



Connection Broker

Where Virtual Desktops Meet Real Business

Release Notes

Version 7.x
January 16, 2013

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Connection Broker 7.6.46 – Release Notes

Connection Broker 7.6.46 is a minor update to Connection Broker 7.6.46, 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

Resolved Issues

- Offer assigned desktops with a `Rebooting` power status.
- Address issues with follow-me mode for PCoIP connections to blades running a Linux operating system.
- Allow users to tap out of their desktop using their RF IDEas proximity card when the user logged in using the username and password over-ride option.

Connection Broker 7.6.42 – Release Notes

Connection Broker 7.6.42 is an update to Connection Broker version 7.6.26. 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.

Connection Broker 7.6.42

The following new features are described in the noted sections in the [Connection Broker Administrator's Guide](#), unless a different guide is specifically indicated.

Features

The following Leostream Components have been upgraded:

- **Database mirror-awareness:** The Connection Broker now allows administrators to specify a database mirror server for their primary Microsoft SQL Server database. By making the Connection Broker *mirror-aware*, the Broker automatically switches to the new database after a role switch occurs. See "Database Mirroring" in Chapter 18 of the [Connection Broker Administrator's Guide](#).



The Connection Broker no longer supports hyphens or other illegal characters in the SQL Server database name.

- **Switching databases:** The **> System > Maintenance** option pertaining to switching between internal and external databases has been separated into two options. See "Switching databases" in Chapter 20 of the [Connection Broker Administrator's Guide](#).
- **RGS connections:** Protocol plans now allow administrators to specify alternate dynamic tags for the user's login name for the RGS connection. Previously, the user's login name was always identical to the login name used for the Connection Broker. See "HP RGS Protocol Plan Options" in the "HP Remote Graphics Software" section of the Leostream guide to [and Using Display Protocols](#).
- **Mapping user login names:** Additional dynamic tags can now be used in place of the user's login name in protocol plans, to facilitate logging the user into their remote desktop with different credentials than used to log into the Connection Broker. See "Using Different Login Names for User Connections" in Chapter 10 of the [Connection Broker Administrator's Guide](#).
- **Dynamic tags:** The `{USER}` dynamic tag now supports a `lowercase` and `uppercase` modifier, to

map the case of the text entered by the user to all lower or upper case, respectively. See “Using Dynamic Tags” in Chapter 10 of the [Connection Broker Administrator’s Guide](#).

- **Leostream Connect failover (beta):** The new **Instruct Leostream Connect to store assignments and connection information** policy option enables the Leostream Connect failover feature, which stores connection information to use in the event the client cannot communicate with the Connection Broker.



This feature is not supported for Leostream Connect for Windows, and requires the 2.4 beta version of Leostream Connect for Linux. Please, contact sales@leostream.com for more information.

- **Deleting records:** The Connection Broker now removes deleted records from the database after a predefined number of days. Previously, deleted records were indefinitely retained, negatively effecting the performance of drawing pages and downloading Connection Broker logs.

Resolved Issues

- Various hardware-based PCoIP connection issues:
 - PCoIP connections to Linux desktops are no longer disconnected when a different user logs out of their SSH session to that desktop.
 - PCoIP clients no longer show desktop assignments after the desktop is released
 - Do not attempt to lock the desktop on PCoIP disconnect if the desktop is not assigned to the user
- Client locations can now be created using the `is not equal to` condition with a value of `Windows (any version)`.
- Ensure that assigned desktops that are starting, resuming, or rebooting are offered to users when the user’s policy selects `No` for the **Offer stopped and suspended desktops** option. Only desktops with a power status of `Stopped` are excluded from the offer list.
- The provisioning option to place new virtual machines in the datastore with the most free space now correctly determines free space and distributes new virtual machines, accordingly.
- A user can now be assigned a policy when they are a member only of the Domain Users group.
- Ensure that `portmap` is installed to support NIS authentication. Also, correctly use the domain name of the NIS authentication server.
- The test login feature is now available for users that are authenticated by a NIS server.
- Release plan options to disconnect idle desktops now function properly for HDX connections.
- Retry XenDesktop calls during Center scan and poll jobs to ensure that the centers are not incorrectly marked as offline.

Database Changes

Version 7.6.42 adds fields to the following tables in the Connection Broker databases, when compared to Connection Broker version 7.6.26

- `db_info`
- `plan_protocol`
- `policy`

Connection Broker 7.6.26 – Release Notes

Connection Broker 7.6.26 is an update to Connection Broker version 7.6.20. 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.

Connection Broker 7.6.26

The following new features are described in the noted sections in the [Connection Broker Administrator's Guide](#), unless a different guide is specifically indicated.

Features

- The following Leostream Components have been upgraded:
 - Leostream Connect for Windows – version 2.9.104: Added DNS name support for `-address` command line parameter.
 - Leostream Connect for Linux – version 2.3.59: New `enable_input_methods` parameter for `lc.conf` files provides a workaround when experiencing **Password** field issues on a Linux system due to a bug in JDK 6. Leostream Connect now handles exceptions that occur when the log files are full, but cannot be rotated due to user permission restrictions.
 - Leostream Agent for Linux – version 1.5.56: Better session management for RGS, NX, and console sessions.
- The **> System > Logs** page now contains detailed entries when any Leostream Agent status changes.
- Usability enhancements:
 - All pages containing lists (such as the **> Resources > Desktops** page) now contain a link to clear all global and column filters, making it easier to reset the list's contents after filters are applied.
 - The performance of page drawing for filtered lists has been improved.

Resolved Issues

- The Connection Broker now releases a desktop back to its pool if the user is unable to connect to that desktop because the desktop failed to power up. The next time the user logs into the Connection Broker, the Connection Broker gives lower preference to desktops that failed to start properly.
- The Connection Broker now schedules a restart job, when appropriate, for desktops that were powered down during a Leostream Connect session. Previously, the Connection Broker was not scheduling a restart job if the user had a power control plan to power down their desktop after logging out of the desktop, and the user tried to reconnect to that desktop during the same Leostream Connect session.
- Users are no longer immediately disconnected from RGS sessions due to incorrect session handling by the Leostream Agent.
- The Connection Broker now clears a desktop's hostname and IP address when the desktop is powered on, and repopulates the hostname and IP address with the new values reported by the desktop. The Connection Broker does not clear a desktop's hostname or IP address when the desktop is powered down. Therefore, if the desktop is assigned an IP address via DHCP and the lease expires, the IP address for that desktop is updated only after the desktop is powered on.

- The Connection Broker now correctly populates the hostname and IP address field for Terminal Server sessions when upgrading from older versions of the Connection Broker.
- The Connection Broker no longer sets the MAC address to unknown if VMware Tools is not installed on the virtual machine

Connection Broker 7.6.20 – Release Notes

Connection Broker 7.6.20 is an update to Connection Broker version 7.5.56. 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.



During the upgrade, the **Click here to view upgrade progress** link may become temporarily unavailable while underlying Connection Broker components are being upgraded. If you receive an error when clicking this link, please try the link until again. Although you may receive an error upon clicking the link, the upgrade is proceeding properly and completes successfully.

Connection Broker 7.6.20

The following new features are described in the noted sections in the [Connection Broker Administrator's Guide](#), unless a different guide is specifically indicated.

Features

- **Citrix XenDesktop 5 Support:** The Connection Broker can now establish HDX connections using the new Citrix XenDesktop 5 centers (see "Citrix XenDesktop Centers" in Chapter 5).
- **Cloud Desktop Integration:** Leostream Cloud Desktops centers allow you to manage desktops in the public cloud alongside resources hosted in your own datacenter. See [Cloud Desktops](#) for more information.
- **Leostream Clients and Agents:** The **> Status > Downloads** page contains new versions of all Leostream Connect clients and Leostream Agents. See the Leostream Connect and Leostream Agent Administrator Guides for more information on the new features in these components.
- **Release Plans and Power Control Plans for Idle Desktops:** Release Plans and Power Control Plans contain the new **When Desktop is Idle** section, allowing administrators to perform actions on desktops based on user idle time and system CPU levels (requires Leostream Agent 5.2 be installed and running on the desktop). See "Chapter 10: Building Pool-Based Plans".
- **RF IDEas Proximity Card Support** (see "HID Proximity Card Authentication with RF IDEas pcProx® Readers" in the [Leostream Connect Administrator's Guide and End User's Manual](#)):
 - Users' proximity card numbers can now be stored in the Connection Broker, as well as in Active Directory.
 - Proximity card logins with Leostream Connect now support authentication with a user-defined PIN.
- **Application Window Positioning:** Display Plans contain a new option to let users save and restore application window positions, allowing users to create different application layouts for clients with different numbers of attached displays (see "Creating Display Plans" in Chapter 12).



Leostream Display Plans have been redesigned to support this feature. Please, see "Creating Display Plans" for a complete description of using the new Display Plan functionality. For information

on how end users save and restore application window positions, see “Saving and Restoring Application Dialog Positions” in the [Leostram Agent Administrator’s Guide](#).

