broker 8.1.93 resolves the following issues, with respect to version 8.1.90.

- Upgraded OpenSSL library to version 1.0.1u
Note: The Connection Broker must recompile to upgrade OpenSSL, resulting in upgrade times of up to an hour. The upgrade is finished only after the Connection Broker reboots.
- The order of the default cipher suites used for Leostream Agent communications has been reordered, to alleviate unreachable Leostream Agents resulting from failed SSL negotiations
- Resolved issues related to switching back to the primary database after a SQL Server database mirror switch
- Virtual machines that Leostream provisions into a VMware Resource Pools now register their resource pool membership, allowing new VMs to be correctly inventoried in Leostream pools defined by VMware Resource Pools
- The **Check for updates** option on the > **System** > **Maintenance** page can again contact the Leostream website to check for Connection Broker updates.

Connection Broker 8.1.90 – Release Notes

Connection Broker 8.1.90 is a maintenance release for previous versions of Connection Broker 8.1. Connection Broker 8.1.90 resolves the following issues, with respect to version 8.1.88.

- The Connection Broker can now connect to external PostgreSQL databases with any user name, instead of only with the default postgres user
- The Connection Broker no longer throttles calls to the Leostream API
- Leostream now monitors the status checks for instances powered on in AWS, to ensure that the power state displayed in the Connection Broker does not switch to Running before the status checks are complete
- The **Instance type** drop-down menu in pools contains additional options when provisioning instances in AWS
- The **Connected to Client** and **Connected** columns on the > **Resources > Desktops** page are now accurately kept up to date for roaming sessions
- Improvements to monitoring the reachability of the 5.6 version of the Leostream Agent

Connection Broker 8.1.88 – Release Notes

Connection Broker 8.1.88 is a maintenance release for previous versions of Connection Broker 8.1. Connection Broker 8.1.88 resolves the following issues, with respect to version 8.1.84.

- The Java version of the Leostream Agent has been upgraded to version 4.0.82, which contains a fix that ensure that PostLogin functions are run when using the Leostream single sign-on feature.
- The Connection Broker 8.1.88 update file resolves issues related to upgrading Connection Broker 7.8
- Desktops that are hard-assigned to clients no longer follow their assigned users to different client devices
- External PostgreSQL databases version 8.x are now supported
- Desktops running Windows 10 and Windows Server 2016 are now correctly categorized and can be used to create pools and locations
- Refresh scans of the PCoIP Host Devices center now always retain the information about any connection PCoIP zero clients

Connection Broker 8.1.84 – Release Notes

Connection Broker 8.1.84 is a maintenance release for previous versions of Connection Broker 8.1. Connection Broker 8.1.84 resolves the following issues, with respect to version 8.1.70.

- OpenSSL has been upgraded to version 1.0.1t – note that upgrading the OpenSSL library requires the Connection Broker to recompile, resulting in upgrade times of up to an hour
- The Java version of the Leostream Agent now reports non-root users who use SSH to log into workstation with a PCoIP Remote Workstation Card, if no other display protocols are installed on the workstation
- The Connection Broker remaps the **Logged in User** field back to the initial user, if another user logged in and then out using SSH while the initial user remained logged in
- The **Connected to Client** field on the > **Resources > Desktops** page is no longer cleared out when hard-assigned PCoIP connections are released, but not disconnected
- Users are now released when they log out of a desktop that is hard assigned to a client
- Intermediate SSL certificates are now supported when using the **Download SSL credentials for installation on another Connection Broker** and **Install SSL credentials from another Connection Broker** options to share SSL certificates between Connection Brokers
- Users are now correctly identified as rogue, if they log into a desktop that was previously released by the **Release if user does not log in** option in Release Plans
- Users can now be loaded from Microsoft Active Directory authentication servers containing groups with names that begin with special characters
- Desktop attributes for desktops that do not have the **Allow changes to these desktop attributes** option selected no longer update based on Leostream Agent notifications
- Local users can now be used to log into desktops running the VMware Horizon View Direct Connection Plug-in
- Disconnect notifications from PCoIP host card are no longer ignored when disconnecting from PCoIP zero client that use the PCoIP Connection Manager session connection type
- The started machine threshold is now correctly calculated when using the **Number of available, running desktops in the pool** option in pools
- AWS EC2 API calls are now throttled to ensure that no calls are rejected by AWS

Connection Broker 8.1.70 – Release Notes

Connection Broker 8.1.70 is a maintenance release for previous versions of Connection Broker 8.1. Connection Broker 8.1.70 resolves the following issues, with respect to version 8.1.67.

- The Leostream Agent for Windows operating system has been updated to version 6.0.100, to address an issue redirecting printers for roaming RDP sessions
- The > **Resources** > **PCoIP Host Devices** page now includes the full firmware version (requires a refresh of the PCoIP Devices center)
- The **Reset** option is no longer displayed for PCoIP zero clients running firmware version 5.x, which does not provide Leostream with a method for resetting the client
- Downloaded Leostream Technical Support logs are now limited to 25MB
- Desktops offered from a backup pool now use the correct backup pool protocol plan
- The Connection Broker now traps cases where two users attempt to connect to the same desktop at nearly the same time , and ensures only one user connection is established

Connection Broker 8.1.67 – Release Notes

Connection Broker 8.1.67 is a maintenance release for previous versions of Connection Broker 8.1. Connection Broker 8.1.67 adds the following functionality and resolves the following issues, with respect to version 8.1.57.

Important Note

This version of the Connection Broker no longer supports the following functionality.

