



# **Connection Broker**

**Where Virtual Desktops Meet Real Business**

## **Release Notes**

Version 6.5  
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# Connection Broker 6.5.61 – Release Notes

Connection Broker 6.5.61 is available as an update to any Connection Broker version 6.x.

 Due to database changes, if you are using a cluster of Connection Brokers older than version 6.5, you must update to version 6.4.54 via the **Check for updates** option on the > **System** > **Maintenance** page before proceeding to update to Connection Broker 6.5. After you have updated to Connection Broker 6.4.54, use the **Check for updates** option to update to 6.5. Any Connection Brokers not running in a clustered environment *can* be directly updated to version 6.5.

- See “Updating Connection Broker 6.0 through 6.4” in the [Connection Broker Administrator’s Guide](#) for instructions on updating any Connection Broker 6.x version.
- See “Updating Connection Broker 6.5” in the [Connection Broker Administrator’s Guide](#) for instructions on updating Connection Broker version 6.5.

To upgrade from Connection Broker 5.x, you must first install a new Connection Broker 6.3 virtual appliance then use the **Check for updates** option to update to version 6.5. See [Upgrading from Version 5.3.x to Version 6.3](#) for detailed instructions.

## Connection Broker 6.5.61

### Features

- **Leostream Component:** The Connection Broker includes updated versions of the point releases for the following Leostream components:
  - Leostream Connect 2.6.126 – Windows version: Minor updates for Leostream Connect running in shell-mode and for USB redirection
  - Leostream Connect 2.0.62 – Java version: Minor updates in support of latest version of Oracle Secure Global Desktop.
  - Leostream Agent 4.6.95 – Windows version: Minor bug fix update for Leostream Agents that are registered with multiple Connection Brokers
- **Default Leostream Agent Port:** A new field on the > **System** > **General Configuration** page allows you to set the default port for Leostream Agent communications.
- **Uncategorized Desktops:** The Connection Broker now stores all desktops that are reported when a Leostream Agent registers the desktop, even if no **Uncategorized Desktop** center exists. Even those these desktops are stored, the Connection Broker does not display these registered desktops on the > **Resources** > **Desktops** page or offer them to users until an **Uncategorized Desktop** center is created.
- **Sun Ray:** New support for Sun Ray environments when virtual machines are not in VMware vCenter Server clusters.
- **Test Login:** The **Test Login** report now indicates if the user is being forwarded to another Connection Broker.
- **Performance:** Improved performance for deleting and scanning centers with a large number of desktops.

### Resolved Issues

- **Web page performance:** Improved load times for Web pages in large deployments. Also addresses load time issues if the Connection Broker does not have network access.

- **Release:** The **Release** option is now only shown for desktops that are already assigned to the user.
- **VPN Login:** Users that are forwarded to another Connection Broker can now successfully log in through a VPN.
- **Centers:** Deleting a center now cancels any running refresh job for that center.
- **Desktop reboot jobs:** All pending desktop reboot jobs resulting from a power control plan are now cancelled when that desktop is reassigned to a user.

## Database Changes

This release adds a `vm_registration` table to the database.

## Working with Sun Secure Global Desktop

The latest version of Sun Secure Global Desktop (SGD) requires the following changes when used with Leostream Connect.

1. If you upgraded from a previous Connection Broker version, ensure that you remove the `-windowskey` parameter from the **Command line parameter** in the **Sun Secure Global Desktop** session of the Protocol Plan.
2. When configuring the Connection Broker for use with SGD, ensure that you select the **Exit client after connection to resource is established** option on the Connection Broker > **System** > **General Configuration** page.
3. If a user encounters an error when launching a desktop using SGD, simply click through the error to launch the remote session to the desktop.

# Connection Broker 6.5.35 – Release Notes

Connection Broker 6.5.35 is available as an update to any Connection Broker version 6.x.

## Connection Broker 6.5.35

### Features

- **Leostream Components:** The Connection Broker includes updated versions of the point releases for the following Leostream components:
  - Leostream Connect 2.6.118 – Microsoft Windows version: Improvements for USB device redirection and run-as-shell mode.
  - Leostream Connect 2.0.52 – Java version: The **Test** button now displays “Connection Broker unreachable” if an invalid Connection Broker address is entered in the **Options** dialog.
  - Leostream Agent 4.6.89 – Microsoft Windows version: Minor update, including improvements to the location-based printing feature.
  - Leostream Agent 1.2.12 – Java version: Minor update to resolve an issue when running with JDK 1.5.
- **Loading Users:** The **Load Users** feature for authentication servers has been expanded to include options for refining the search for users to load.


- **HP Blade Location:** The display for HP Blade locations has been simplified on the > **Resources > Desktops** page. Blade locations no longer require the administrator to hover over the desktop row to see the entire blade location. See the [Connection Broker Administrator's Guide](#) for a description of the new blade location format.
- **Web Page Performance:** A number of performance improvements have been added to the Administrator Web interface, to speed up page rendering when the Connection Broker is managing a large number of users and the **Login name unique across domains** option is not selected on the > **System > Maintenance** page.
- **Work Queue Performance:** New work queue performance enhancements improve job prioritization during login storms, to improve the user experience during logins.