- **SNMB:** The Leostream MIB now contains additional OIDs, allowing administrators to more easily identify the source of Leostream traps (see “Issuing SNMP Traps” in Chapter 19).
- **NoMachine Session Shadowing:** Users can now specify an expiration time when sending on invitation to shadow their NoMachine NX session (see “Using NoMachine NX Collaboration” in Chapter 15).
- **User Configurable NX Parameters:** Protocol plans now allow users to configure the NX configuration parameters for session spanning and floating windows. See “NoMachine NX Client” in the [Guide to Choosing and Using Display Protocols](#).
- **Releasing Desktops:** The Connection Broker now prompts administrators for confirmation when manually releasing desktops on the **> Resources > Desktops** page. See “Manually Releasing Desktops” in “Chapter 6: Working with Desktops and Applications”.
- **Database support:** Connection Broker 7.6 supports Microsoft SQL Server 2012 as an external database. See “Using an External Database” in “Chapter 18: Scaling Deployments”.
- **Deleting Work Queue Jobs:** The **Bulk action** column on the **> System > Job Queue** page now provides an option to cancel individual pending or running work queue jobs (see “Purging Pending and Running Jobs” in Chapter 19).
- **Leostream Technical Support logs:** The Connection Broker virtual appliance console now provides an option to package the Leostream Technical Support logs, for cases where the Leostream Web server is not running (see “Log Options” in the [Connection Broker Virtual Appliance Administrator’s Guide](#)).
- **Leostream Connect Settings:**
 - The **Add domain field to login page** option on the **> System > Settings** page now applies to all Leostream Connect clients, as well as the Leostream Web client. See “Enabling Authentication Server Features” in “Chapter 3: Configuring Connection Broker Settings”.
 - The **Allow user to manually lock client workstation** now applies to all Leostream Connect installations, instead of only when running Leostream Connect in the Windows shell. See the [Leostream Connect Administrator’s Guide and End User’s Manual](#) for more information.
- **Usability:**
 - The **Edit Desktop** page contains a new link to easily download the desktop’s Leostream Agent logs
 - The **Edit Authentication Server** page contains a new link to easily navigate to the associated policy assignment table
 - The **Edit Policy** page contains new links to easily navigate to the protocol plans used in the policy
 - The **> System > Log** page now draws faster when displaying large amounts of data

Resolved Issues

- **Domain settings:**
 - The Connection Broker now sends the Authentication Server's Domain name, if specified, to client devices that display the **Domain** field. If multiple Authentication Servers have the same Domain, the Connection Broker searches for the user in all Authentication Servers. If no Domain name is specified, the Connection Broker passes the Authentication Server name.
 - If the user types a specify domain name into their **Login** dialog, the Connection Broker now honors that domain name instead of replacing it with the Authentication Server name.
- LDAP attribute names used in the > **Users** > **Assignment** tables are no longer case sensitive.
- Attempting to open the **Customize** dialog for the > **Resources** > **Desktops** page no longer results in errors when using Microsoft Internet Explorer Web browsers.
- Downloaded Leostream Technical support logs no longer occasionally omit tables.
- Issues connecting to Active Directory servers over SSL are resolved.
- The detection of duplicate records from multiple centers has been improved.
- Management of hardware-based PCoIP connections has been improved.


Database Changes

Version 7.6.20 adds fields to the following tables in the Connection Broker databases, when compared to Connection Broker version 7.5.56

- `display_list`
- `invite`
- `plan_release`
- `plan_power_control`
- `policy`
- `user`

Leostream Connect for Microsoft® Windows® Operating Systems – Version 2.9.101


Features

- **USB drivers:** Leostream Connect 2.9 includes a new version of the USB drivers used for USB device redirection. These new drivers are compatible with the USB drivers in version 5.2 of the Leostream Agent for Windows desktops and version 1.5 of the Leostream Agent for Linux desktops.
 These new drivers are not backwards compatible. You must upgrade the Leostream Agents on all remote desktops, if you use Leostream USB redirection.
- **RF IDEas Proximity Card Support:** Users can now log in to Leostream Connect and the Connection Broker using their HID proximity card and a user-defined PIN.
- **Domain field:** Leostream Connect now honors the Connection Broker **Add domain field to login page** option, which adds or removes the **Domain** field from the **Login** dialog.

- **Command line parameters:**
 - The `/cb` parameter can now be used to specify the Connection Broker address when launching Leostream Connect from the command line.
 - The `/norun` installer parameter can now be used to prevent the installer from running Leostream Connect immediately after the installation completes.
 - The Leostream Connect installer can be run with the `updateservice` task to install the Leostream Update service.
- **Locking client workstations:** The **Lock workstation** option is now available for any Leostream Connect installations, not only when running in shell mode (requires activation on the Connection Broker > **System** > **Settings** page).
- **Client idle time actions:** Leostream Connect can automatically lock the user's workstation and potentially close all their open desktop connections when the user's client workstation is idle (requires activation on the Connection Broker > **System** > **Settings** page).
- **Leostream update service:** The Leostream Update service allows non-administrative users to update the Leostream Connect client when an update is pushed out from the Connection Broker.
- **Logs:**
 - Leostream Connect can now obfuscate usernames, domains, machine names, and computer addresses when writing to its logs.
 - The path to the log file can now include environment variables.

Leostream Connect for Linux® Operating Systems – Version 2.3.54

Features

- **USB drivers:** Leostream Connect 2.3 includes a new version of the USB drivers used for USB device redirection. These new drivers are compatible with the USB drivers in version 1.5 of the Leostream Agent for Linux desktops and version 5.2 of the Leostream Agent for Windows desktops.
 These new drivers are not backwards compatible. You must upgrade the Leostream Agents on all remote desktops, if you use Leostream USB redirection. Please see the **of Interest** for comments on upgrading Leostream Connect on Linux clients running an operating system derived from the Red Hat Enterprise Linux distribution.
- **USB support:**
 - Leostream USB redirection now supports Linux kernels up to version 3.2.5.
 - Leostream USB redirection now supports 64-bit version of Linux operating systems.
- **Domain field:** Leostream Connect now honors the Connection Broker **Add domain field to login page** option, which adds or removes the **Domain** field from the **Login** dialog.

Points of Interest

- The `remove_domain` parameter in `lc.conf` files is obsolete. Use the global Connection Broker **Add domain field to login page** option to show or hide the domain field on Leostream Connect.
- If you installed Leostream Connect 2.2 on a client running an operating system derived from the Red

Had Enterprise Linux distribution *and* you installed the USB component of Leostream Connect, you must manually uninstall the Leostream USB module before upgrading Leostream Connect. You can use the following commands to prepare your client for upgrade:

1. Execute the following command: `chkconfig lsusbd --del`
2. Optionally, run: `rm /etc/init.d/lsusbd`
3. Reboot the client

After the reboot, you can successfully upgrade Leostream Connect.

Leostream Agent for Microsoft® Windows® Operating Systems – Version 5.2.115

Features

- **USB drivers:** Leostream Agent 5.2 includes a new version of the USB drivers used for USB device redirection. These new drivers are compatible with the USB drivers in version 2.9 of Leostream Connect for Windows desktops and version 2.3 of Leostream Connect for Linux desktops.



These new drivers are not backwards compatible. You must upgrade Leostream Connect on all clients, if you use Leostream USB redirection.

- **Application Window Positioning:** The Leostream Agent supports the new Display plan option to allow the user to save and restore the location of open application windows.
- **User and CPU Idle Time Monitoring:**
 - The Leostream Agent can now monitor user idle time, in support of the **When Desktop is Idle** Release Plan options.
 - The Leostream Agent can now monitor the system CPU usage on a per user basis, in support of the CPU threshold features in Connection Broker release plans.
- **Logs:** The Leostream Agent can now obfuscate usernames, domains, machine names, and computer addresses when writing to its logs.
- **SSL:**
 - The Leostream Agent now uses openssl version 1.0.1.
 - The **Enable SSL** option is no longer available in the Leostream Agent Control Panel dialog. The Leostream Agent now always attempts to communicate with the Connection Broker using SSL.

Point of Interest

The Leostream Agent Control Panel dialog no longer provides an option to enable and disable SSL. The Leostream Agent always attempts to communicate with the Connection Broker using SSL. If the Leostream Agent cannot communicate with the Connection Broker using SSL, the agent fails over to non-SSL communication.

Leostream Agent for Linux® Operating Systems – Version 1.5.49

- **USB drivers:** Leostream Agent 1.5 includes a new version of the USB drivers used for USB device redirection. These new drivers are compatible with the USB drivers in version 2.3 of Leostream Connect for Linux desktops and version 2.9 of Leostream Connect for Windows desktops.



These new drivers are not backwards compatible. You must upgrade Leostream Connect on all clients, if you use Leostream USB redirection. Please see the **of Interest** for comments on upgrading the Leostream Agent on Linux desktops running an operating system derived from the Red Hat Enterprise Linux distribution.