- Protocol plans using the **Sun Global Desktop** option
- Countdown timers for VMware vSphere centers

Features

- **Leostream Components:** The > **Status** > **Downloads** page on this version of the Connection Broker includes the following component versions:
 - Leostream Agent for Windows operating systems – 6.0.99
 - Leostream Connect for Windows operating systems – 3.5.55
 - Leostream Agent for Linux operating systems – 4.0.81
 - Leostream Connect for Linux operating systems – 3.1.57
- New versions of Leostream Connect and the Leostream Agents can be uploaded into the Connection Broker using options on the > **System** > **Maintenance** page

- **OpenSSL:** OpenSSL has been upgraded to version 1.0.1s – note that upgrading the OpenSSL library requires the Connection Broker to recompile, resulting in longer upgrade times
- **Mechdyne teleGraphix:** Protocol plans provide a new option to use the high-performance Mechdyne teleGraphix (TGX) protocol to connect to Linux machines, including allowing users to configure certain protocol plan configuration parameters
Requires Leostream Agent 4.1.151 for Linux operating systems. Connections can be launched from the Leostream Web client, or using Leostream Connect 3.6.62 for Windows. New Leostream Agents and Leostream Connect versions can be found on the [Leostream Product Downloads](#) page.



Your Connection Broker must run on a 64-bit operating system to use the TGX protocol. If your Connection Broker was built using a Connection Broker 8.0 or older appliance, you must install new Connection Broker 8.1 appliances.

- **NICE DCV:** Protocol plans provide a new option to use the high-performance NICE Desktop Cloud Visualization (DCV) protocol

Requires Leostream Agent 4.1.151 for Linux operating systems. Connections can be launched from the Leostream Web client, or using Leostream Connect 3.6.62 for Windows. New Leostream Agents and Leostream Connect versions can be found on the [Leostream Product Downloads](#) page.
- **Amazon Web Services:** Added support for Asia Pacific (Seoul) region

Resolved Issues

- Pools provisioning into an OpenStack center now correctly save flavors that are referenced by UUIDs, instead of by integers
- Backup pools now indicate when they reference a pool that has been deleted, and the backup pool logic is no longer followed for deleted pools
- Leostream Agent disconnect and connect notices now accurately track the client ID when open sessions are moved between clients
- The deletable setting for desktops inventoried from an Amazon Web Services center can now be modified in the **Edit Desktop** page.
- If the Connection Broker cannot reboot a physical machine using the Leostream Agent, Leostream no longer powers down the physical machine, placing the machine into a stopped state

- Resolved issues with managing duplicate desktop records when users are assigned and logged into the desktops
- When editing a desktop, the name and PCoIP host devices are now read-only fields when the Role is set to **View only**
- The Connection Broker now cancels CPU threshold monitoring after receiving a notice from the Leostream Agent that the session is no longer idle
- The Connection Broker no longer clears out the user's role after they subsequently log in as a rogue user, to avoid errors for users with Role permissions that provide access to the Administrator Web interface
- Resolved PowerShell issues related to adding and removing users from a Shared Citrix XenDesktop 7 Deliver Group

Database Changes

Version 8.1.67 adds new fields to the `plan_protocol` table in the Connection Broker database, when compared to Connection Broker version 8.1.57.

Connection Broker 8.1.57 – Release Notes

Connection Broker 8.1.57 is a maintenance release for previous versions of Connection Broker 8.1. Connection Broker 8.1.57 adds the following functionality and resolves the following issues, with respect to version 8.1.44.

Connection Broker Appliance Notes

The new Connection Broker 8.1 appliances use a 64-bit CentOS 6.7 operating system.

- Connection Broker 8.1.57 is available as a new virtual appliance for VMware vSphere and Workstation. You must install the new virtual appliance if you plan to use NIS authentication Servers with Leostream.
- Connection Broker 8.1.57 is available as an RPM file that can be installed on a 64-bit CentOS 6.7 minimal operating system. Use the RPM-file to install Leostream into any virtualization platform or onto a physical workstation.
- Connection Broker virtual appliances are no longer created especially for installation on Citrix XenServer, Microsoft Hyper-V, or Red Hat Enterprise Virtualization platforms. Use either the OVA-file or RPM-file to install Leostream onto any of these platforms.

Important Note

The new Connection Broker appliances resolve the issue where Connection Brokers installed on a CentOS 6.x operating system failed to connect to NIS authentication servers. If you installed the Connection Broker 8.0 virtual appliance, you must install a new Connection Broker 8.1 appliance to connect to a NIS authentication server.

After you install Connection Broker and connect it to your NIS authentication server, edit and save the authentication server to start the `yppbind` process needed to connect to the NIS server.

Features

- Leostream Connect for Windows operating systems has been updated to version 3.5.55, and includes the following:
 - Do not close existing desktop connections when additional users log into Leostream Connect and multi-user mode is enabled
 - When upgrading previous versions of Leostream Connect, the installer now properly renames registry keys that point to the Connection Broker address
- Leostream Agent for Windows operating systems has been updated to version 6.0.91, and includes the following:
 - Improvements to feature for joining desktops to a domain
 - When upgrading older Leostream Agents, version 6.0.92 now ensure that the Leostream Desktops service is always installed, enabling idle-time monitoring and other end-user experience features
- The **Logged in User** column on the **> Resources > Desktops** page now shows the username and, if applicable, domain of any user that is currently logged into the desktop (requires the Leostream Agent be running on the desktop)
- The **> System > Maintenance** page now the version and architecture of the underlying appliance operating system.
- Added option to wait for five, six, or seven day before executing idle-time monitoring actions in Release Plans.
- The TLSv1.2 SSL protocol is now always enabled on the **> System > Maintenance** page.

