

# Connection Broker Version 5.3.x

## Connection Broker Version 5.3 SP3 (5.3.50)

### Features

The following features were added to the 5.3 SP3 release.

- Citrix Presentation Server centers no longer require an installed Leostream Agent if the Presentation Server enables its XML RPC service. The Connection Broker now communicates with the Presentation Server over the Citrix XML RPC port. If you do not enable this service, or the XML RPC port is blocked, you must install the Leostream Agent. Using the XML RPC service provides a higher level of performance for Presentation Servers that contain a large number of applications.
- Include port check for the HP RGS remote viewer when the **Automatically select remote viewer protocol** option is selected in the **Leostream Connect Configuration** section on the **> System > General Configuration** page. See "Configuration Leostream Connect" in the [Connection Broker Administrator's Guide](#) for more information on using this option.
- New **<All>** option in the **Number of desktops to offer** drop-down menu in each **Pools** section in a policy. By selecting **<All>**, you can offer a user all the desktops in a particular pool, with the exception of desktops that are hard-assigned to another user.
- You can now define locations based on the client's operating system. To do so, select the new **Operating system** option in the **Client attribute** drop-down menu in the **Create Location** page. To create a location that contains all clients running a Microsoft Windows operating system, select **Windows (any version)** from the **Value** drop-down menu.
- You can now override the Leostream Connect remote viewer protocol selected in a policy based on the client's location. From the **Leostream Connect** drop-down menu in the **Protocol Override** section on the **Create Location** page, select the protocol to assign to clients in this location. The location-based remote viewer protocol is not checked during the **Test Login** operations on the **> Users > Users** page.
- New **Desktop Assignment Mode** column on the **> Clients > Clients** page, which indicates if a client has a hard-assigned or policy-assigned desktop. If you previously customized the columns displayed on this page, use the **customize** option at the bottom of the table to display this new column.

### Bug Fixes

The following is a sample of the bugs addressed in the 5.3 SP3 Connection Broker release. For a complete list of bugs addressed in the 5.3 SP3 release, please contact [sales@leostream.com](mailto:sales@leostream.com).

- Fix for `USB_ENABLED` return parameter in the thin client API `ThinWin.connection_list`.
- Wyse thin clients cannot display domain names that contain blank spaces. Therefore, in your Connection Broker, if you defined an authentication server with a name that contained spaces, users could not successfully log into these domains. As a work around in 5.3 SP3, for Wyse thin clients, the Connection Broker replaces blank spaces in an authentication server name with `\x20`. For example:

My Domain

appears as:

My\x20Domain

To avoid this reformatting, do not use blank spaces in Connection Broker authentication server names.

## New in Connection Broker Version 5.3 SP2 (5.3.36)

### Features

The following features were added to the 5.3 SP2 release. These features are described in the remainder of these release notes.

- New **Login name unique across domains** option on the > **System** > **General Configuration** page.
- New power control policy option to force a desktop to power off.
- New error messages displayed to users when they are locked out or disabled in a particular authentication server.
- Ability to reorder the rows in the **Assigning User Role and Policy** section of the authentication server, when the authentication server is created with the **Query for group information** option *not* selected.

### Bug Fixes

The following is a sample of the bugs addressed in the 5.3 SP2 Connection Broker release. For a complete list of bugs addressed in the 5.3 SP2 release, please contact sales@leostream.com.

- Fix for Thin client API `ThinWin.Session.Status`.
- Fix for the LDAP size limit error that could occur if an authentication server contained a large number of disabled users.
- Fix for the **Signed in** field on the > **Users** > **Users** page, when a user is logging in from a Wyse client. Now always indicates the last time the user signed in from a Wyse client, whether they successfully signed into a VM, or not.
- No longer create duplicate entries of Wyse clients on the > **Clients** > **Clients** page. Existing duplicates must be manually removed.
- Now show IP address for Leostream Connect clients on the > **Clients** > **Clients** page.