- **USB support:**
 - Leostream USB redirection now supports Linux kernels up to version 3.2.5.
 - Leostream USB redirection now supports 64-bit version of Linux operating systems.
- The Leostream Agent now reports users logged into a console sessions, allowing release plans to forcefully log out console sessions such as VCN and PColP

Point of Interest

If you installed Leostream Agent 1.4 on a desktop running an operating system derived from the Red Hat Enterprise Linux distribution *and* you installed the USB component of the Leostream Agent, you must manually uninstall the Leostream USB module before upgrading the Leostream Agent. You can use the following commands to prepare your desktop for the upgrade:

1. Execute the following command: `chkconfig lsusbd --del`
2. Optionally, run: `rm /etc/init.d/lsusbd`
3. Reboot the desktop

After the reboot, you can successfully upgrade the Leostream Agent.

Connection Broker 7.5.56 – Release Notes

Connection Broker 7.5.56 is an update to Connection Broker version 7.5.40. This release includes the following resolutions and enhancements.

- This release addresses multiple issues related to the connection and management of Teradici hardware-based PColP session, including issues related to SSL.
- The Connection Broker can again successfully connect to Active Directory servers that are communicating using SSL.
- The **customize** link on the **> Resources > Desktops** page can now be used on Microsoft Internet Explorer 8 when all desktop parameters are displayed in the list.
- The **> System > Network** page now correctly fails over to secondary and tertiary DNS server when using an external database.
- The detection of duplicate desktops from multiple centers has been simplified and improved.
- The Connection Broker now identifies and labels desktops running Red Hat Enterprise Linux 6.
- The virtual appliance OpenSSL component has been updated to version 0.9.8x




Connection Broker 7.5.40 – Release Notes

Connection Broker 7.5.40 is an update to Connection Broker version 7.5.22. 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.

Connection Broker 7.5.40

The following new features are described in the noted sections in the [Connection Broker Administrator's Guide](#), unless a different guide is specifically indicated.

Features

- **Leostream Connect for Linux:** Version 2.2.59 supports the new feature to hide the Leostream Connect hover menu after the user locks one of their remote desktops.
- **Citrix XenApp Services Site Integration:**
 - Leostream policies now provide the option to offer desktops, applications, or desktops and applications offered to a user from a XenApp Services Site. Previously, Leostream offered only desktops.
 - Leostream now always launches HDX connections to resources offered from a Citrix XenApp Services Site using the Citrix online plug-in.
- **Citrix XenApp Data Collector Support:** XenApp centers can now load balance published applications using XenApp 6 Data Collectors.
- **Session Expiration (beta):** Policies provide a new option to expire the user's Leostream session as soon as the user locks one of their connected desktops.
 Using this feature requires the beta version of Leostream Connect 2.9 for Windows operating systems. Please, contact support@leostream.com for more information.
- **Policies:** Policies contain a new option to hide the Leostream Connect hover menu whenever the user locks one of their connected desktops.
 This feature is supported with Leostream Connect 2.2.59 for Linux.
- **Client-side idle time actions:** The > **System** > **Settings** page allows administrators to provide end-users with default actions to take when the client device running Leostream Connect is idle. These actions include locking the client workstation and closing all open desktop connections.
 Using this feature requires the beta version of Leostream Connect 2.9 for Windows operating systems. Please, contact support@leostream.com for more information.
- **Protocol plans:** For desktops with multiple network addresses, you can use the new `{MATCHED_IP}` dynamic tag to instruct the Connection Broker to connect to the desktop using the IP address starting with a specified value (see "Specifying a Subnet for Desktop Connections").

Resolved Issues

- If the Connection Broker locates a user in an authentication server and that user's account is locked,

the Connection Broker no longer searches through the remaining authentication servers.

- This release addresses a number of minor issues related to hardware-based PCoIP connections and Citrix HDX connections.
- For backwards compatibility, the `{DOMAIN}` dynamic tag now defaults to the user-entered value if the authentication server does not have a specified domain name.
- The Connection Broker now correctly switches back to SSL communications when using Leostream Agent 5.1.
- Display the correct status in the **User Connected** column of the **> Resources > Desktops** page.

Database Changes

Version 7.5.40 adds the following tables to the Connection Broker databases, when compared to Connection Broker version 7.5.22.

- `general_config`
- `policy`
- `user_session`
- `vm`
- `vm_registration`

In addition, the type has changed for the `display_mode` field in the `policy_assignment` table.

Connection Broker 7.5.22 – Release Notes

Connection Broker 7.5.22 is an update to Connection Broker version 7.0.x. 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.

Connection Broker 7.5.22

The following new features are described in the noted sections in the [Connection Broker Administrator's Guide](#), unless a different guide is specifically indicated.

Features

- **Citrix XenDesktop Support**
 - The Connection Broker can now deliver XenDesktop and XenApp desktops offered to a user by a Citrix XenApp Services Site (see "Offering Resources from a Citrix XenApp Services Site")
 - New Citrix XenDesktop centers allow the Connection Broker to push desktop assignments to a Citrix Desktop Delivery Controller (DDC), in order to establish HDX connections to resources managed by Leostream (see "Citrix XenDesktop Centers")
 - The Leostream functionality to push desktop assignments into the Citrix DDC can now be used to establish HDX connections through a Juniper Networks SSL VPN device (see "Configuring Juniper Networks Roles")
- **Red Hat Enterprise Virtualization 3.0 Support**
 - The Connection Broker now ships as a virtual appliance that can be installed into a KVM-based hypervisor using the Red Hat Enterprise Virtualization Manager (see the [Leostream Installation Guide](#))
 - Red Hat Enterprise Virtualization Manager centers allow the Connection Broker to natively inventory, power control, and assign virtual machines hosted in Red Hat Enterprise Virtualization for Desktops (see "Red Hat Enterprise Virtualization Manager Centers")
 - Protocol plans now support SPICE connections (see "Red Hat SPICE" in the Leostream Guide for [Choosing and Using Display Protocols](#))
- **NoMachine NX Enhancements** (see "NoMachine NX Client" in the Leostream Guide for [Choosing and Using Display Protocols](#))
 - Administrator can now permit users to shadow other user's NX sessions
 - Connection Broker administrators can now allow end users to configure a subset of NX configuration parameters, including window manager, resolution, and connection type
- **Backup Pool Enhancements** (see "Specifying Backup Pools")
 - Backup pools in policies now can be invoked when the primary pool has exhausted its store of available desktops
 - Backup pools now can be invoked based on multiple criteria, including a failed Leostream Agent port check, failed remote viewer port check, or primary pool exhaustion
 - Desktops assigned from backup pools now can have different release, protocol, and power

- control plans than the desktops assigned from the primary pool
- Backup pools can now be used in policies that offer desktops from multiple pools, as long as the pool offers a single desktop
- The Connection Broker now performs the backup pool check on desktops that are already assigned to the user, to ensure that persistently assigned desktops honor backup pool rules
- **Nested Client Locations** Client locations can now be created in a hierarchy, providing more control and flexibility (see “Creating Locations”)
- **Authentication Server Enhancements:**
 - NTLM can now be enabled on multiple authentication servers in the Connection Broker (see “Single Sign-on Using NTLM Authentication”)
 - Authentication servers now have a separate **Domain** field, allowing you to define multiple authentication servers in the same domain (see “Chapter 13: Authenticating Users”)
 - The {DOMAIN} dynamic tag is now replaced with the entry in the **Domain** field of the associated authentication server, unless the **Domain** field is empty, in which case the Connection Broker replaces this dynamic tag with the authentication server name (see “Using Dynamic Tags”)
- **Pools:**
 - New display name field for pools can be used in policies to display a user-friendly pool name when offering desktops to users (see “Creating Desktop Pools”)
 - Detail pages for pool content now include information on which Center contains the desktop
 - The > **Resources** > **Pools** page contains a new **In Use** column, indicating if the pool is used in a policy
 - The **Edit Pool** page now indicates which policies include the pool
- **Release Plans:** Desktops can now be released from the user at specified times and days of the week (see “Releasing Desktops at Specific Times and Days”)
- **Policies:**
 - New policy option to launch resource connections established from the Leostream Web client in a new Web browser (see “Launching Connections in New Windows”)
 - New policy option to restrict offering desktops from particular pools based on a user’s Active Directory attributes (see “Setting Rules for Selecting Desktops from Pools”)
- **Protocol Plans:**
 - Protocols that use a Java applet to establish the resource connection now allow you to specify `window.open` parameters for Web client connections that open in new windows (see “Launching Connections in New Windows”)
 - New protocol plans now default to selecting only Microsoft RDP, to simplify editing plans
 - The Web browser section of the protocol plans can be configured to launch the native NX client instead of the NX Java applet client (see “NoMachine NX Client” in the Leostream Guide for [Choosing and Using Display Protocols](#))
- **Users:** The user’s Active Directory attributes are now captured and displayed on the **Edit User** page after the user logs in to the Connection Broker