## Resolved Issues

- When an end user logs into Leostream Connect or the Leostream Web client, the **Release** option no longer appears for desktops that are not currently assigned to that user.
- Location-based override of the Protocol Plans are now correctly applied. The > **System > Logs** page now includes a log message when the protocol plan is overwritten based on the client location.
- The `REMAPPED_IP` dynamic tag is now correctly parsed and replaced.

# Connection Broker 6.5.27 – Release Notes

Connection Broker 6.5.27 is available as an update to any Connection Broker version 6.x that is not running in a Connection Broker cluster. See “Updating Connection Broker 6.0 through 6.4” in the [Connection Broker Administrator's Guide](#) for detailed instructions.

 Due to database changes, if you are using a cluster of Connection Brokers older than version 6.5, you must update to version 6.4.54 via the **Check for updates** option on the > **System > Maintenance** page before proceeding to update to Connection Broker 6.5. After you have updated to Connection Broker 6.4.54, use the **Check for updates** option to update to 6.5.

To upgrade from Connection Broker 5.x, you must first install a new Connection Broker 6.3 virtual appliance then use the **Check for updates** option. See [Upgrading from Version 5.3.x to Version 6.3](#) for detailed instructions.

## Connection Broker 6.5.27

### Features

The following features were added to Connection Broker 6.5. See the referenced section in the [Connection Broker Administrator's Guide](#) for more information.

- **Enhanced Web Client**
  - The look-and-feel of the Leostream Web client has been enhanced to improve the end-user experience and usability (see **Chapter 15: Accessing Resources via the Web Client**).
  - The Web client now honors settings for registry plans, printer plans, and user role settings for adding Local users and adding users to the Remote Desktop Users group.
- **Monitor Layouts/Display Plans:** When updating from a previous Connection Broker version, monitor layouts on the > **Clients > Monitor Layouts** page have moved to the > **Plans > Display** page.

- You can now create display plans that automatically match the layout and resolution of the client displays, within the limits of the display protocol used to connect to the desktop (see **Display Plans to Match Client Displays**).
  - A **Default** display layout now applies to all clients that are not assigned a specific display layout (see **The Default Display Plan**).
- **Connection Broker Updates:** The workflow for updating the Connection Broker has changed. The Connection Broker now automatically indicates when an update file is available (see **Updating the Connection Broker**).
- **Citrix XenApp Support:** The Web client can now use the Citrix Client for Java when launching XenApp applications and desktops (see **Citrix XenApp ICA**).
- **Client Locations:** Client locations can now be defined using subnet maps specifying a network mask length and a target range for the source and destination (see **Using Subnet Masks to Create Locations**).
- **Active Directory Centers:**
  - New support the **Continuously apply auto-tags** option (see **Active Directory Centers**).
  - The **Monitor desktop power state** option has been replaced with the **Power state refresh interval** option. The new refresh interval allows you to specify how often the Connection Broker polls the remote viewer and Leostream Agent ports on the remote desktop to determine each desktop's power state (see **Active Directory Centers**).
- **Pools:**
  - Pools can now be created based on vCenter Server clusters (see **Defining Pools Using VMware vCenter Server Clusters**).
  - Additional information about the power status of the desktop and Leostream Agent is now shown on the > **Resources > Pools** page (see **Displaying Pools**).
- **Policy Filters:**
  - Per-pool and policy-wide desktop filters in a policy can now be created using the custom attributes defined in VMware vCenter Server. Up to four custom attributes can be used (see **Specifying VMware vCenter Server Clusters for Desktop Filters and Policy Filters**).
  - Dynamic tags can now be used when defining policy filters, including special dynamic tags that allow you to build filters based on user and client attributes (see **Using Dynamic Tags in Policy Filters**).
- **WebHook Support:** You can now specify custom WebHooks to call when the user logs into the Connection Broker, allowing you to perform custom actions for every user login (see **Using WebHooks in Policies**).
- **Authentication:**
  - A new setting on the > **System > General Configuration** page allows you to explicitly specify if the **Domain** field is a drop-down menu or edit field on the **Login** pages for Leostream Connect and the Leostream Web client (see **Enabling Authentication Server Features**).
  - You can now specify a default authentication server to display the first time Leostream Connect or the Leostream Web client runs on a particular client device (see **Populating the Domain Drop-Down and Setting Default Domain**). Previously, the client always displayed either **<Any>** or **<None>** depending on the setting for the **Login name unique across domains** field. Now, the default domain is displayed.
  - When the **Login name unique across domains** field is turned off on the > **System > General Configuration** page, user names are now listed with their domain, allowing you to

distinguish different users when hard-assigning desktops or viewing users assigned to desktops on the > **Resources** > **Desktops** page.