## New in Connection Broker Version 5.3 SP1 (5.3.27)

If you installed Connection Broker 5.3.21, you can select the **Check for updates** option on the > **System** > **Maintenance** page to upgrade to 5.3 SP1. You can also obtain a new 5.3 SP1 virtual appliance from the Leostream Downloads & Documentation Web site.

### Features

The following features were added to the 5.3 SP1 release. These features are described in the remainder of these release notes.

- Support for logging into the Leostream Connection Broker from a device running an HP SAM client.
- Ability to specify a name for the Connection Broker Microsoft SQL Server 2005 database.
- New tuning option to throttle incoming RPC traffic.
- Ability to reorder the rows in the **Assigning User Role and Policy** section of the authentication server, when the authentication server is created with the **Query for group information** option selected.
- Ability to specify wait periods in days, for policy-based power control or assignment actions.

- Ability to use Skins to customize text on the Connection Broker Web interface **Sign In** form.

## Bug Fixes

The following is a sample of the bugs addressed in the 5.3 SP1 Connection Broker release. For a complete list of bugs addressed in the 5.3 P1 release, please contact sales@leostream.com.

- No longer revoke offered applications after the user releases the application.
- Improved monitoring of VM power states.
- Modified the **Time Release** section on the **Edit Policy** form so that desktops can no longer be immediately released after the user logs in.
- Better handling of VMware VirtualCenter errors.
- Improved handling of SSL communications with the Leostream Agent.

## New in Connection Broker Version 5.3

The following features were added after the 5.2.x Connection Broker release.

- Citrix® XenApp™ support when used with Leostream Connect (Microsoft® Windows® and Linux® version) and Wyse thin clients.
- Remote upgrade feature for Leostream Connect client.
- New > **Status** > **Downloads** page with links for downloading the Leostream Agent, Leostream Connect, and Leostream Documentation.
- New ability to specify multiple authentication server addresses inside one record on the > **Users** > **Authentication Servers** page.
- New **Domain** option on the **Test Login** option on the > **Users** > **Users** page.
- Allow additional special characters on smart card logins.
- Enhanced USB support in policies when used with Leostream Connect version 2.2.
- Context sensitive help for Connection Broker forms.
- The **Templates** pool has been removed from the > **Resources** > **Pools** page. Please, use VMware® VirtualCenter to view the templates you use for provisioning.
- Bulk upload feature, to import users, desktops, and clients from a CSC-file.
- Additional columns available on the > **Users** > **Users** page to list Active Directory attributes for users.

The above features are described in the [Connection Broker Administrator's Guide](#) available on the Leostream Downloads and Documentation Web site.

## New in Leostream Connect for Windows Version 2.2.34

### Features

- Smart card authentication when using the following smart card technology:

- ACOS5 smart cards used in conjunction with bit4id Card Manager Admin software and readers.
- CAC smart cards used in conjunction with ActivIdentity® ActivClient™ security software.
- Smart cards compatible with the IAS (Identification, Authentication et Signature) middleware (Pilote Carte IAS), jointly developed by Dictao and Gemalto. This feature includes support for French CPS (health care professional's card) certificates.
- Support for launching Citrix® Presentation Server™ version 4.5 applications.
- Fingerprint authentication using DigitalPersona® Pro.
- Support for SafeNet iKey 1000 USB two-factor authentication tokens.
- Support multiple certificates on smart cards, when used with Microsoft Vista remote desktops. Users can now select which certificate to use for authentication.
- The **Allow user to modify password** Leostream Connect general configuration option has been replaced with **Allow unauthenticated logins (hides password field)** .
- Support for NoMachine NX Clients.
- New ability to reboot remote desktops from the Leostream Connect client, based on the end-user's policy.

## Bug Fixes

- Fixes for HP RGS running on a 64-bit Windows platform.
- Enhanced Connection Broker auto-discovery algorithm to use the **DNS Suffix Search List**, if one is available.

## Limitation

1. Leostream Connect 2.2.x does not support the **Allow users to reset offered desktops** option. If a user's policy enables this option, Leostream Connect will show a **Restart** option in the task bar menu, however the user will not be able to restart their machines.
2. Prior to version 2.2.28, the Leostream Connect installation did not automatically stop any running `LeostreamConnect.exe` process. Therefore, you could not run silent scripts to update Leostream Connect if the old client was running.