Resolved Issues

- Addressed issues where hard-assignments could be lost after a desktop registered as a duplicate of the hard-assigned desktops
- Addressed issue where the **Release if user does not log in** action in Release plans was not executing correctly
- Ensure that deleted work queue jobs are removed from the database
- Log off and release actions now break both PCoIP connections when multiple host cards are present on the workstation
- Addressed timing issues that could cause Leostream Agents to be marked Unreachable

Connection Broker 8.1.44 – Release Notes

Connection Broker 8.1.44 is a maintenance release for previous versions of Connection Broker 8.1. Older versions of the Connection Broker should be updated to version 8.1. Bug fix updates for the Connection Broker 8.0 branch can be requested until version 8.0 reaches its end-of-life on August 31, 2016.

For a list of major features in Connection Broker 8.1, please see [Connection Broker 8.1.15 – Release Notes](#).

Connection Broker 8.1.44 adds the following functionality and resolves the following issues, with respect to version 8.1.35.

- The Leostream components have been upgrade to the following versions. As of Connection Broker 8.1.43, older versions of the clients and agents begin their end-of-life cycle. For a description of which clients and agents can be used with different Connection Broker versions, please see [Appendix A: Version Compatibility](#).
 - Leostream Connect for Windows operating systems - version 3.5.50
 - Leostream Agent for Windows operating systems – version 6.0.88
 - Leostream Connect for Linux operating systems – version 3.1.48
 - Leostream Agent for Linux operating systems – version 4.0.81

For information about how these Leostream Agent and Leostream Connect versions work with older Connection Broker versions, see [Appendix A: Version Compatibility](#).

- When powering on a desktop with an installed PCoIP Agent, the Connection Broker now waits for the PCoIP Agent port (60443) to open before trying to establish the connection
- Various improvements to the Citrix XenDesktop 7.6 integration, including no longer keeping desktops in Maintenance Mode in a Machine Catalog after the desktop is released

- Desktops from OpenStack and AWS centers now register both their internal (private) and external (floating/public) IP addresses
- When provisioning new instances in OpenStack, you can now instruct the Connection Broker to allocate and associate a floating IP address with the instance
- Provisioning in vSphere now succeeds even if the customization file contains illegal characters
- The **When User Logs Out** section of release plans no longer executes for users who disconnect from their desktop without ever logging in

Connection Broker 8.1.35 – Release Notes

Connection Broker 8.1.23 is a maintenance release for Connection Broker 8.1. This release contains all features an issue resolutions in Connection Broker 8.0, plus the following items when compared to Connection Broker version 8.1.23.

Features

- The Leostream components have been upgrade to the following versions.
 - Leostream Connect for Windows operating systems - version 3.5.45
 - Leostream Agent for Windows operating systems – version 6.0.81
 - Leostream Connect for Linux operating systems – version 3.1.48 – Supports the new Connection Broker option to refresh the user’s offer list automatically, when the user opens their offer list.
 - Leostream Agent for Linux operating systems – version 4.0.72
- Connection Broker 8.1.43 can be used to manage connections to virtual workspace using the Teradici Pervasive Computing Platform.
- The **Edit Pool** page contains new options to join desktops in that pool to an Active Directory domain (see “Joining Pooled Desktops to a Domain” in Chapter 7 of the [Connection Broker Administrator’s Guide](#))
- The drop-down menus shown as column headers for tag groups on the **> Resources > Desktops** page now allows you to filter the list based on tags defined in that group
- Prompt users to re-enroll their HID proximity card if the Active Directory password associated with that card is invalid
- You can now use a `host:port` syntax to specify the SNMP port to use for all SNMP servers used by the Connection Broker
- Pools can now be created using the operating system version

- The > **Resources** > **Desktops** page can now be filtered using the **OS Version** column
- The columns associated with tags on the > **Resources** > **Desktops** page can now be filtered using the tag name, instead of using an alphanumeric character
- The new **Refresh offer list before display to user** option in the **Leostream Connect Configuration** section of the > **System** > **Settings** page instructs the client to perform an automatic refresh when the user opens their offer list, ensuring that any desktops that are no longer available are removed from the list
- The Connection Broker virtual appliance console provides a new option in the **Power** menu to check the Connection Broker status (see the [Connection Broker Virtual Appliance Guide](#))
- OpenSSL has been upgrade to version 1.0.1p – note that upgrading the OpenSSL library requires the Connection Broker to recompile, resulting in longer upgrade times

Resolved Issues

- The Connection Broker now tries to connect to an Active Directory center twice, with a two minute delay in between tries, before marking the center as offline
- Desktops inventoried from an AWS center now always prefer the hostname reported by the Leostream Agent over the hostname set in the AWS console
- Desktops inventoried from an AWS center now report their MAC address, enabling the Connection Broker to associate desktops in AWS with any Leostream Agent that registers from that desktop
- Desktops inventoried from an AWS or Moonshot center now take precedence over desktops inventoried from an Active Directory center when determining duplicate desktop records
- The **User name** column on the > **Resources** > **Desktops** page has been renamed to **Assigned user**
- Resolved issues causing new desktops to be inventoried with Unreachable Leostream Agents
- The **Clients** page now removes desktops from the **Connected Desktops** column if that desktop is removed from the Connection Broker.
- The Connection Broker now logs a diagnostic entry when pool counts do not total correctly, instead of reporting an internal error

Connection Broker 8.1.23 – Release Notes

Connection Broker 8.1.23 is a maintenance release for Connection Broker 8.1. This release resolves the following issues when compared to Connection Broker version 8.1.22.