- **Local User Support:**
  - The Connection Broker can now automatically add local users to remote Windows desktops, supporting, simplifying deployments for non-domain users (see **Session Permissions**).
  - The Connection Broker can now add users to the Remote Desktop Users group as either a domain or local user. Previously, the Connection Broker always added the user as a domain user (see **Session Permissions**).
- **Search**
  - The new **Search** page allows you to quickly locate particular objects in the Connection Broker (see **Global Search**).
  - Table-level searches for desktops, users, and clients allow you to quickly find an object in these pages (see **Per-Page Search**).
- **Roles:** A new **Load User** authentication server permission gives read-only access to the authentication servers while allowing a user with this role to load users from this authentication server (see **Setting Permission Levels**).
- **Power Monitoring:**
  - When manually importing desktops, if the Connection Broker cannot determine the desktop's power state, the state is now displayed as **Unavailable**. Previous Connection Broker versions reported these desktops as **Stopped**.
  - The Connection Broker now monitors the power state of physical desktops in an Active Directory center by running the `poll_power_state` job, separate from the regular center refresh job. When polling for the power state, the Connection Broker now checks the remote viewer ports and Leostream Agent port, to determine if the desktop is running. If no ports are open, the Connection Broker marks the desktop as `Stopped` (see **Determining Power State for Physical Desktops**).
- **Cisco VPN Client Support:** Leostream Connect can now automatically establish a VPN tunnel using a Cisco Systems VPN client (see **Using the Cisco VPN GUI with Leostream Connect**).
- **Logging and Auditing**
  - The **Log Settings** page no longer provides options to turn off logging for certain object types (see **Customizing Log Levels**).
  - New **Events** column on the > **System** > **Log** page allows logs to be sorted and searched for particular activity, such as user login, desktop assignment, and more (see **Available Log Characteristics**).
  - The Connection Broker now logs all changes made to the Connection Broker Administrator Web interface (see **Using Logs to Track Connection Broker Configuration Changes**).
  - Custom filters can now be created for the > **System** > **Log** page, allowing you to create customized reports (see **Filtering the Log List**).
- **Job Queue**
  - Pending work queue jobs can now be rescheduled to ensure that less critical jobs are not run during login storms (see **Rescheduling Pending Jobs**).
  - Work queue jobs associated with Connection Brokers that were removed from cluster can now be deleted from the job queue (see **Purging Pending and Running Jobs**).

- **Connection Broker Metrics:** Each Connection Broker now has an associated `heartbeat` job, which is used to determine if Connection Broker Metrics should be displayed for that Connection Broker. Connection Brokers that skip two heartbeats can be hidden in the Metrics report (see **Reporting Connection Broker Metrics**).
- **Bulk upload:** The new **Upload** column for users and clients allows you to distinguish users and clients that were bulk uploaded from the **> System > Maintenance** page (see **Uploading Users**).

## Resolved Issues

- The Connection Broker now consistently syncs the networking information stored in the database and used by the Linux virtual appliance.
- When downloading the Leostream technical support logs, the postgres files are no longer included.
- A `system_check` job now exists for each Connection Broker in a cluster. This allows clustered Connection Broker to more efficiently clean out stale user-session state files, resulting in faster reboot times.

## Database Changes

 Due to database changes, when using a cluster of Connection Brokers, you must update Connection Broker 6.x to version 6.4.54 before proceeding to update to Connection Broker 6.5 or higher.

Version 6.5.27 adds fields to the following tables in the Connection Broker databases.

- `broker`
- `client`
- `display_layout`
- `log`
- `plan_protocol`
- `pool`
- `user`
- `vm`

## Leostream Connect 2.6.109 – Microsoft Windows Version


Version 2.6 is the current version of Leostream Connect for Windows operating systems. This point release includes the following enhancements.

- Leostream Connect now provides the Connection Broker with information about the number and resolution of displays attached to the client, in support of the new Connection Broker display plan that automatically matches the remote desktop to the displays connected to the clients.
- New installations of Leostream Connect honor the default domain specified in Connection Broker 6.5.
- Performance enhancements for USB device management.
- Leostream Connect can now automatically establish a VPN tunnel when using a Cisco Systems VPN client.
- New `-login` and `-logout` command line parameters allow you to forcefully log out or switch users.
- Leostream Connect shell-mode enhancements:
  - New quick-key combination for opening the **Options** dialog, allowing you to modify the

- Connection Broker address and access USB options when working in shell mode.
- New quick-key combination for exiting shell mode.
- Leostream Connect shell mode now provides a popup menu that provides access to options previously available only in the Leostream Connect system tray menu.
- When running in shell mode, Leostream Connect now waits for the network to be available before opening the **Login** dialog.
- Client-side credential passthrough is now available for Windows Vista and Windows 7 clients using the Leostream Credential Provide.
- Leostream Connect now stores logs in one of the following locations, in order:
  - The location specified in the **Log** tab on the **Options** dialog
  - The Leostream Connect installation directory
  - A directory named `temp` inside of the Leostream Connect installation directory
  - The `temp` directory inside the user folder for the currently logged in user
  - The system `root` directory
- The **About** window is now included in the **Options** dialog.