Leostream Connect versions 2.2.29, and above, now stop any running `LeostreamConnect.exe` process when installed over versions 2.2.28 and above. For example, a script that installs version 2.2.30 over version 2.2.28 will run silently, even if the 2.2.28 client process is running. However, that same script will not run silently if installing over version 2.2.27, if the client process is running.

3. Smart card readers must be attached to the client before launching Leostream Connect. If you connect the smart card reader after launching Leostream Connect, Leostream Connect cannot read the smart card.

## New in Leostream Connect for Linux Version 1.2.19.15

- Support for the HP RGS remote viewer protocol, using directory mode.
- Usability improvements for GUI.
- Report MAC address of Sun Ray DTU.

- Display domain as a drop-down menu, based on Connection Broker policy.
- Remove user credentials from login screen after remote viewer sessions are launched.
- New ability to reboot remote desktops from the Leostream Connect client, based on the end-user's policy.
- Support for NoMachine NX Clients.
- Support for launching Citrix® Presentation Server™ version 4.5 applications.
- New command line parameters to pass in user name, password, and domain to the client.

### ***Using Leostream Connect for Linux with Sun Ray uttsc Protocol***

Leostream Connect version 1.2.19.15 always performs single sign-on when logging in from a Sun Ray DTU.

Previous client releases explicitly required the `-i` option, as follows.

- Leostream Connect/Java versions between 1.2.7.1 and 1.2.19.14 required policies that use the RDP – Sun Ray uttsc option to include the command line parameter `-i`, which induces the client to read the password from standard input. Without this parameter, single sign-on does not work.
- Leostream Connect/Java versions older than 1.2.7 must not include the `-i` parameter in the policy's command line parameters. These clients automatically set the `-i` parameter, and duplicating that parameter in the policy results in an error.

**Note:** If Leostream Connect returns a “Cannot open audio device” error, add the following parameter to the SUN Ray uttsc **Command line** field in the **Leostream Connect Configuration** section of the Connection Broker policy:

```
-r:sound off
```

## Limitation When Using Leostream Connect with Citrix XenApp

When using Leostream Connect to launch applications published in a Citrix XenApp farm, you can launch only a single instance of each application. After you launch the application, Leostream Connect no longer lists that application in your list of offered resources.

If you close the application before you exit Leostream Connect, you cannot re-launch the application. To refresh the resource list and gain access to all of your applications, exit and log back in to Leostream Connect.

## New in Leostream Agent Version 4.1.66

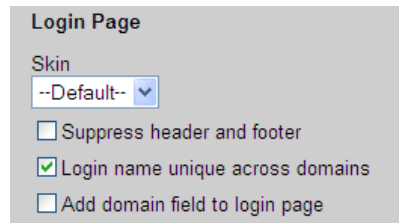
- Enhanced USB passthrough support, when used with Leostream Connect 2.2.
- The Leostream Agent now registers itself with the Windows firewall.
- Updated SSL listener now allows the Connection Broker to communicate with the Leostream Agent using SSL.

## SP2 Feature Descriptions

The following sections describe features that are new in Connection Broker 5.3 SP2. For a full description of Connection Broker 5.3, please see the [Leostream Connection Broker Administrator's Guide](#), available on the Leostream Web site.

### Login Name Unique Across Domains

The **Login Page** section of the **> System > General Configuration** page contains the new **Login name unique across domains** option, shown in the following figure.



When this option is selected:

- The Connection Broker assumes that a particular user name belongs to a unique physical end user.
- The **> Users > Users** page maintains a single record for a particular user name. For example, if a user with user name `jsmith` logs into the Development domain on Monday, the Connection Broker creates a record for this user. If, on Tuesday, a user with the user name `jsmith` logs into the QA domain, the Connection Broker replaces the original record with this new information.
- When logging into the Connection Broker, entering or selecting **Any** for the domain indicates that the Connection Broker should search for the user in all authentication servers. For first time users, the Connection Broker logs the user into the first authentication server that successfully authenticates the user. For returning users, the Connection Broker first checks the last authentication server the user logged into.