- Added support for alphanumeric tokens when using RADIUS authentication.
- Resolved issue where a Leostream Agent logout notification may not correctly disconnect a PCoIP Remote Workstation Card from the PCoIP zero client.
- Updated the Leostream Agent for Microsoft Windows operating systems to version 6.0.47, to resolve an issue with single sign-on for PCoIP sessions.

Connection Broker 8.1.22 – Release Notes

Connection Broker 8.1.22 is a maintenance release for Connection Broker 8.1. This release resolves the following issues when compared to Connection Broker version 8.1.19.

- Updated OpenSSL to version 1.0.1o.
- The 8.1.22 update file correctly updates external Microsoft SQL Server databases attached to a Connection Broker.
- Implemented performance enhancements related to the feature to assign policies based on nested Active Directory groups. The introduction of that feature significantly slowed down user logins in certain environments.
- Resolved issues refreshing centers for Citrix XenServer 6.5.
- Improved reporting for the **Last Connect Time** and other columns related to tracking the users session on the > **Resources > Desktops** page for sessions offered from a multi-user center.
- Resolved issue when trying to customize the contents of the > **Resources > Desktops** page when a second PCoIP Host Device was included on the page.
- Resolved an issue where requesting a reboot of a physical desktop could allow simultaneous reboots.
- Added 6 months as an option for filtering the **Signed in** column on the > **Users > Users** page.

Leostream Connect for Microsoft® Windows® Operating Systems – Version 3.5.30

Important Note: Leostream Connect version 3.5 for Windows operating systems no longer supports installation on Microsoft Windows XP operating systems.

- The Connection Broker address can now be configured during Leostream Connect installation
- Multiple users can now log into the same Leostream Connect session
- Added support for logins using RADIUS tokens and RSA SecurID
- Added support for ThinLinc TigerVNC client
- Added support for latest SPICE client
- Double clicking on LeostreamConnect.exe without specifying username and password, while an instance of LSC is already running, now invokes the default System tray menu option.
- Upgraded OpenSSL to version 1.0.2a
- Removed dependency on Microsoft Visual C run-time library

Leostream Connect for Linux® Operating Systems – Version 3.1.44

- Added support for logins using RADIUS tokens and RSA SecurID
- Renamed the `lc.conf` parameter `TraceLevel` to `trace_level`
- Subsequent Leostream Connect versions can be upgraded using the Connection Broker option to push Leostream Connect updates out to client devices.
- The **Resources** dialog now contains a **Refresh** button that can be used to refresh the user's list of offered desktops

Leostream Agent for Microsoft® Windows® Operating Systems – Version 6.0.43

Important Notes Leostream Agent version 6.0 for Windows operating systems no longer supports installation on Microsoft Windows XP operating systems.

- The Connection Broker address can now be configured during Leostream Agent installation
- A new trust mechanism has been implemented between the Leostream Agent and Connection Broker, to ensure that the Leostream Agent ignores calls that do not originate from a Leostream Connection Broker.



Leostream Agent 6.0 can only be used with Connection Broker 8.1, or later.

- The **Desktop Experience** installation option is no longer listed during installation. This component is now always installed.
- Upgraded OpenSSL to version 1.0.2a

Leostream Agent for Linux[®] Operating Systems – Version 4.0.38

- A new trust mechanism has been implemented between the Leostream Agent and Connection Broker, to ensure that the Leostream Agent ignores calls that do not originate from a Leostream Connection Broker



Leostream Agent 4.0 can only be used with Connection Broker 8.1, or later.

- Monitoring of NoMachine NX4 sessions has been improved.
- The following `leostreamagent.conf` parameters have changed or been added.
 - `registered_brokers` contains a list of all Leostream Connection Brokers that have registered for notifications from this Leostream Agent.
 - `ssl_ciphers` contains a comma separated list of SSL ciphers that the Leostream Agent will use for Connection Broker communications
 - `TraceLevel` has been renamed to `trace_level`
 - `AgentServerPort` has been renamed to `agent_port`

Connection Broker 8.1.19 – Release Notes

Connection Broker 8.1.19 is a maintenance release for Connection Broker 8.1. This release resolves the following issues when compared to Connection Broker version 8.1.15.

- All issue resolutions in **Connection Broker 8.0.77** are included in version 8.1.19.
- Policies can now be assigned to users in an Active Directory with nested groups.
- The Test Login results for a local user now display appropriate policy information.
- The **View** drop-down menu in the end-user Web client now correctly toggles between an icon and list view.
- The time zone now correctly resets when a standalone Connection Broker is rebooted using the vCenter Server console.
- Switching a Connection Broker back to its internal database removes it from the **> System > Cluster Management** page for the remaining Connection Brokers in the cluster. You can join the Connection Broker back to the cluster using its previously used Site ID, if desired.
- Leostream Connect 3.5.26 now supports a multi-user mode when the new Connection Broker general setting **Allow multiple logins using different credentials** is enabled.
- Connection Brokers 8.1.19 no longer requires a restart before performing an upgrade.

Important Note

If you are running a Connection Broker that was created from the Connection Broker 8.0 virtual appliance running on CentOS 6.6, you may experience difficulties upgrading to version 8.1.19. If the update file loads into the Connection Broker, but fails to update, please do the following steps.