- **Proximity Card Support:** Leostream Connect users can now use HID proximity cards with RF IDEas proximity card readers to log into the Connection Broker (see “HID Proximity Card Authentication with RF IDEas pcProx© Readers” in the [Leostream Connect Administrator’s Guide and End User’s Manual](#))
- **Leostream Web Client:**
 - The Web client now honors the user’s policy setting for session expiration (see “Adding a New Policy and Configuring General Policy Options”)
 - User policies can now indicate that Web client connections should open in a new Web browser window (see “Launching Connections in New Windows”)
 - Users can now launch multiple resource connections from the Web client
- **General Settings for Leostream Connect:**
 - The **> System > Settings** page now includes a Leostream Connect option to log out users of the client after they close their last resource connection (see “Configuring Leostream Connect”)
 - The new **Use Device UUID to uniquely identify clients** option on the **> System > Settings** page allows you to specify how the Connection Broker identifies unique clients on the **> Clients > Clients** page (see “Configuring Leostream Connect”)
 - New option to allow users to lock their client workstation when Leostream Connect is running in the Windows shell (see “Using Shell Mode” in the [Leostream Connect Administrator’s Guide and End User’s Manual](#))
- **SNMP:**
 - You can now specify multiple SNMP server addresses (see “Issuing SNMP Traps”)
 - A new log message and SNMP trap now occurs when the Connection Broker loses connection with its database
- **NTP:** You can now enter multiple NTP server addresses
- **Power scans:** Power scans for Active Directory centers now check only the ports associated with protocols used in the protocol plans (see “Active Directory Centers”)
- **Desktops:** Desktop records include separate fields for hostname and IP address
 - ✓ You must complete a scan for all your centers before the new hostname and IP address fields are correctly populated
- **Logs:** The **> System > Logs** page can now be sorted based on the `(Connection Broker)` user
- **Dynamic tags:**
 - The `{REMAPPED_IP}` dynamic tag can now be formatted to perform DNS resolution without remapping the IP address (see “Dynamic Remapping of Desktop IP Address”)
 - New `{IP_ADDRESS-or-HOSTNAME}` and `{HOSTNAME-or-IP_ADDRESS}` can be used in protocol plans to indicate what attribute the Connection Broker should use to connect to the desktop (see “Using Dynamic Tags”)

Resolved Issues

The following list contains a sample of the issues resolved after the release of the previous 7.0.104 Connection Broker update.. For information regarding these, or other, issues, please contact support@leostream.com.

- The > **System > Cluster Management** page now correctly includes an option to perform time synchronization using VMware tools if the Connection Brokers are installed on a VMware virtualization platform.
- When uploading users, the log entry on the > **System > Logs** page was incorrectly showing the Role and Policy of the user who added the user. The logs now show the correct Role and Policy for the user being added.

Database Changes

Version 7.5.22 adds the following tables to the Connection Broker databases, when compared to Connection Broker version 7.0.104.

- `configurable_parameter`
- `configurable_parameter_setting`
- `invite`
- `plan_protocol_config_param`

Version 7.5.22 adds fields to the following tables in the Connection Broker databases, when compared to Connection Broker version 7.0.104.

- `client_group`
- `general_config`
- `maintenance`
- `plan_protocol` (A field for with the beta support of XenDesktop was also removed from this table)
- `plan_release`
- `policy`
- `policy_assignment`
- `pool`
- `remote_authentication`
- `role`
- `user`
- `vm`

In addition, the type has changed for the following fields:

- `backup_pool_criteria` in `policy_assignment` table
- `ip` in the `ntp_server` table
- `logout_url` in the `general_config` table
- `ip` in the `snmp` table

Leostream Connect for Microsoft® Windows® Operating Systems – Version 2.8.118

Features

- **USB drivers:** Leostream Connect 2.8 includes a new version of the USB drivers used for USB device redirection. These new drivers are compatible with the USB drivers in version 5.1 of the Leostream Agent for Windows desktops and version 1.4 of the Leostream Agent for Linux desktops, enabling USB device redirection from Windows clients to Linux remote desktops.



These new drivers are not backwards compatible. You must upgrade the Leostream Agents on all remote desktops, if you use Leostream USB redirection.

- **NX Connections:** Leostream Connect supports the new Connection Broker feature to allow end users to configure a subset of NoMachine NX configuration parameters (see “NoMachine NX Client” in the Leostream Guide for [Choosing and Using Display Protocols](#))
- **RF IDEas Proximity Cards:** Users can now log in using proximity cards from RF IDEas (see “HID Proximity Card Authentication with RF IDEas pcProx© Readers” in the [Leostream Connect Administrator’s Guide and End User’s Manual](#))
- When running in the Windows shell, Leostream Connect now allows users to lock their client workstation
- The **About** tab no longer displays on the **Options** dialog when Leostream Connect is installed to run as the Windows shell
- When Leostream Connect is installed to run as the Windows shell, the new registry key `HoverMenuDelay` specifies the amount of time (in milliseconds) to wait before displaying the Leostream Connect hover menu
- The command line parameter to specify the Connection Broker address when running Leostream Connect now honors the Connection Broker general setting to permit or deny users to specify the Connection Broker address
- New command line parameter `clearuser` forces the **Username** field to be empty when launching Leostream Connect, even if a username is specified
- Users can now specify their domain as part of their username, instead of selecting a domain from the **Domain** drop-down menu
- Leostream Connect now honors the TTL setting for the Connection Broker DNS SRV record when the **Obtain Connection Broker address automatically** option is selected
- The installer option **Enable client-side credential passthrough** now always requires a reboot
- Client-side credential passthrough is now supported on Windows Vista and Windows 7 clients
- New installation option `/CONNECTLOGIN` sets the default value for the **Connect to desktop after login** option on the Leostream Connect **Options** dialog. Individual users can then over ride this default

Leostream Agent for Microsoft® Windows® Operating Systems – Version 5.1.134

Features

- **USB drivers:** Leostream Agent 5.1 includes a new version of the USB drivers used for USB device redirection. These new drivers are compatible with the USB drivers in version 2.8 of Leostream Connect for Windows desktops and version 2.2 of Leostream Connect for Linux desktops, enabling USB device redirection from Linux clients to Windows remote desktops.




These new drivers are not backwards compatible. You must upgrade Leostream Connect on all clients, if you use Leostream USB redirection.

- **Installation:**
 - New `/AGENTPORT` and `/USESSL` installer command line parameters to specify the Leostream Agent port and to indicate if the Leostream Agent communicates with the Connection Broker using SSL

- New option to disable installing the Leostream GINA after enabling the end-user experience task
- During an upgrade, if the installer for the new version does not install the Leostream GINA and the previous installation included the GINA, the installer now uninstalls the Leostream GINA during the upgrade
- The Leostream Agent now honors the TTL setting for the Connection Broker DNS SRV record when the **Obtain Connection Broker address automatically** option is selected

Leostream Connect for Linux® Operating Systems – Version 2.2.57

Features

- **USB drivers:** Leostream Connect 2.2 includes a new version of the USB drivers used for USB device redirection. These new drivers are compatible with the USB drivers in version 1.4 of the Leostream Agent for Linux desktops and version 5.1 of the Leostream Agent for Windows desktops.
 These new drivers are not backwards compatible. You must upgrade the Leostream Agents on all remote desktops, if you use Leostream USB redirection.
- New `exit_ondisconnect lc.conf` parameter forces Leostream Connect to exit after the last resource connection is closed
- The **Password** field on the **Login** dialog now indicates if the Cap Lock key is on when the user begins typing their password
- The installer now displays the path to the Linux kernel.
- Installer no longer creates the `install.log` file. Instead, run the installer with the command line parameter `-DTRACE=true` to obtain an installation log.
- The `lc.conf` parameter `disable_options_tab` has been renamed to `hide_options_button`. The `disable_options_tab` parameter will be deprecated in a future release.
- If the `lc.conf` file does not include the `logout_ondisconnect` parameter, Leostream Connect behavior is set by the new **Log out user after last connection is closed** option on the Connection Broker > **System** > **Settings** page. The `lc.conf` parameter `logout_ondisconnect` will be deprecated in a future release.

Important Points

Leostream Connect cannot communicate with the Connection Broker using SSL if you are running version 1.6.12 of the Java Runtime Environment. If you try to use SSL with this version of the Runtime Environment, the following error occurs.

```
5452-27    01/10/12 14:53:56:603 ERR: Unable to validate broker(broker_address) with SSL
Cause:
java.net.SocketException: Unconnected sockets not implemented
```

To resolve this issue, upgrade your Java Runtime Environment to version 1.6.25.

Leostream Agent for Linux® Operating Systems – Version 1.4.59

- **USB drivers:** Leostream Agent 1.4 includes a new version of the USB drivers used for USB device redirection. These new drivers are compatible with the USB drivers in version 2.2 of Leostream Connect for Linux desktops and version 2.8 of Leostream Connect for Windows desktops, enabling USB device redirection from Windows clients to Linux remote desktops.



These new drivers are not backwards compatible. You must upgrade Leostream Connect on all clients, if you use Leostream USB redirection.

- **NoMachine NX Session Shadowing:** Provides new necessary functionality in support of Connection Broker feature for shadowing NoMachine NX sessions.
- The installer now displays the path to the Linux kernel.
- Installer no longer creates the `install.log` file. Instead, run the installer with the command line parameter `-DTRACE=true` to obtain an installation log.
- Leostream Agent start script and `leostreamagentd` scripts first look for Java in the Java path specified during installation. As a result, if Java is upgraded on the desktop, either the Leostream Agent must be reinstalled or the directory for the older version of Java must be deleted.

Connection Broker 7.0.104 – Release Notes

Connection Broker 7.0.104 is an update to Connection Broker version 7.0.97.