When this option is *not* selected:

- The Connection Broker assumes that a user name that exists in multiple domains belongs to different physical end users in each domain.
- The **> Users > Users** page maintains multiple records for a particular user name. For example, The Connection Broker creates two records for two users with the same user name `jsmith`, logging into two different domains.
- When logging into the Connection Broker, entering **<None>** for the domain indicates that the Connection Broker should first search for a user that was created locally in the Connection Broker. If a local user is not found, the Connection Broker then searches through the remaining authentication servers. The Connection Broker breaks this rule if a fully qualified username, such as UPN, is entered into the user name field. In this case, the Connection Broker does not look for a local user; it looks for the user in the appropriate domain.

### Power Off Options

The Connection Broker now makes a distinction between shutting down and powering off a desktop.

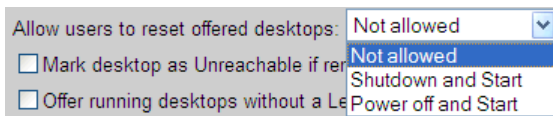
- **Shutdown:** The existing shutdown action gracefully shuts down the desktop, similar to selecting **Shutdown** from the **Start** menu on a Windows desktop. If you are turning off machines to conserve power, use the shutdown option.

- **Power Off:** The new power off option forcefully turns off the desktop. This is similar to holding down the power button to force a shut down. If you need to reboot a frozen or unresponsive desktop, use the power off option.

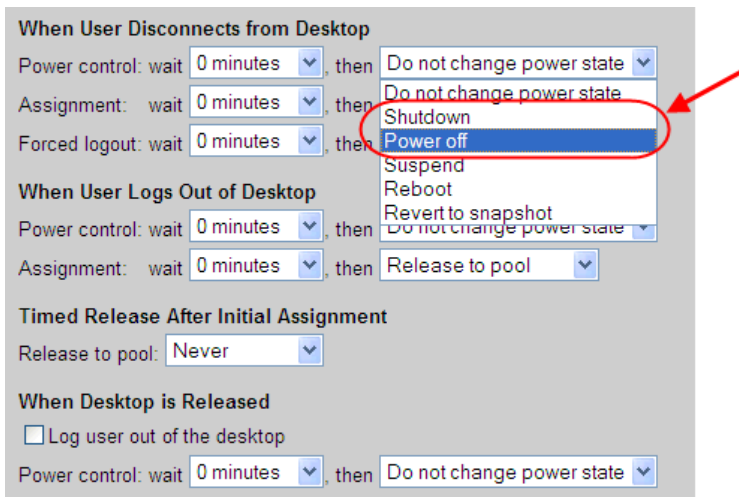
### Power Controls in Policies

Before Connection Broker 5.3 SP2, the **Allow user to reset offered desktops** option in the **When User Logs into Connection Broker** section was a checkbox. With this option selected, if a user tried to restart their machine, Leostream Connect always attempted to gracefully shutdown the desktop, which would not work for unresponsive machines.

In Connection Broker 5.3 SP2, this check box has changed to a drop-down menu, as shown in the following figure. You can now specify if the machine should gracefully or forcefully shut down. The end user experience has not changed. From Leostream Connect for Linux, end users have a single option to restart their machine.



In addition, the three **Power control** drop-down menus in policies now contain both **Shutdown** and **Power off** options, as shown in the following figure.