1. Log into the Connection Broker virtual appliance console as the **leo** user (default password is **leo**.)
2. Select the **Power** menu from the main administrator menu.
3. Select **Restart** from the Power menu and confirm the restart.

After the Connection Broker restarts, reapply the Connection Broker update.

Connection Broker 8.1.15 – Release Notes

Connection Broker 8.1.15 is a minor release. This release introduces the following features and issue resolutions, when compared to Connection Broker 8.0.64.

Important Notes

- You can no longer use the > **System** > **Network** page to set the Connection Broker IP address or DNS settings. You must use the Connection Broker virtual appliance console to configure the Connection Broker network. See the “Network Options” section in Chapter 2 of the [Connection Broker Virtual Appliance Guide](#).
- The **Leostream Connect Configuration** section of the > **System** > **Settings** page no longer includes the **Allow user to modify user name** and **Allow user to modify domain name** options. Leostream Connect now always allows the user to modify those fields if they are displayed on the **Login** dialog.
- The Connection Broker no longer supports centers created for Citrix XenDesktop 4.x.

Features

- **Teradici PCoIP:** The Connection Broker can now manage connections to the Teradici Workstation Access Software using the PCoIP Connection Manager and PCoIP Broker Protocol. For more information, see the [Quick Start Guide using Leostream with Teradici Workstation Access Software](#).
- **RADIUS authentication:** You can now require that users enter a RADIUS token for the Connection Broker login (see “Enabling RADIUS Authentication” in Chapter 3 of the [Connection Broker Administrator’s Guide](#)).
- **XenDesktop 7:** You can now create centers for XenDesktop 7, and connect users to desktops in these centers using HDX (see the [Leostream Quick Start Guide with Citrix XenDesktop 7](#)).
- **Backup Pools:** Desktops that are hard-assigned to a user or client can now have a backup pool, which is used in cases where the hard-assigned desktop becomes unreachable (see “Specifying Backup Pools” in Chapter 11 of the [Connection Broker Administrator’s Guide](#)).
- **HPE Moonshot Systems:** The Connection Broker now uses the Chassis Manager RESTful API, instead of the command line interface, to manage HPE Moonshot System Centers.
- **Amazon Web Services:** You can now create a center that manages the instances in your Amazon Web Services account (see “Amazon Web Services Centers” in Chapter 5 of the [Connection Broker Administrator’s Guide](#)).
- **Pools:** You can now set a lower threshold on the number of available, running desktops in a pool, so the Connection Broker automatically starts new desktops as existing running desktops are assigned to users (see “Specifying Number of Running Desktops in a Pool” in Chapter 7 of the [Connection Broker Administrator’s Guide](#)).
- **SSL:** You can now upload an intermediate certification or CA bundle file when installing a

signed SSL certificate (see “Installing a Signed SSL Certificate or Intermediate Certificate” in Chapter 20 of the [Connection Broker Administrator’s Guide](#)).

- **PostgreSQL support:** The Connection Broker now supports PostgreSQL as an external database to use when building a Connection Broker cluster (see “Connecting to a PostgreSQL Database” in Chapter 20 of the [Connection Broker Administrator’s Guide](#)).
- **Roles:** Dedicated permissions were created in roles for the following pages. Previously, these pages were controlled by permissions associated with other Connection Broker pages (see “Chapter 9: Configuring User Roles and Permissions” in the [Connection Broker Administrator’s Guide](#)).
 - PCoIP Host Devices
 - Protocol Plans
 - Power Control Plans
 - Release Plans
 - Failover Plans
 - Registry Plans

Resolved Issues

- The **Name** field on the > **Users > Users** page is now updated for logins that occur after the attribute in the **Field that defines user display name** option in the user’s authentication server is changed.
- The **Edit Desktop** page and > **Resources > Desktops** page now load faster when the pages contain information about PCoIP Remote Workstation Cards.

Connection Broker 8.0.84 – Release Notes

Connection Broker 8.0.84 is a maintenance release for Connection Broker 8.0. This release resolves the following issues when compared to Connection Broker version 8.0.80.

- The Leostream components have been upgrade, as follows
 - Leostream Connect for Windows operating systems - version 3.0.187
 - Leostream Agent for Windows operating systems – version 5.6.159
 - Leostream Connect for Linux operating systems – version 3.1.45
 - Leostream Agent for Linux operating systems – version 3.1.108
- Resolved issues scanning centers created for VMware vSphere 6
- No longer change a desktops power status to stopped when the Leostream Agent on the desktop stops

- Resolved issues launching desktops from an HP SAM client when the Connection Broker uses the Leostream pool name to display the desktop to the user
- Improvements when releasing PCoIP sessions
 - Disconnect PCoIP sessions when the associated desktop is released
 - Disconnect PCoIP sessions when calling `VM.Release` on a hard-assigned desktop
 - Log failed attempts to disconnect a PCoIP session
- Added a **Status** option to the **Power** menu of the Connection Broker virtual appliance Administration Menu (see the [Connection Broker Virtual Appliance Guide](#)).

Connection Broker 8.0.80 – Release Notes

Connection Broker 8.0.80 is a maintenance release for Connection Broker 8.0. This release resolves the following issues when compared to Connection Broker version 8.0.77.