Component Updates

The following updates for Leostream Connect and the Leostream Agent are available in the Connection Broker > **Status** > **Downloads** page. These are updates to the minor versions previously available only on the Leostream Web site. See [Client and Leostream Agent Update](#) for a list of features in these versions.

- **Leostream Connect 2.7.135** – Supports Connection Broker option to log out user from the client when user closes their last resource connection.
- **Leostream Agent 5.0.142** – New installation command line parameters to specify the Leostream Agent port.
- **Leostream Connect 2.1.245** – New `lc.conf` parameter to specify that client should automatically exit after the user closes their last resource connection.

Feature

- New option on the > **System** > **Settings** page allows you to specify that the Windows version of Leostream Connect should automatically log out the user after they close (disconnect or log out) of their last resource connection.

Resolved Issues

The following list contains a sample of the issues resolved in this update. For information regarding these, or other, issues, please contact support@leostream.com.

- Fixed duplicate detection issues for desktops with stale IP addresses.
- Changes to the setting for the **Adjust time zone to match client** option in policies now correctly save when you save the policy.
- The **Authentication Server** permission in Connection Broker Roles now correctly supports selecting **Full** for the **Load Users** option.
- Resolved issues with adding and removing local users from the Windows Remote Desktop Users group.
- No longer receive database errors when deleting a group of users that are currently assigned to desktops.
- Resolved issues related to pools created using the **is equal to** conditional.

Database Changes

Version 7.0.104 adds the following tables to the Connection Broker databases, when compared to Connection Broker version 7.0.97.

- `general_config`

Connection Broker 7.0.97 – Release Notes

Connection Broker 7.0.97 is an update to Connection Broker version 7.0.96. See the [Connection Broker Administrator's Guide](#) for instructions on updating your Connection Broker. Follow the instructions in [Connection Broker Clusters](#) when updating a cluster of Connection Brokers.

Resolved Issue

This update resolves a critical issue when provisioning new desktops in VMware using a Guest OS customization specification file that does not have the `GuiRunOnce` command. If you receive an error similar to the following when provisioning new VMs from your Connection Broker, please update to version 7.0.97.0.

```
CloneVM returned "Can't call method "serialize" on unblessed reference at /usr/lib/perl5/site_perl/5.8.8/VMware/VISub.pm line 337.
```

Connection Broker 7.0.96 – Release Notes

Connection Broker 7.0.96 is an update to Connection Broker version 7.0.84. See the [Connection Broker Administrator's Guide](#) for instructions on updating your Connection Broker. Follow the instructions in [Connection Broker Clusters](#) when updating a cluster of Connection Brokers.

Component Updates

The following updates for Leostream Connect and the Leostream Agent are available in the Connection Broker > **Status** > **Downloads** page. These are updates to the minor versions previously available only on the Leostream Web site. See [Client and Leostream Agent Update](#) for a list of features in these versions.

- **Leostream Connect 2.7.129** – Windows version: Bug fixes related to XyLoc integration
- **Leostream Agent 5.0.139** – Windows version: Logging improvements and minor fixes
- **Leostream Connect 2.1.237** – Java version: Improvements to auto-discovering methods used to find the Connection Broker address.
- **Leostream Agent 1.3.201** – Java version: Start-up scripts now support `JAVA_BIN` path

Resolved Issues

The following list contains a sample of the issues resolved in this update. For information regarding these, or other, issues, please contact support@leostream.com

- When using Wake-on-LAN to power on physical desktops, the Connection Broker now sends Wake-on-LAN packets to multiple broadcast addresses in an attempt to reach every possible subnet, including all subnets on the Connection Broker address, the Connection Broker gateway address, and the desktop IP address.
- Guest OS customization specification files that contain special characters, such as the letter c with a cedilla below it, can now be used when provisioning new desktops in a Leostream pool.
- Webhooks entered in the **URL to call** fields are now consistently called for policy and hard-assigned desktops connected to from Wyse client devices.
- Properly register new client devices, to avoid creating duplicate client entries.
- When creating pools using a criteria of **is equal to** and using an internal Connection Broker database, the search string is no longer case sensitive. Therefore, pools created using the **is equal to** criteria now

have the same content if you are using a Microsoft® SQL Server® 2005 or 2008 database or an internal Connection Broker database.

- The `REMAPPED_IP` dynamic tag now correctly remaps IP addresses for desktops that have a DNS name in the **Hostname or IP address** field.
- The Connection Broker now queries the status of newly provisioned virtual machines to ensure that the network is connected before taking a snapshot of the VM.

Points of Interest

- The formatting for the **Wyse Configuration** section of the **Protocol Plans** has changed, as follows.
 - Ensure that each parameter name and value pair is on a single line
 - Begin the line with the hash or pound (#) symbol to insert a comment
 - Use the Leostream dynamic tags to set session specific variables

In addition, the Connection Broker now automatically adds any required quotation marks around the values for the `application`, `username`, and `password` WTOS variables.

- If a power down or reboot is requested for a VMware virtual machine that does not have a running version of VMware Tools, the Connection Broker now attempts to power control that VM using the Leostream Agent, if an agent is present. Before this release, a VMware VM that did not have a running version of VMware Tools could not be rebooted.
- Authentication server names are no longer case sensitive. If an authentication server in the Connection Broker is named `Leostream`, a user can enter `leostream`, `Leostream`, or `LEOSTREAM` to be authenticated against that domain. Before this release, the user was required to enter `Leostream` to match the case of the authentication server.
- The **Test Login** results now indicate if a user's role prevents them from power controlling desktops assigned from a pool of restartable desktops..

Database Changes

Version 7.0.96 adds fields to the following tables in the Connection Broker databases.

- `general_config`

In addition, to avoid SQL Server indexing errors when fields exceed 900 characters, any database field that allowed more than 900 characters are now limited to 900 characters.

Connection Broker 7.0.84 – Release Notes

Connection Broker 7.0.84 contains critical updates for the following components.

- **Leostream Connect 2.7.120** – Windows version: Updated OpenSSL components to version 1.0d
- **Leostream Agent 5.0.129** – Windows version: Updated OpenSSL components to version 1.0d

Connection Broker 7.0.83 – Release Notes

Connection Broker 7.0.83 is an update to Connection Broker version 7.0.53. See the [Connection Broker Administrator's Guide](#) for instructions on updating your Connection Broker. Follow the instructions in [Connection Broker Clusters](#) when updating a cluster of Connection Brokers.

Features

- **Component Updates:** The following updates for Leostream Connect and the Leostream Agent are available in the Connection Broker > **Status** > **Downloads** page. These are updates to the minor versions previously available only on the Leostream Web site. See [Client and Leostream Agent Update](#) for a list of features in these versions.
 - **Leostream Connect 2.7.117** – Windows version: New integration with Ensure Technologies XyLoc proximity products.
 - **Leostream Agent 5.0.127** – Windows version: Improved handling of Connection Broker registrations.
 - **Leostream Connect 2.1.222** – Java version: Improvements for HP RGS connections.
 - **Leostream Agent 1.3.200** – Java version: Improved handling of HP RGS sessions, including logging out rogue users.
- **Red Hat Enterprise Virtualization for Desktops (beta):**
 - New Red Hat Enterprise Virtualization Manager centers allow the Connection Broker to natively inventory, power control, and assign virtual machines hosted in RHEV-H
 - Protocol plans now allow SPICE connections to virtual machines hosted in RHEV-H
- **Citrix XenDesktop Support (beta):**
 - The Connection Broker can now deliver resources offered to a user by a Citrix XenApp Services Site.
 - New Citrix XenDesktop centers allow the Connection Broker to push desktop assignments to a Citrix Desktop Delivery Controller to provide HDX connections to resources offered by Leostream.
- **Microsoft RemoteFX Support:** Protocol plans are now configured, by default, to use RemoteFX technologies, when supported by the client and remote desktop.
- **Failover Desktops and Plans:**
 - The **Edit Desktop** page allows individual desktops to be assigned a failover desktop to launch in the event the user's primary desktop becomes unavailable at connect time.
 - Failover plans can be configured to notify the user when their primary desktop fails over to the desktop's specified failover desktop.
- **Backup Pools:**
 - The primary desktop's availability at offer time can now be determined based on a remote viewer port check or as a Leostream Agent port check.
 - The Connection Broker now offers desktops from the backup pool to all client types. Previously, only the Leostream Web client utilized the backup pools.
 - Desktops that are marked as **Unreachable** are now offered to users; **Unreachable** desktops

are automatically reset to **Available** upon user login.