## Leostream Connect 2.0.51 – Java Version

Version 2.0 is the current version of Leostream Connect for Linux operating systems.

 Version 2.0 obsoletes the tabbed dialog version of Leostream Connect. Existing installations that use the tabbed dialog will automatically switch to the standard dialog format. See the [Leostream Connect Administrator's Guide and End User's Manual](#) for complete information on these features.

This release includes the following enhancements.

- Leostream Connect no longer includes documentation in the `index.html` file. All documentation is included in this Administrator's guide.
- Enhanced **Options** dialog includes options to set the Connection Broker address, specify logging configuration, and enter paths to remote viewers.
- Support for installing on client devices running Apple Mac OS X.
- New installations of Leostream Connect honor the default domain specified in Connection Broker 6.5.
- Support for the **Allow unauthenticated logins (hides password field)** option on the Connection Broker > **System > General Configuration** page. By enabling this feature, end-users can authenticate using fingerprint logins on their remote desktops.
- Leostream Connect can now be automatically upgraded using the options on the Connection Broker > **System > General Configuration** page.
- The **Options** dialog can now be accessed from the **Login** dialog by pressing `Ctrl+Shift+O`.
- New option to display a warning if the `Caps Lock` key is on and the user is focused on the **Password** field in the **Login** dialog.
- New Leostream Connect sidebar for connecting and disconnecting from resources, as well as attaching USB devices to desktops launched using HP RGS.
- When specifying the path to a remote viewer on the **Options** dialog, pressing `Ctrl+O` opens a **Browse** dialog for the viewer with the cursor's focus.

- New option to include a customized link on the **Login** dialog.
- New graphical log viewer available for accessing logs in environments where command line access is not available.

## Leostream Agent 4.6.76 – Microsoft Windows Version

Version 4.6 is the current version of Leostream Agent for Windows operating systems. This point release contains the following enhancements.

- The **Enable single sign-on for PCoIP and VNC** task now enables single sign-on for desktops running a Microsoft Vista and Windows 7 operating system when connecting using VNC or Teradici PC-over-IP protocols.
- The Leostream Agent can now create local user accounts on the remote desktop, and add these users to the Local Users group and Remote Desktop Users group.
- The Leostream Agent now stores logs in one of the following locations, in order:
  - The location specified in the Leostream Agent **Log Settings** dialog
  - The Leostream Agent installation directory
  - A directory named `temp` inside of the Leostream Agent installation directory
  - The `temp` directory inside the user folder for the currently logged in user
  - The system `root` directory


## Leostream Agent 1.2.11 – Java Version

Version 1.2 is the current version of Leostream Agent for Linux. This point release contains the following enhancements.

- Support for installation on Novell SUSE Linux Enterprise remote desktops.
- The **Upgrade** option on the > **Resources** > **Desktops** page can now be used to upgrade the Leostream Agent on Linux desktops.
- The Sun Ray components are no longer included in the Leostream Agent installation package. Sun Ray components are now part of the Leostream Connect installation package (see the [Leostream Installation Guide](#) for more information).

# Connection Broker 6.4.54 – Release Notes

Connection Broker 6.4.45 is a minor update to version 6.4.21.

 Due to database changes, when using a cluster of Connection Brokers 6.4 or older, you must update to version 6.4.54 before proceeding to a higher Connection Broker version.

## Connection Broker 6.4.54

### Features

- **Leostream Components:** The Connection Broker includes updated versions of the point releases for the following Leostream components:
  - Leostream Connect 2.5.67 – Microsoft Windows version
  - Leostream Connect 1.5.116 – Java version
  - Leostream Agent 4.5.43 – Microsoft Windows version
  - Leostream Agent 1.1.47 – Java version
- **Authentication:**
  - A new setting on the **> System > General Configuration** page allows you to explicitly specify if the **Domain** field is a drop-down menu or edit field on the **Login** pages for Leostream Connect and the Leostream Web client (see **Enabling Authentication Server Features**).
  - You can now specify a default authentication server to display the first time Leostream Connect or the Leostream Web client runs on a particular client device (see **Populating the Domain Drop-Down and Setting Default Domain**). Previously, the client always displayed either **<Any>** or **<None>** depending on the setting for the **Login name unique across domains** field. Now, the default domain is displayed.
  - When the **Login name unique across domains** field is turned off on the **> System > General Configuration** page, user names are now listed with their domain, allowing you to distinguish different users when hard-assigning desktops or viewing users assigned to desktops on the **> Resources > Desktops** page.
- **Local User Support:**
  - The Connection Broker can now automatically add local users to remote Windows desktops, supporting, simplifying deployments for non-domain users (see **Session Permissions**).
  - The Connection Broker can now add users to the Remote Desktop Users group as either a domain or local user. Previously, the Connection Broker always added the user as a domain user (see **Session Permissions**).
- **Loading Users:** The **Load Users** feature for authentication servers has been expanded to include options for refining the search for users to load.
- **Roles:** A new **Load User** authentication server permission gives read-only access to the authentication servers while allowing a user with this role to load users from this authentication server (see **Setting Permission Levels**).
- **HP Blade Location:** The display for HP Blade locations has been simplified on the **> Resources >**

**Desktops** page. Blade locations no longer require the administrator to hover over the desktop row to see the entire blade location. See the [Connection Broker Administrator's Guide](#) for a description of the new blade location format.