- Leostream Connect for Windows Operating systems has been updated to version 3.0.186. This version resolves issues launching NX player version 4.3.
- Implemented performance enhancements related to the feature to assign policies based on nested Active Directory groups. The introduction of that feature significantly slowed down user logins in certain environments.
- Added 6 months as an option for filtering the **Signed in** column on the **> Users > Users** page.
- Updated OpenSSL to version 1.0.1o.
- Improved reporting for the **Last Connect Time** and other columns related to tracking the users session on the **> Resources > Desktops** page for sessions offered from a multi-user center.
- Resolved an issue where requesting a reboot of a physical desktop could allow simultaneous reboots.

Connection Broker 8.0.77 – Release Notes

Connection Broker 8.0.77 is a maintenance release for Connection Broker 8.0. This release resolves the following issues when compared to Connection Broker version 8.0.64.

- Power control options for virtual machines in a VMware vCenter Server center now function properly.
- You can now export SSL credentials from Connection Brokers built using the version 8.0 appliance for VMware.
- You can now assign policies to users who have nested Active Directory groups.
- When uninstalling an SSL certificate, the private key is now also deleted.
- Restarting the Connection Broker no longer overrides changes made to the `/etc/resolv.conf` file.
- The Connection Broker now executes release plans for assigned desktops that are shut down using vCenter Server, if the desktop has a running Leostream Agent.
- Connection Broker `Pool_Power_State` jobs now queries the Leostream Agent to ensure that the correct power state is displayed for the desktop.
- The **> Resources > Desktops** page loads faster when containing information about PCoIP Remote Workstation Cards.
- The **Edit Desktop** page opens faster for desktops that contain PCoIP Remote Workstation Card information.
- Updated OpenSSL to version 1.0.1m
- The Connection Broker now uses cookies, in addition to session IDs, to determine if a URL may be accessed.

Connection Broker 8.0.64 – Release Notes

Connection Broker 8.0.64 is a maintenance release for Connection Broker 8.0. This update contains minor usability enhancements and is being made available along with a new Connection Broker 8.0.64 ISO. For more information or access to the ISO, please contact supportsite@leostream.com.

Connection Broker 8.0.61 – Release Notes

Connection Broker 8.0.61 is a maintenance release for Connection Broker 8.0.

Important Note

Connection Broker 8.0.61 addresses failures that occur when updating Connection Broker 7.7 or older to version 8.0. Ensure that you download the Connection Broker 8.0.61 update file if you are using one of these older Connection Broker versions.

Connection Broker 8.0.56 – Release Notes

Connection Broker 8.0.56 is a maintenance release for Connection Broker 8.0. In addition, Connection Broker 8.0.56 is available as a virtual appliance for VMware vSphere 5.x

Other virtualization platforms may be updated to version 8.0.56 by installing older Connection Broker versions and performing a Connection Broker update. Check the Leostream [Product Downloads](#) page for appliances for all supported virtualization platforms.

Important Notes

- RGS Sender version 7.0.2 for Linux operating systems has a known issue when used with Leostream. For a Linux operating system, use RGS Sender version 7.0.1, only. For a Windows operating system, use any RGS Sender version 7.0.1, or higher.
- SLP discovery of PCoIP devices has been deprecated. Use DNS SRV records or manual entry to inventory PCoIP devices in your Connection Broker.

Features

- The following minor Leostream components have been upgraded.
 - Leostream Connect for Windows – version 3.0.184
 - Leostream Connect for Linux – version 3.1.24
 - Leostream Agent for Linux – Version 3.1.74
- **Virtual Appliance:** The new Connection Broker virtual appliance for vSphere 5.x is built on CentOS 6.6. Older virtual appliance that are upgraded to version 8.0.56 retain their existing CentOS version.
- **SSL:** The OpenSSL library has been updated to version 1.0.1l.
- **VMware View:** Protocol plans now specify the remote viewer port to check when

connecting to desktops running the VMware View Direct-Connection Plugin, enabling backup pools and protocol failover.

- **Filters:** Active filters for any Connection Broker list are now highlighted, making it easier to interpret the content of each list.

Resolved Issues

- The Connection Broker now supports non-ASCII characters in a VMware virtual machine Annotation field.
- Password authentication is supported for NIS authentication servers.
- Applying the 8.0.56 Connection Broker update correctly handles PCoIP zero clients with a TERA1 card that are hard-assigned and connected to a remote workstation.
- If a desktop, application, client, or log filter is created and shared by a user that is subsequently deleted from the Connection Broker, that filter is now assigned to the main Connection Broker Administrator, who may then edit or delete the filter.
- All log messages are now sent to all specified syslog servers, instead of only messages related to user actions.
- Logoff notifications received for NoMachine NX sessions are no longer marked as disconnection.
- The Connection Broker provides better error handling for users logging in using a HP Session Allocation Manager (SAM) client

Database Changes

Version 8.0.56 adds the new field to the `plan_protocol` table to the Connection Broker database, when compared to Connection Broker version 8.0.47.

Connection Broker 8.0.47 – Release Notes

Connection Broker 8.0.47 is a maintenance release for Connection Broker 8.0. This new Connection Broker version resolves the issue where the login of multiple of unknown rogue domain users caused multiple local users to be created in the Connection Broker.

Connection Broker 8.0.46 – Release Notes

Connection Broker 8.0.46 is a major update to Connection Broker 7.8. You can update any existing 7.x Connection Broker to version 8.0.46. However, to obtain the updates to the underlying CentOS operating system, you must install a new Connection Broker virtual appliance.

See the [Connection Broker Virtual Appliance Administrator's Guide](#) for instructions on updating your Connection Broker. Follow the instructions in “Updating Connection Broker Clusters” when updating a cluster of Connection Brokers.