- **Authentication:**
 - The Connection Broker now performs an anonymous bind to LDAP servers if the user name and password fields are blank in the **Create Authentication Server** and **Edit Authentication Server** forms.
 - The **Match login name against this field** option on the **Create Authentication Server** and **Edit Authentication Server** forms is now an edit field, allowing you to specify any valid user property for user login and authentication.
 - The **Connection Settings** section of the **Create Authentication Server** and **Edit Authentication Server** forms has changed to improve usability.
 - The Connection Broker can now authenticate using an NIS server.
- **Performance:** The **> System > Settings** page contains a new option to limit the number of simultaneous server requests
- **Leostream Connect Startup Message:** The optional startup message for Leostream Connect now has a user-configurable dialog title.
- **Uncategorized Desktops Center:** A new refresh interval is available for checking the power status of desktops registered in the Uncategorized Desktops center.
- **Web Hook Support:** Release plans contain new **URL to call** fields that allow you to execute a WebHook after the user logs out or disconnects from their desktop.
- **Leostream Web Client:** The Leostream Web client now provides an option to display offered resources in a list, in addition to a grid of large icons.
- **Multi-User Linux:** You can now use the Remote Desktop Services center type to manage Linux NoMachine NX servers used by multiple users.
- **Locations:** Client locations can now be created based on the number of attached displays.
- **Desktop power state:** The new **Confirm desktop power state** option instructs the Connection Broker to check the power state of the remote desktop before trying to connect the user to that desktop.
- **Dynamic Tags:** The `{CLIENT:UUID}` dynamic tag has been added.
- **Logs:**
 - Entries in the **> System > Log** page now display the client device associated with the log entry, where applicable.
 - Logs now contain details pertaining to the protocol selection for a resource connection.
 - Improved log messages now indicate what user session information is returned by Leostream Connect and the Leostream Agent.
- **Leostream Client COM API:** A Leostream Client COM API is now available. You can use this API to develop Microsoft® Windows PowerShell™ scripts that simulate user logins. For more information, please contact sales@leostream.com
- **Usability:**
 - Desktops published by a Citrix XenApp center are now presented to end users in the list of desktops, instead of with applications, in the Leostream Connect and Leostream Web clients.

- Editable drop-down menus replace standard drop-down menus for large lists, allowing you to search for items that begin with a specified string.

Resolved Issues

The following list contains a sample of the issues resolved in this update. For information regarding these, or other, issues, please contact support@leostream.com

- Web query commands no longer result in errors.
- The Connection Broker can now locate newly provisioned machines based on MAC address, which improves performance in environments with slower vCenter Server environments.
- Local users that are automatically added to Linux desktops by the Connection Broker are no longer case sensitive.
- The work queue `job_hda_scan` has been separated into three simultaneous work queue jobs to speed up Leostream Agent status and duplicate machine detection.
- The Connection Broker now correctly replaces the dynamic tag `{CLIENT:MAC}` with the MAC address of the user's client, for clients that return their MAC addresses.
- The Web Hook entered in the policy **URL to call at start of session** field now accepts `{CLIENT:XXX}` dynamic tags.
- Bulk uploading users on the **> System > Maintenance** page no longer blocks the upload after the license limit is met.
- The **When Connection is Closed** section of a release plan is now correctly handled for HP RGS connections.
- Portuguese characters are now correctly displayed in the **> Users > Assignments** page.
- The **Attribute** field in the Assignments table associated with an Authentication Server now supports matching against a user's `leostream_dn` property.

Points of Interest

- The `LEO_FULLSCREEN` dynamic tag for Wyse protocol plans has been deprecated. Hard-code any instances of the `LEO_FULLSCREEN` dynamic in protocol plans with the value `yes` or `no`, depending on if the remote session should span multiple monitors.
- The default **Configuration file** for Juniper SSL VPN connections in a Protocol Plan has changed to use the Juniper dynamic tags for username and password. Using Juniper dynamic tags allows you to hide the username and password in the URL that launches the remote desktop connection.

To change existing protocol plans, please replace the following dynamic tags:

Replace `{USER}` with `<USER>`

Replace `{PLAIN_PASSWORD}` with `<PASSWORD>`

- Many options on the **Edit Policy** page have changed from checkboxes to drop-down menus.
- The following pages have been renamed in the Connection Broker Administrator Guide
 - The **> System > General Configuration** is now **> System > Settings**
 - The **> System > Network Configuration** is now **> System > Network**
 - The **> System > Remote Backup** is now **> System > Backup**

Database Changes

Version 7.0.83 adds fields to the following tables in the Connection Broker databases.


- `client`
- `log`
- `plan_protocol`
- `plan_release`
- `policy`

Leostream Client and Leostream Agent Update

The following new versions of the Leostream Connect clients and Leostream Agent components are now available. These versions are currently available as downloads from the Leostream Web site. Minor updates to these versions will be included in future updates to the Connection Broker.

Leostream Connect for Microsoft® Windows® Operating Systems – Version 2.7.95

Features

- **USB drivers:** Leostream Connect 2.7 includes a new version of the USB drivers used for USB device redirection. These new drivers are compatible with the USB drivers in version 5.0 of the Leostream Agent for Windows desktops and version 1.3 of the Leostream Agent for Linux desktops, enabling USB device redirection from Windows clients to Linux remote desktops.
 These new drivers are not backwards compatible. You must upgrade the Leostream Agents on all remote desktops, if you are using Leostream USB redirection.
- **USB port:** The default port for USB redirection has changed from 32032 to 20020.
- **Install options:**
 - New option to indicate if the Microsoft Visual C++ run-time libraries should be installed. Uncheck this option only if the desktop already has an installed Microsoft VC++ runtime environment.
 - The **About** tab on the **Options** dialog now indicates which tasks were selected during installation.
- **Command line installation:**
 - New options to specify the Connection Broker address and port. See the [Leostream Installation Guide](#) for more information.
- **Command line execution:**
 - New `shell` command line parameter to start Leostream Connect in shell mode.
- **VNC:** Added support for TightVNC version 2.0

- **Smartcard support:**
 - Added 64-bit support to PKCS smartcard provider detection
 - Leostream Connect now refreshes the user's offered desktops when the user reinserts their smartcard.
- **Environment variables:** Support for environment variables in **Command line parameter** fields set in Connection Broker protocol plans.

Leostream Connect for Linux® – Version 2.1.154

Features

- **USB redirection:** Leostream Connect 2.1 provides complete support for USB redirection to Windows remote desktops with an installed Leostream Agent 5.0 and Linux remote desktops with an installed Leostream Agent 1.3.
- **Sidebar menu:** The sidebar menu, when enabled, can now be opened along any edge of the display. Previously, the sidebar menu only appears on the left edge of the display.
- **Resource dialog:** The resource selection dialog can now be resized, and the initial size can be set using the `resource_dlg_size` configuration file parameter.
- **Log viewer:** The graphical log viewer has been redesigned and is now always accessible. The `log_viewer_visibility` configuration file parameter has been deprecated.
- **Shell environment variable support:** The following environment variables can now be used for command line parameters in the user's protocol plan. Leostream Connect replaces these variables, as follows.

`$LOGNAME`, `$USER`, and `$UID` are mapped to the user's login name
`$HOME` is mapped to the user's Home directory
`$TZ` is mapped to the user's time zone

- **lc.conf file:**
 - The `trace_levels` parameter for the `lc.conf` file has been renamed to `TraceLevel`.
 - The `lc.conf` file is now modifiable by all users, by default.
- **Hotkey sequence:** When running Leostream Connect as an administrator, the hotkey sequence `CTRL+SHIFT+X` opens a confirmation prompt to exit Leostream Connect.
- **Sun Ray support:**
 - The installer now allows you to select the windows manager used on the Sun Ray server
 - Added `-DkillSession=$SUNRAY_SESSION_TOKEN` command line option to kill a particular Sun Ray session
 - Modified Sunray startup script to execute Leostream Connect with `killSession` option when `utaction` is called on disconnect
- **Installation:**
 - When installing as `root` and not installing on a Sun Ray server, the permission for `lc.conf`, `LeostreamConnect.jar` and `LeostreamInstaller.jar` now allow access for all users.

- When installing as root, the `leostreamconnect.release` file is now copied into the `/etc` directory.

Leostream Agent for Windows – Version 5.0.99

Features

- **USB drivers:** Leostream Agent 5.0 includes a new version of the USB drivers used for USB device redirection. These new drivers are compatible with the USB drivers included in version 2.7 of the Leostream Connect for Windows clients and version 2.1 of Leostream Connect for Linux clients, enabling USB device redirection from Linux clients to Windows remote desktops.



These new drivers are not backwards compatible. You must upgrade Leostream Connect on all client devices, if you are using Leostream USB redirection.

- **USB port:** The default port for USB redirection has changed from 32032 to 20020
- **Installation:**
 - New command line options to specify the Connection Broker address and port (see the [Leostream Installation Guide](#) for more information)
 - The Leostream Agent no longer automatically starts if the installation requires a restart to complete, but the desktop was not restarted.
- **Desktop attributes:** The Leostream Agent can now report to the Connection Broker the desktop's computer model, serial number, and maximum CPU speed
- **Options dialog:** The **About** tab in the Leostream Agent Control Panel dialog now indicates which tasks were run during installation

Resolve issues

- The Leostream Agent can now distinguish between 64-bit Windows XP and Windows 2003 operating systems.

Leostream Agent for Linux Operating Systems – Version 1.3.122

Features

- **USB drivers:** Leostream Agent 1.3 provides complete support for USB redirection from Windows clients with an installed Leostream Connect 2.7 and Linux clients with an installed Leostream Connect 2.1.
- **Local users:** The Leostream Agent can now automatically add local users to Linux desktops, including adding these users to the NoMachine NX database
- **Service configuration file:** The new `/etc/leostreamagentd.conf` service configuration file defines the location controls service parameters such as the location of the Java bin directory.
- **leostreamagent.conf parameters:** The parameter `TraceLevels` has changed to `TraceLevel`.