- **Web Page Performance:** A number of performance improvements have been added to the Administrator Web interface, to speed up page rendering when the Connection Broker is managing a large number of users and the **Login name unique across domains** option is not selected on the **> System > Maintenance** page.
- **Work Queue Performance:** New work queue performance enhancements improve job prioritization during login storms, to improve the user experience during logins.

## Resolved Issues

- **Critical:** Resolves issues stemming from changes in the Connection Broker database. When running Connection Brokers in a cluster, you must update to version 6.4.54 before continuing to update to higher Connection Broker versions.
- When an end user logs into Leostream Connect or the Leostream Web client, the **Release** option no longer appears for desktops that are not currently assigned to that user.
- Location-based override of the Protocol Plans are now correctly applied. The **> System > Logs** page now includes a log message when the protocol plan is overwritten based on the client location.
- The `REMAPPED_IP` dynamic tag is now correctly parsed and replaced.
- The Leostream Web client now waits for a stopped or suspended desktop to power up before attempting to establish a connection.

# Connection Broker 6.4.21 – Release Notes

Connection Broker 6.4.21 is a minor update to version 6.4.17.

## Connection Broker 6.4.21

### Features

- **Leostream Components:** The Connection Broker includes updated versions of the point releases for the following Leostream components:
  - Leostream Connect 1.5.116 – Java version: See [Leostream Connect 1.5.116 – Java Version](#)
  - Leostream Agent 1.1.47 – Java version: All files are properly formatted for Linux operating systems; `^m` no longer appears in any files.
  - Leostream Agent 4.5.43 – Windows version: Addresses an issue with the firewall dependency on Windows operating systems.
- **Release Plans:** New option to indicate how the Connection Broker should handle a disconnect action when the Leostream Agent is not present or reachable on the remote desktop to verify the user's state. Previously, unverified disconnect actions were always treated as a logout. Release plans now allow you to indicate if an unverified disconnect should be treated as a logout or disconnect.
- **USB Devices and HP RGS:** When using the Java version of Leostream Connect, a new dynamic tag allows you to select which remote desktop has access to USB devices attached to the client device

(see “USB Passthrough with HP RGS” in the [Leostream Connect Administrator’s Guide and End User’s Manual](#)).

## Resolved Issues

- In Sun Ray environments, the Connection Broker correctly switches to the appropriate Sun Ray Server when a list of hosts is provided in the **Sun Ray Details** section of the VMware vCenter Server center. See the [Leostream Thin Clients Guide](#) for more information on configuring the Connection Broker for use in Sun Ray environments.
- In cases where the default **All Printers** printer plan is empty, i.e., no Printer Repository center is defined, the Connection Broker no longer removes the network printers that were manually added to the remote desktops.
- When using 1E WakeUp to power up physical desktops, the Connection Broker no longer performs a NetBIOS name lookup. To obtain the NetBIOS name, the Connection Broker queries the Active Directory center that registers this desktop. If the desktop’s Active Directory record does not contain an accurate NetBIOS name, the wake-up command will fail.
- In cases where the Connection Broker does not accurately know the power state of a physical desktop, for example, if the physical desktop does not have a running Leostream Agent, the Connection Broker now always sends a call to the 1E WakeUp server to power up the machine when the user is assigned to that desktop.

## Database Changes

Version 6.4.21 adds a field to the `plan_release` table in the Connection Broker database. In addition, version 6.4.21 makes a type change to a field in the `skin` table.

## Leostream Connect 1.5.116 – Java Version

- New `lc.conf` file parameter `read_username_from_smartcard` allows Leostream Connect to automatically populate the **User name** field on the login dialog with the username on a Sun Ray DTU Java smartcard.
- The Leostream Connect sidebar now contains options for attaching all USB devices to the remote session when connecting to remote desktops using HP RGS (see “USB Passthrough with HP RGS” in the [Leostream Connect Administrator’s Guide and End User’s Manual](#))

## Connection Broker 6.4.17 – Release Notes

Connection Broker 6.4.17 is a point release update to version 6.3.61. For information on features in earlier releases, please contact [sales@leostream.com](mailto:sales@leostream.com).

## Connection Broker 6.4.17 – General Availability

### Features

- **Leostream Components:** The Connection Broker includes updated versions of the point releases for the following Leostream components. In addition, the Connection Broker contains a new point release of the Windows version of the Leostream Agent (see [Leostream Agent 4.5.42 – Microsoft Windows Version](#))
  - Leostream Connect 2.5.67 – Windows version: This update release contains improvements

that prevent duplicate clients from appearing in the Connection Broker > **Clients** > **Clients** page.