Important Notes

1. Connection Broker 8.0 clusters officially support Microsoft SQL Server 2012 and 2014 databases.
2. The Connection Broker no longer allows secure communication using SSLv3. Use the new security options on the > **System** > **Settings** page to configure the protocols the Connection Broker can use for secure communications.
3. The Connection Broker no longer provides Protocol Plan options for the iTAP RDP and VNC iOS clients. The iTAP mobile RDP and VNC apps for iOS were discontinued effective October 8, 2013. For users connecting from an iOS device, use the Leostream Web client with a third-party RDP app.
4. The **Configuration file** in the **NoMachine NX** section of new Protocol Plans supports connections from the NoMachine Player to NoMachine server version 4, by default.
5. The Connection Broker no longer supports NTLM logins to the Leostream web interface. The **Enable NTLM feature** option is no longer available on the > **System** > **Settings** page.

Features

- The following Leostream components have been upgraded.
 - Leostream Connect for Windows – version 3.0.182
 - Leostream Agent for Windows – version 5.6.151
 - Leostream Connect for Linux – version 3.1.16
 - Leostream Agent for Linux – Version 3.1.71
- **HPE Moonshot Systems**
 - A center can now be created for HPE Moonshot Systems, providing inventory and management of desktops hosted on the m700 and m710 Server cartridge (requires Chassis Manager firmware version 1.2 or 1.3) (see “HPE Moonshot System Centers” in the [Connection Broker Administrator's Guide](#))

- Windows Deployment Services integration automates scheduling operating system deployment to HPE Moonshot nodes (see “Microsoft Windows Deployment Services” in the [Connection Broker Administrator’s Guide](#))
- A new Getting Started Guide on using Leostream to manage HPE Moonshot Systems is available on the Leostream downloads page
- **OpenStack:**
 - Centers can now be created to inventory virtual machines in OpenStack® clouds, including HPE Helion OpenStack (see “OpenStack Centers” in the [Connection Broker Administrator’s Guide](#))
 - Provisioning parameters in pools can be configured to provision new virtual machines into OpenStack using the existing images in an OpenStack center (see “Provisioning in OpenStack” in Chapter 8 of the [Connection Broker Administrator’s Guide](#))
- **PCoIP**
 - Leostream Connect can now launch software-based PCoIP Connections to a Windows virtual machine running the VMware Horizon View Direct Connection Plug-In (see “PCoIP Connections to VMware Virtual Machines” in the Leostream guide for [Choosing and Using Display Protocols](#))
 - The Connection Broker now supports connecting to virtual machines running the VMware Horizon View Direct Connection Plug-In from a PCoIP zero client (see “PCoIP Connections to VMware Virtual Machines” in the Leostream guide for [Choosing and Using Display Protocols](#))
 - PCoIP client scan now be reset from the > **Clients** page (see “Resetting PCoIP Zero Clients” in Chapter 17 of the [Connection Broker Administrator’s Guide](#))
 - PCoIP Host Devices can now be deleted in bulk (see “Deleting PCoIP Remote Workstation Cards” in Chapter 17 of the [Connection Broker Administrator’s Guide](#))
 - The Java version of the Leostream Agent now supports single sign-on for PCoIP connections to desktops running a Red Hat operating system
- **Rogue User Control:** Users connecting to desktops from non-Leostream clients can now be assigned to the connected desktops, ensuring that the Connection Broker does not offer these desktops to other Leostream users (see “Assigning Desktops to Rogue Users” In Chapter 6 of the [Connection Broker Administrator’s Guide](#))
- **User Configurable Protocol Plan Parameters:**
 - Users can now configure protocol plan parameters for HP RGS connections (see “Setting User-Configurable HP RGS Parameters” in the Leostream guide for [Choosing and Using Display Protocols](#))

- Users can now configure the value used for the `Disable backingstore` parameter for NoMachine NX connection (see “Setting User-Configurable NX Parameters” in the Leostream guide for [Choosing and Using Display Protocols](#))
- The Protocol Plan form can no longer be saved if the configuration file is missing the dynamic tags required for selected user-configurable parameters
- Users can now save user-configured protocol plan parameters globally, as an alternative to storing the parameters per-desktop (see “User Configurable Protocol Plan Parameters” in the Leostream guide for [Choosing and Using Display Protocols](#))
- Users can now configure protocol plan parameters using the Java version of Leostream Connect
- **Locations:** Client locations can now be created using the client’s chassis type (see “Creating Locations” in the [Connection Broker Administrator’s Guide](#))
- **Release Plans:** Release plan options can now be scheduled for up to 14 days (See “Creating Release Plans” in the [Connection Broker Administrator’s Guide](#))
- **Administrator Web Interface Options:** Two new options on the **> Users > My Options** page improve the usability and performance of the Connection Broker Administrator Web interface (see “Highlighting Active Filters” and “Restoring Connection Broker Default Views” in the [Connection Broker Administrator’s Guide](#))
- **Leostream Management API:**
 - `VM.Add` now supports separately setting the desktop hostname and IP address.
 - `User.Remove` can be used to remove a user from the Connection Broker
 - `VM.Find` can now return all desktops in a particular pool
- **Security:**
 - Leostream session files are now stored in memory, instead of on disk
 - Connection Broker administrators can now set the protocol used for secure communications with Leostream Connect clients and Leostream Agents, using the new options on the **> System > Settings** page (see “Configuring Secure Connection Broker Communication” in the [Connection Broker Administrator’s Guide](#))
 - The Connection Broker now includes OpenSSL version 1.0.1j
- **Desktops**
 - The new **Control** bulk action can be used to power control multiple desktops, simultaneously (see “Performing Actions on Multiple Desktops in the [Connection Broker Administrator’s Guide](#))