Connection Broker 7.0.53 – Release Notes

Connection Broker 7.0.53

Connection Broker 7.0.53 is a minor update to Connection Broker version 7.0.49. See the [Connection Broker Administrator's Guide](#) for instructions on updating your Connection Broker.

Features

- **Component Updates:** The following minor updates are available for Leostream Clients and Agents
 - **Leostream Connect 2.6.135** – Windows version: Support for new versions of TightVNC
 - **Leostream Agent 4.6.114** – Windows version: Update for hardware-based PCoIP support
 - **Leostream Connect 2.0.78** – Java version: Resolved issues with **Disconnect** sidebar menu
 - **Leostream Agent 1.2.18** – Java version: Improvements for Red Hat installation
- **Provisioning:** You can now remove rows from the **Destination Datastore** section in the **Edit/Create Pool** page, allowing you to specify an arbitrary number of datastores for distributing provisioned virtual machines.
- **Citrix XenApp:** Protocol Plans for the Citrix online plug-in now accept the `{SCRAMBLED_PASSWORD}` dynamic tag for the `Password` ICA-file parameter. Previously, only the `{PASSWORD}` dynamic tag was supported for the `ClearPassword` parameter. New protocol plans default to using the `{SCRAMBLED_PASSWORD}` dynamic tag. Manually edit any existing protocol plans to switch to scrambled passwords.
- **Leostream Management API (beta):** A beta version of the Leostream Management API is now available. This API allows you to create script to manage desktops, users, and assignments. For more information, please contact sales@leostream.com.

Resolved Issues

- **Citrix XenApp:** You can now successfully launch Citrix XenApp applications and desktops that have blank spaces in their display names. After upgrading to Connection Broker 7.0.52, refresh all your Citrix XenApp centers to correct any XenApp display names in the Connection Broker.
- **VMware View:** VMware View sessions are no longer offered to any clients except those writing to the Leostream client API, such as Leostream Connect.


Points of Interest

- **Connection Broker Clusters:** Occasionally, when a new Connection Broker is added to the cluster, the **> System > Cluster Management** page does not display information for all Connection Brokers. If you suspect that the **> System > Cluster Management** page is missing a Connection Broker that is in the cluster, reboot that Connection Broker. After the reboot completes, the **> System > Cluster Management** page should display the Connection Broker.

Connection Broker 7.0.49 – Release Notes

Connection Broker 7.0.49

Connection Broker 7.0.49 is a minor update to Connection Broker version 7.0.42. See the [Connection Broker Administrator's Guide](#) for instructions on updating your Connection Broker.

 Due to database changes, you must follow the instructions in [Connection Broker Clusters](#) when updating a cluster of Connection Brokers.

Features

- **Leostream Agent:** The Windows version has been updated to version 4.6.110
- **Desktops:** The **Edit Desktop** page now allows you to define a **Display name** for each desktop
- **Policies:**
 - The **Pool filters** and **Policy filters** section can now use the `{AD:CLIENT:attribute}` and `{AD:USER:attribute}` dynamic tags when defining filters based on text values
 - The **Display to user as** drop-down menu contains new options to use the new desktop **Display name**
- **Dynamic Tags:** The new `{AD:MACHINE:attribute}` dynamic tag can now be used in registry plans to set registry keys based on values stored in the remote desktop's Active Directory Computer object.
- **Usability:** The Connection Broker now disables the **Save** button after it has been clicked, to prohibit multiple form submissions

Database Changes

Version 7.0.49 adds a field to the `role` tables in the Connection Broker databases.

Connection Broker 7.0.42 – Release Notes

Connection Broker 7.0.42

Connection Broker 7.0.42 is available as an update to any Connection Broker version 6.x. See the [Connection Broker Administrator's Guide](#) for instructions on updating your Connection Broker.

Features

Connection Broker 7.0 contains minor updates for all Leostream Connect and Leostream Agent versions, as follows.

- **Leostream Connect 2.6.130** – Windows version
- **Leostream Agent 4.6.106** – Windows version
- **Leostream Connect 2.0.72** – Java version
- **Leostream Agent 1.2.16** – Java version

With the exception of the Windows version of the Leostream Agent, the client and agent updates are minor

defect resolution releases. For features available in the Windows version of the Leostream Agent, see the Leostream Agent section in the release notes.



Connection Broker 7.0 no longer provides support for managing VMs in VirtualCenter 1.x.

The following features were added to Connection Broker 7.0. See the referenced section in the [Connection Broker Administrator's Guide](#) for more information.

- **VMware View Support:** The Connection Broker now allows users to access their VMware View desktops when logging in through the Windows version of Leostream Connect, supporting software-based PC-over-IP connections and allowing mixed environments of VMware View and other technologies (see **Configuring VMware View Policy Options**)
- **Mobile Device Support:** The iTap RDP and iTap VNC clients for iPads and iPhones now provide a Leostream component, allowing users to log in to the Leostream Connection Broker and access their Windows and Linux desktops from Apple mobile devices (see **Apple iPad and iPhone Configuration**)
- **Provisioning Enhancements:** New features expand the existing capabilities for provisioning virtual machines in a VMware environment (see **Chapter 8: Provisioning New Desktops**), allowing you to perform the following action:
 - Specify if the virtual disk should be thick, thin, or same as template
 - Indicate the maximum number of desktops in a pool
 - Select the destination folder in the VMware inventory for new VMs
 - Specify multiple datastores to spread provisioned machines across, and indicate the algorithm used to determine which datastore to use for each VM.
 - Take a snapshot of the newly provisioned VM
- **Automatic VM Deletion:** Virtual Machines can now be marked as *deletable*, allowing the Connection Broker to delete VMs based on the user's release plan (see **Release Plan Example: Deleting Virtual Machines After Use**)
- **Backup Pools:** For policies that offer a single desktop, the Connection Broker can now check if the desktop is reachable and, if not, optionally offer a desktop from a backup pool (see **Specifying Backup Pools**)
- **NoMachine NX for Web Browsers:** The Leostream Web client now supports connecting to remote desktops using the NoMachine NX protocol
- **Authentication:**
 - When multiple authentication server addresses are provided for a particular domain, you can now specify the algorithm used for choosing the address to query when authenticating a given user login (see **Algorithm for selecting from multiple addresses**)
 - Improved usability when defining an authentication server based on an OpenLDAP server, including the ability to authenticate users based on the value of their UID property (see **Adding OpenLDAP Authentication Servers**)
- **Assigning Roles and Policies:** The **Assigning User Role and Policy** section of the **Edit Authentication Server** form has moved to the new **> Users > Assignments** page, providing easier access and more granular separation-of-tasks via Connection Broker roles (see **Chapter 14: Assigning User Roles and Policies**)
- **Roles:**
 - New Connection Broker Administrator Web interface permission to define the level of access to the new **Assignments** page

- The **Load Users** privilege for the **Authentication Servers** permission has been moved to a sub-menu (see **Customizing Access to the Authentication Servers Page**)
- **Centers:**
 - The test results for centers created from VMware vCenter Server now contains additional information about the permissions associated with the user account specified for this center, and the location of desktops that will be registered with the Connection Broker (see **Testing vCenter Server Centers**)
 - New option to indicate that desktops should no longer be offered from a particular center (see **Centers**)
- **Pools:**
 - You can now specify the algorithm for spreading out desktop assignment across the centers associated with a pool (see **Defining Pools Using Centers**)
 - You can now build pools based on the desktops model, process speed, or BIOS serial number (see **Defining Pools Using Desktop Attributes**)
- **Cluster Management:** New > **System > Cluster Configuration** page provides options for viewing and configuring time zone and network settings for all Connection Brokers in a cluster, as well as removing obsolete Connection Brokers from the cluster (see **Managing Connection Broker Clusters**)
- **Policies:** New policy options provide finer control over which desktops are offered to a user from each pool in their policy (see **When User Logs into Connection Broker**)
- **Protocol Plans:** Protocol plans can now be specified on a per-user basis, allowing protocol plan override for particular users (see **Which Protocol Plans Applies?**)
- **Reports:** New report on the > **Status > Reports** page shows user logins over time and provide enhancements to the Connection Broker audit level logging capabilities (see **Login History Reports**)
- **Search:** The > **System > Logs** page can now be searched using options on the global > **Search** page (see **Searching for Connection Broker Objects**)
- **Leostream Agent:** You can now set a default port for communications with the Leostream Agent (see **Configuring Communications with the Leostream Agent**)
- **Networking:** The **Network Configuration** page now contains an option to set the gateway on the `eth1` network adaptor (see **Setting Network Configuration and Connection Broker VIP**)

Point of Interest

The **Test Login** workflow has changed. The Connection Broker no longer performs a test at the moment you click a **Test Login** link associated with a user on the > **Users > Users** page. Instead, the Connection Broker now allows you to select the client and domain for the test. After selecting appropriate test values, click the **Run Test** button to perform the test.

Database Changes

Version 7.0.42 adds fields to the following tables in the Connection Broker databases.