- Leostream Connect 1.5.107 – Java version: This update release provides enhancements for HP RGS connections and the new Leostream Connect sidebar for launching and disconnecting from remote sessions. See the [Leostream Connect Administrator's Guide and End User's Manual](#) for complete details.
- Leostream Agent 1.1.44 – Java version: This update release includes minor bug fixes.
- **Microsoft SQL Server 2008 Support:** The Connection Broker now fully supports external databases stored in a Microsoft SQL Server 2008 database
- **Web Browser Look-and-Feel:**
  - Connection Broker skins provide additional controls to specify the colors used on Connection Broker forms, including setting the color used for all text and links (see [Creating Color Schemes \(Skins\)](#))
  - You can now specify a custom logo and favicon on the Leostream Web Client and Administrator Web interface (see [Displaying a Custom Logo and Favicon](#))
- **Policies:** Desktop **Filters** can now be applied on a pool-by-pool basis, in addition to across all pools in a policy
- **Authentication:**
  - For authentication servers created without the **Query for group information** option selected, you can assign roles and policies using LDAP filter expressions (see [Assigning Roles and Policies Based on Multiple Attributes](#))
  - You can now toggle the value for the **Query for group information** option after the authentication server is created, allowing you to turn off the group query to improve performance after configuring your authentication server
- **Logging Events:** The following new logging events allow you to use SNMP traps and syslog to track pool thresholds and Connection Broker metrics:
  - Log information, warnings, or errors when any of the metrics on the **Connection Broker Metrics** report exceed a lower or upper threshold
  - Log information, warnings, or errors when desktop pool levels reach a lower bound
- **Performance:** Work queue enhancements significantly improve performance for large-scale deployments
- **HP Blade Location:** The Connection Broker can now display rack, enclosure, and location information for HP ProLiant blades in an HP BladeSystem enclosure equipped with HP Onboard Administrator, simplifying the process of locating blades in need of maintenance
- **SSL Communications:** The **Use SSL** drop-down menus have been removed from the **Edit Desktops** and **Edit Centers** pages; when communicating with the Leostream Agent, the Connection Broker defers to the SSL setting in the Leostream Agent Control Panel dialog

## Resolved Issues

- The Connection Broker now updates stale IP addresses for desktops that were shutdown or suspended when their DHCP lease expired. Requires Leostream Agent 4.5 be running on the remote desktop.

## Database Changes

Version 6.4.17 adds fields to the following tables in the Connection Broker database.

- client
- skin
- general\_config
- vm
- health\_attribute
- policy\_assignment
- pool

In addition, version 6.4.17 makes a type change to a field in the `remote_authentication_assign` table.

## Points of Interest When Updating from Connection Broker 6.2 to 6.4 or Higher

- **SSL:** The Connection Broker no longer contains any **Use SSL** drop-down menus for desktops and centers. When upgrading existing Connection Brokers, the Connection Broker tries the last known setting for SSL communications. For example, if a particular desktop had the **Use SSL** drop-down menu set to **Yes**, the Connection Broker first tries to communicate with the Leostream Agent using SSL. If SSL fails, the Connection Broker switches to non-SSL, and continues to use non-SSL until the Leostream Agent is reconfigured to require SSL. Alternatively, if a desktop had the **Use SSL** drop-down menu set to **No**, the Connection Broker first tries non-SSL communications with the Leostream Agent and, if this Leostream Agent is configured to require SSL, switches to SSL.
- **Roles:** When upgrading your Connection Broker, the new session permissions **Allow user to manually release desktops** and **Allow user to power desktops on and off** will be turned on and off based on the setting of the **Desktops and Applications** drop-down menu in your existing role, as follows.
  - If the previous role was set to **Power control only access**, the new role has the **Allow user to power desktops on and off** option checked.
  - If the previous role was set to **Release control only access**, the new role has the **Allow user to manually release desktops** option checked.
  - If the previous role was set to **Power and release control access**, the new role has the **Allow user to power desktops on and off** and **Allow user to manually release desktops** options checked.



If a user that logs in using Leostream Connect is assigned a policy that allows them to restart their desktops, that user must now have a role that provides the restart permission. If the user's updated role does not have the **Allow user to power desktops on and off** option selected, the user no longer sees the **Restart** menu in the Leostream Connect System Tray.