- The new **Upgrade** bulk action can be used to upgrade the Leostream Agent on multiple desktops, simultaneously (see “Updating the Leostream Agent on Multiple Desktops” in the [Connection Broker Administrator’s Guide](#))

Resolved Issues

- All polling and scan jobs in the Job Queue now report as being run by the Connection Broker instead of as by the user who created the associated center
- The **> System > Remote Backup** page no longer displays for Connection Brokers attached to a remote database
- The Connection Broker now uses the Active Directory GUID to determine if desktops from an Active Directory center are duplicates, and looks across all centers created from the same authentication server
- Center scan jobs, such as `hda_scan`, now limit their scan to only desktops in that center
- The Connection Broker now blocks the administrator from performing an update if a previous update is still in progress
- The **Test Login** form can now be used to test the login for local users when a single authentication server is defined in the Connection Broker

Database Changes

Version 8.0.46 adds the new `config_param_global_setting` table to the Connection Broker database, when compared to Connection Broker version 7.8.79. In addition, new fields are added to the following tables in the Connection Broker databases.

- `client`
- `configurable_parameter`
- `general_config`
- `log_settings`
- `plan_protocol`
- `policy`
- `server`
- `table`
- `vm`
- `work_queue`

Leostream Connect for Microsoft® Windows® Operating Systems – Version 3.0.182

- **Software-based PCoIP:** Connections to virtual machines running the VMware Horizon View Direct-Connection Plugin can now be made using the latest VMware Horizon View client. See “PCoIP Connections to VMware Virtual Machine” in the Leostream Guide for [Choosing and Using Display Protocols](#) for more information.
- **HP RGS:** Leostream Connect now supports the {SESSION} dynamic tag when allowing users to configure screen resolution for RGS sessions (see “Setting User-Configurable HP RGS Parameters” in the Leostream guide for [Choosing and Using Display Protocols](#)).
- **Windows 8:** Leostream Connect now supports touch-screen keyboards when installed as the Windows shell.

Leostream Connect for Linux® Operating Systems – Version 3.1.16

Important Note

Leostream Connect now requires a Java Runtime Environment version 1.7 or higher.

Features

- **User-configurable Parameters:** Users can now configure protocol plan parameters when using the Java version of Leostream Connect.
- **USB:** Leostream Connect provides updated USB drivers and resolves a number of issues related to USB device redirection. Leostream now supports Linux kernel versions up to 3.15.0.

Leostream Agent for Microsoft® Windows® Operating Systems – Version 5.6.151

- **Windows Deployment Services:** The Leostream Agent can now be installed on a Windows Deployment Services server to return information and perform preparation on install images to be used by the Connection Broker to deploy operating systems to HPE Moonshot Systems.
- **USB:** The Leostream Agent includes updated USB drivers. These USB drivers are backwards compatible with the previous release of all Leostream components.

- **Installation:** The `CBPORT` parameter can no longer be specified during command line installations. The Leostream Agent now always uses port 443 for secure communication with the Connection Broker.
- **PCoIP:** The Leostream Agent automatically unlocks a disconnected session when the user reconnects.

Leostream Agent for Linux[®] Operating Systems – Version 3.1.71

Important Note

The Leostream Agent now requires a Java Runtime Environment version 1.7 or higher.

Features

- **PCoIP:** The Leostream Agent now provides single sign-on to PCoIP sessions for Ubuntu and Red Hat operating systems.
- **Idle-time Actions:** The new Leostream Desktops process runs in the user's space, and allows the Leostream Agent to support user idle-time actions configured in Release Plans for users logged into Ubuntu or Red Hat Linux desktops.
- **USB:** The Leostream Agent provides updated USB drivers and resolves a number of issues related to USB device redirection. Leostream now supports Linux kernel versions up to 3.15.0.
- **HP RGS:** The Leostream Agent can now disconnect HP RGS sessions.
- **NoMachine NX:** The Leostream Agent now tracks sessions for NoMachine NX version 4.0

Appendix A: Version Compatibility

Leostream Agent Compatibility Matrix

The following table indicates the Leostream Agent versions that are compatible with the currently supported Connection Broker versions. Connection Brokers cannot communicate with incompatible Leostream Agents, resulting in a loss in Leostream functionality.

Connection Broker	Version	8.1	8.2.71 and earlier	8.2.73	9.0
Leostream Agent for Windows	5.x	Y	Y	N	N
	6.x	Y	Y	Y	Y
	7.0	N	N	Y	Y
Leostream Agent for Linux	3.x	Y	Y	N	N
	4.x	Y	Y	Y	Y

Leostream Agent versions older than 5.0 for Windows and 3.0 for Linux are not compatible with any supported Connection Broker.

Leostream Connect Compatibility Matrix

The following table indicates the Leostream Connect versions that are compatible with the currently supported Connection Broker versions.

Connection Broker	Version	7.8	8.0	8.1+
Leostream Connect for Windows	3.0	Y*	Y	Y
	3.5	Y	Y*	Y*
Leostream Connect for Linux	3.0	Y*	Y	Y
	3.1	Y	Y*	Y*

- 8.1+ indicates all Connection Broker versions 8.1 and higher.
- Asterisks indicate the minimum Leostream Connect version required to use all of the features in the associated Connection Broker release.