- `broker`
- `log`
- `plan_protocol`
- `plan_release`

- `policy_assignment`
- `pool`
- `remote_authentication`
- `server`
- `user`
- `vc_datastore`
- `vm` (fields have also been removed from this table)

In addition, the table `policy_vmware_view_servers` has been added.

Leostream Agent 4.6.106 – Microsoft Windows Version

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

- The Leostream Agent can now return information about computer model, processor speed, and BIOS serial number, for display in the Connection Broker > **Resources** > **Desktops** page
- The Leostream Agent Installer now has an option to indicate if the Microsoft Visual C++ Runtime Libraries should be installed (see the [Leostream Installation Guide](#) for more information)

Updating Connection Broker Clusters

If you have multiple Connection Brokers clustered around a common Microsoft SQL Server 2005 or 2008 database, you must individually update all Connection Brokers in the cluster.



Before updating your production environment, test the new Connection Broker version in a proof-of-concept environment.

Use the following procedure to update a cluster of Connection Brokers. See the [Connection Broker Administrator's Guide](#) for detailed instructions on switching databases and updating Connection Brokers.

1. Determine a maintenance window when user activity will be low to update your Connection Brokers
2. Snapshot all Connection Brokers in the cluster
3. Backup the SQL Server database used for the cluster
4. **Switch all but one Connection Broker back to using an internal database**
5. If replication is turned on for the SQL Server database, turn replication off.



Do not proceed with the upgrade if replication is turned on for the Connection Broker database.

6. **Update the Connection Broker that is attached to the external database**

The update process modifies the database scheme to support the new Connection Broker version.

7. **Update the remaining Connection Brokers, while they are still attached to their internal databases**
8. Only after all Connection Brokers are updated, switch the Connection Brokers from their internal databases back to the SQL Server database.




When switching each Connection Broker back to the SQL Server database, ensure that you assign each Connection Broker to the **same Site ID** it had before you removed it from the cluster.

Any Connection Brokers that you do not switch back to an internal database before beginning the upgrade are placed into *maintenance mode* after the first Connection Broker is upgraded. In some cases, you cannot log in to the Administrator Web interface of a maintenance mode Connection Broker to perform an upgrade. If you encounter this problem, use the Connection Broker virtual appliance console to switch the maintenance mode Connection Brokers back to an internal database. Then, follow step 7 and 8 in the previous procedure to update the Connection Broker.

Upgrading your Connection Broker

Upgrading from Versions 6.x to Version 7.0.x

You can directly upgrade Connection Broker 6.x to version 7.0.x using the update methods available on the Connection Broker > **System** > **Maintenance** page. See “Updating the Connection Broker Virtual Appliance” in the [Connection Broker Virtual Appliance Administrator’s Guide](#) for complete instructions.


 If you have Roles that set the **Authentication Servers** permission to **Full** or **View only** access, these roles are incorrectly upgraded to provide **No** access. Please, edit these roles to reapply these permissions.

Upgrading from Version 5.3.x to Version 7.0

The following sections describe how to update individual and clustered 5.3 Connection Brokers.


Note: Connection Broker 7 requires a new license key. Please, contact sales@leostream.com to convert your existing key to the new format.

Connection Broker 7.0 updates the version 5.x Web interface design. For best results when upgrading from version 5.3, 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.

 If you have a Connection Broker older than version 5.3, you must first update to version 5.3. See [from Version 5.2.x to Version 5.3.x](#) for instructions.

Upgrade Instructions when Using an Internal Database

If your 5.3.x Connection Broker runs with an internal database, upgrade to the 7.0 Connection Broker, as follows.

 If you have a cluster of Connection Broker, follow the upgrade instructions in [Instructions when Using a Microsoft SQL Server Database](#).

1. Change the **Refresh Interval** of all your centers to **Manual**.
2. After setting all the refresh intervals to manual, go to the > **System** > **Job Queue** page and ensure that there are no running center scan jobs. Possible center scan jobs include `poll`, `poll_power_state`, `scan`, and `hda_status`. If any of these jobs are running, wait for these jobs to finish before proceeding with step 3.
3. Use the **Check for updates** option on the > **System** > **Maintenance** page to update the Connection Brokers to the latest 5.3.x patch.
4. Back up your existing 5.3.x Connection Broker database, as follows:
 - a. Go to the > **System** > **Maintenance** page.
 - b. Select the **Download** option.
 - c. Click **Next**.
 - d. Follow the instructions to save the 5.3 Connection Broker configuration.

5. Shut down your 5.3.x Connection Broker virtual appliance.
6. Back up your 5.3 Connection Broker virtual appliance.
7. Install a new 7.0 Connection Broker virtual appliance
8. When you sign into the new Connection Broker, the **Leostream license** page, shown in the following figure, appears. Enter your new 7.0 license key.



Connection Broker 7.0 will not accept previous versions of the Leostream license. If you are upgrading from Connection Broker 5.3, you must obtain a new license key from Leostream.

9. Select the **I have read and accept the License Agreement** option.
10. Click **Save**.
11. In the new Connection Broker, go to the **> System > Maintenance** page.
12. Select the **Restore** option.
13. Browse to the database you saved from your previous Connection Broker, and restore the database.

Your version 7.0 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 [.leostream.com/support](https://leostream.com/support).

Upgrade Instructions when Using a Microsoft SQL Server Database

If your 5.3.x Connection Broker runs with an external Microsoft SQL Server® 2005 database, upgrade to the 7.0 Connection Broker, as follows

1. Change the **Refresh Interval** of all your centers to **Manual**.
2. After setting all the refresh intervals to manual, go to the **> System > Job Queue** page and ensure that there are no running center scan jobs. Possible center scan jobs include `poll`, `poll_power_state`, `scan`, and `hda_status`. If any of these jobs are running, wait for these jobs to finish before proceeding with step 3.
3. Use the **Check for updates** option on the **> System > Maintenance** page to update all Connection Brokers to the latest 5.3.x patch.
4. Shut down all 5.3.x Connection Brokers that point to your SQL Server database.
5. Back up your existing 5.3.x Connection Broker database.
6. Install your new 7.0 Connection Broker virtual appliances.
7. When you sign into one of the new Connection Broker, the **Leostream license** page, shown in the following figure, appears. Enter your new 7.0 license key.

Note: Connection Broker 7.0 will not accept a Connection Broker 5.x license key.

8. Select the **I have read and accept the License Agreement** option.
9. Click **Save**.
10. Again, in the **> System > Maintenance** page, select **Switch to another database** option.
11. Click **Next**.
12. Select the **Use a remote Microsoft SQL Server 2005/2008 database** option.
13. 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 7.0 format.
14. Accept the warning to upgrade the database. The upgrade is not reversible.
15. Repeat step 10 through 13 to attach your remaining Connection Brokers to your database.

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

Your version 7.0 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 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 or earlier requires a reinstall of the Connection Broker virtual appliance. The following Web site contains the Connection Broker 5.3 virtual appliances.

leostream.com/cb/index53sp3.php

To upgrade a version 5.1.x or 5.2.x Connection Broker to version 5.3, first use options on the **> System > Maintenance** page to update your 5.1 or 5.2 Connection Brokers to the latest 5.2.10 version.

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. Change the **Refresh Interval** of all your centers to **Manual**.
2. After setting all the refresh intervals to manual, go to the **> System > Job Queue** page and ensure that there are no running center scan jobs. Possible center scan jobs include `poll`, `poll_power_state`, `scan`, and `hda_status`. If any of these jobs are running, wait for these jobs to finish before proceeding with step 3.
3. Use the **Check for updates** option on the **> System > Maintenance** page to update the Connection Brokers to the latest 5.2 patch.
4. After you have updated your Connection Brokers to the latest 5.2.x patch, go to the **> System > Maintenance** page.

5. Select the **Download** option.
6. Click **Next**.
7. Save the Connection Broker configuration.
8. Shut down and back up your 5.2.x Connection Broker.
9. Download the Connection Broker 5.3 virtual appliance.
10. Install the 5.3 Connection Broker.
11. In the new Connection Broker, go to the > **System > Maintenance** page.
12. Select the **Upload** option.
13. 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 [.leostream.com/support](https://leostream.com/support).

Upgrade Instructions when Using a Microsoft SQL Server 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. Change the **Refresh Interval** of all your centers to **Manual**.
2. After setting all the refresh intervals to manual, go to the > **System > Job Queue** page and ensure that there are no running center scan jobs. Possible center scan jobs include `poll`, `poll_power_state`, `scan`, and `hda_status`. If any of these jobs are running, wait for these jobs to finish before proceeding with step 3.
3. Back up your existing 5.2.x Connection Broker database.
4. Shut down all 5.2.x Connection Brokers that point to this database.
5. Download the Connection Broker 5.3 virtual appliance.
6. Install your Connection Broker 5.3 virtual appliances.
7. In one of the new Connection Brokers, go back to the > **System > Maintenance** page.
8. Select **Switch database**.
9. Select the **External database** option.
10. Enter the information for you 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.
11. Accept the warning to upgrade the database. The upgrade is not reversible.
12. Repeat step 7 through 10 for the remaining Connection Brokers in the cluster.

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 [.leostream.com/support](https://leostream.com/support).