- **Roles:** Connection Broker 6.2 always displayed the **> Status > Downloads** page when the end-user logged into the Connection Broker Web interface. In 6.4, the Leostream Web client *never* displays this page. If an end-user requires access to the **> Status > Downloads** page, you must modify the user's role to provide access to the Administrator Web interface, and select the **Full** permission for the **> Status > Downloads** page.
- **Roles:** In Connection Broker 6.2, roles that provided **Full** access to the **> Users > Users** or **> Users > Roles** page allowed the user to edit the Administrator user or role, respectively. In 6.4, **Full** access *does not* allow the user to edit the Administrator user or role. If the user requires access to the Administrator user or role, modify their role permission to provide **Administrator** access for the **> Users > Users** or **> Users > Roles** page, as necessary.
- **Bulk Upload:** If you use the **Upload users** option on the **> System > Maintenance** page to load users into your Connection Broker, the default value for the `authentication_method` column has changed. Previously, if you did not specify a value for the `authentication_method` column, the

Connection Broker configured the user as authenticated locally by the Connection Broker. In 6.4, if the `authentication_method` column is blank, the Connection Broker assumes the user is authenticated remotely.

When you load a user without specifying the authentication method, the **Authentication Server** column on the > **Users > Users** page displays (**Uploaded User**) for these users. The first time this user logs into the Connection Broker, the **Authentication Server** column updates with the name of the remote authentication server used to authenticate the user and assign a policy.

- **Sun Ray:** Leostream Connect 1.5 and Leostream Agent 1.1 are configured to work together on Sun Ray servers. Older versions of Leostream Connect are not compatible with Leostream Agent 1.1 when used in a Sun Ray session. If you must use an older version of Leostream Connect, contact [support@leostream.com](mailto:support@leostream.com) for the previous version of the Leostream Sun Ray Session scripts.

If you upgrade an existing SRSS to use Leostream Connect 1.5, you do not need to replace your Leostream Sun Ray Session scripts with the Leostream Agent. Leostream Connect 1.5 first tries to communicate with the Leostream Agent. If version 1.1 of the Leostream Agent is not installed, Leostream Connect uses the deprecated Leostream Sun Ray Session scripts.

- **Leostream Agent:** The end-user experience and single sign-on installation tasks can now be run when installing Leostream Agent 4.5 on a desktop with other single sign-on solutions already installed, such as those from Novell or HP.

## Leostream Agent 4.5.42 – Microsoft Windows Version

Version 4.5 is the current version of Leostream Agent for Windows operating systems. The point release contains the following enhancements.

- Provides the Connection Broker with location information for HP blades
- WoW64 support added to the multi-display feature, allowing the Leostream Agent installed on a 64-bit platform to correctly position windows associated with a 32-bit application
- Additional improvements to multi-display support for cases where the Windows taskbar is minimized
- Now report IP address changes to the Connection Broker, to resolve issues with stale IP addresses for virtual machines that were suspended or off and subsequently had their DHCP lease expire
- Resolved issues around installing new versions of Leostream Agent over existing Leostream Agents
- Resolved issues pertaining to Microsoft Hyper-V installations

# Upgrading your Connection Broker

## Upgrading from Version 5.3.x to Version 6.3

To upgrade to Connection Broker 6.3 from version 5.3 you must, first, update your 5.3 Connection Brokers to the latest patch version. See “Updating the Connection Broker” in the [Connection Broker Administrator’s Guide](#) for detailed instructions on upgrading the 5.3 Connection Broker.

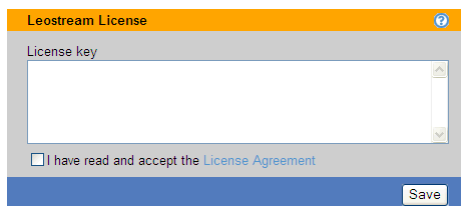
**Note:** Connection Broker 6.3 requires a new license key. Please, contact [sales@leostream.com](mailto:sales@leostream.com) to convert your existing key to the new format.

Connection Broker 6.x introduces a new Web interface design. If upgrading from 5.3, for best results, close any existing Connection Broker Web interfaces, and clear your Web browser’s cache before you launch the new Connection Broker Web interface. If your Connection Broker Web interface does not render correctly, press **CTRL-Refresh** to reload the page.

## Upgrade Instructions when Using an Internal Database

If your 5.3.x Connection Broker runs with an internal database, upgrade to the 6.3 Connection Broker, as follows.

1. Change the **Refresh Interval** of all your centers to **Manual**.
2. Back up your existing 5.3.x Connection Broker database.
3. After you have updated your old Connection Brokers to the latest 5.3.x patch, go to the **> System > Maintenance** page.
4. Select the **Download** option.
5. Click **Next**.
6. Save the Connection Broker configuration.
7. Use the **Shutdown** option on the **> System > Maintenance** page to shut down your 5.3.x Connection Broker.
8. Back up your 5.3 Connection Broker.
9. Install the 6.3 Connection Broker.
10. When you sign into the 6.3 Connection Broker, the **Leostream license** page, shown in the following figure, appears. Enter your new 6.3 license key.



Connection Broker 6.3 will not accept previous versions of the Leostream license. If you are upgrading from Connection Broker 5.3, you must obtain a new license from Leostream.

11. Select the **I have read and accept the License Agreement** option.

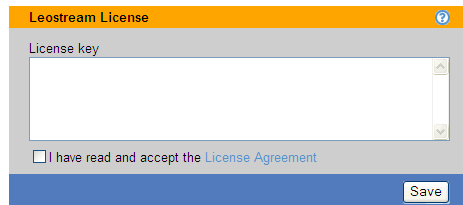
12. Click **Save**.
13. In the new Connection Broker, go to the > **System > Maintenance** page.
14. Select the **Restore** option.
15. Browse to the file you saved from your previous Connection Broker, and restore the database.

Your version 6.3 Connection Broker now contains all the information from your 5.3 version. Please, scan through the Web interface to ensure no information was lost. If you encounter problems, and have a current support contract or evaluation agreement, contact the support team at [www.leostream.com/support](http://www.leostream.com/support).

## Upgrade Instructions when Using an External Database

If your 5.3.x Connection Broker runs with an external Microsoft SQL Server® 2005 database, upgrade to the 6.3 Connection Broker, as follows

1. Change the **Refresh Interval** of all your centers to **Manual**.
2. Shut down all 5.3.x Connection Brokers that point to your SQL Server database. (You can use the **Shutdown** option on the > **System > Maintenance** page to shut down your Connection Brokers.)
3. Back up your existing 5.3.x Connection Broker database.
4. Install the 6.3 Connection Broker.
5. When you sign into the 6.3 Connection Broker, the **Leostream license** page, shown in the following figure, appears. Enter your new 6.3 license key.



**Note:** Connection Broker 6.3 will not accept a Connection Broker 5.x license key.

6. Select the **I have read and accept the License Agreement** option.
7. Click **Save**.
8. Again, in the > **System > Maintenance** page, select **Switch database**.
9. Select the **External database** option.
10. Enter the information for your existing 5.3.x Connection Broker data base. A warning appears, indicating that the 5.3.x database will be upgraded to the 6.3 format.
11. Accept the warning to upgrade the database. The upgrade is not reversible.

**Note:** Once the database is upgraded, it cannot be connected back to a 5.3.x Connection Broker.

Your version 6.3 Connection Broker now contains all the information from your 5.3 version. Scan through the Web interface to ensure no information was lost. If you encounter problems, and have a current support contract or evaluation agreement, contact the support team at [www.leostream.com/support](http://www.leostream.com/support).

## Upgrading from Version 5.2.x to Version 5.3.x

The upgrade to Connection Broker 5.3 from version 5.2 requires a reinstall of the Connection Broker. The following Web site contains the Connection Broker 5.3 virtual appliances.

[www.leostream.com/cb/index53sp3.php](http://www.leostream.com/cb/index53sp3.php)

To upgrade a version 5.1.x or 5.2.x Connection Broker to version 5.3, you must, first, update your 5.1 or 5.2 Connection Brokers to the latest 5.2.10 version. See “Updating the Connection Broker” in the [Connection Broker Administrator’s Guide](#) for detailed instructions on upgrading the 5.2 Connection Broker.

### Upgrade Instructions when Using an Internal Database

If your 5.2.x Connection Broker runs with an internal database, upgrade to the 5.3.x Connection Broker, as follows.

1. After you have updated your Connection Brokers to the latest 5.2.x patch, go to the > **System > Maintenance** page.
2. Select the **Download** option.
3. Click **Next**.
4. Save the Connection Broker configuration.
5. Shut down and back up your 5.2.x Connection Broker.
6. Download the Connection Broker 5.3.x file.
7. Install the 5.3.x Connection Broker.
8. In the new Connection Broker, go to the > **System > Maintenance** page.
9. Select the **Upload** option.
10. Browse to the file you saved from your previous Connection Broker.

Your version 5.3 Connection Broker now contains all the information from your 5.2 version. Please, scan through the Web interface to ensure no information was lost. If you encounter problems, and have a current support contract or evaluation agreement, contact the support team at [www.leostream.com/support](http://www.leostream.com/support).

### Upgrade Instructions when Using an External Database

If your 5.2.x Connection Broker runs with an external Microsoft SQL Server® 2005 database, upgrade to the 5.3.x Connection Broker, as follows

1. Back up your existing 5.2.x Connection Broker database.
2. Shut down all 5.2.x Connection Brokers that point to this database.
3. Download the Connection Broker 5.3.x file.
4. Install the 5.3.x Connection Broker.
5. In the new Connection Broker, go back to the > **System > Maintenance** page.
6. Select **Switch database**.
7. Select the **External database** option.

8. Enter the information for your 5.2.x Connection Broker data base. A warning appears, indicating that the 5.2.x database will be upgraded to the 5.3.x format.
9. Accept the warning to upgrade the database. The upgrade is not reversible.

**Note:** Once the database is upgraded, it cannot be connected to a 5.2.x Connection Broker.

Your version 5.3 Connection Broker now contains all the information from your 5.2 version. Please, scan through the Web interface to ensure no information was lost. If you encounter problems, and have a current support contract or evaluation agreement, contact the support team at [www.leostream.com/support](http://www.leostream.com/support).