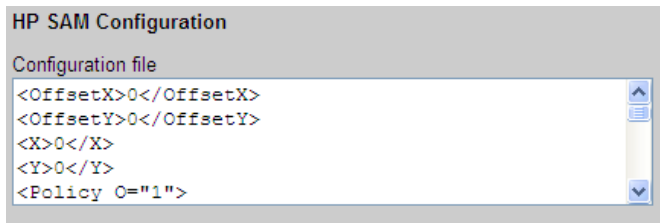


## SP1 Feature Descriptions

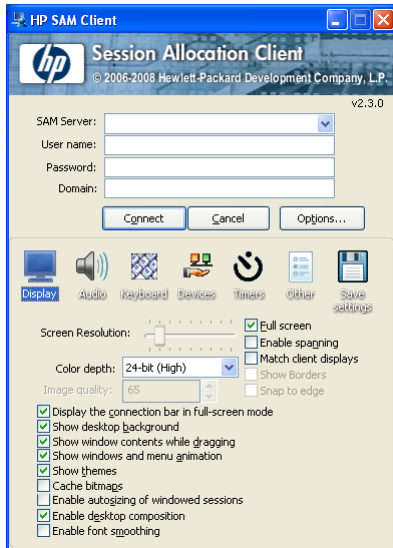
The following sections describe features that are new in Connection Broker 5.3 SP1. For a full description of Connection Broker 5.3, please see the [Leostream Connection Broker Administrator's Guide](#), available on the Leostream Web site.

### HP Sam Client Support

The Leostream Connection Broker now supports logging in from client devices running an HP SAM (**Session Allocation Manager**) client. To configure the remote viewer session that is launched from the HP SAM client, go to the **> Users > Policies** page and scroll down to the **HP SAM Configuration** section, shown in the following figure.



Enter the **Configuration file** in XML-format. The parameters in this file map to individual controls on the SAM client's **Options**, shown in the following figure.



**Note:** The Connection Broker over-rides all settings in the SAM client user interface. You must configure the desired settings in the user's policy.

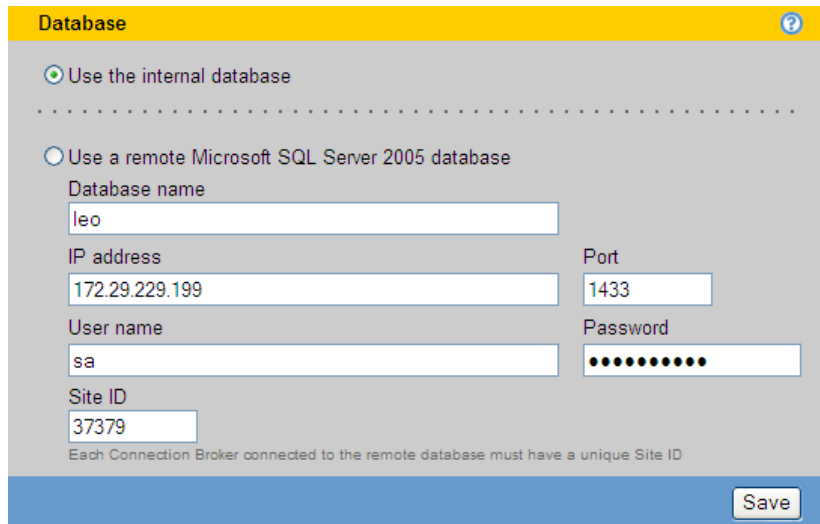
## Specifying Database Name

Previous Connection Broker releases always assigned the name "leo" to an external Microsoft SQL Server 2005 database. Because all Connection Brokers used the same database name, you could not place multiple databases on the same Microsoft SQL Server.

Starting with Connection Broker 5.3 SP1, you can enter a customized name for each Connection Broker database, allowing you to place multiple Connection Broker databases in a single SQL Server.

To use an external database with a specific name:

1. Go to the **> System > Maintenance** page.
2. Select the **Switch to another database** option.
3. Click **Next**. The following dialog opens.



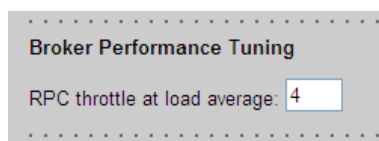
4. Select the **Use a remote Microsoft SQL Server 2005 database** option.
5. Enter a name in the **Database name** edit field.
6. Enter the database's IP address in the **IP Address** edit field.
7. Change the default outbound port listed in the **Port** edit field, if necessary.
8. Enter a **User name** and **Password** for a user with access to the database.
9. Enter a unique **Site ID**. Each Connection Broker in a cluster must have a unique Site ID.
10. Click **Save**.

The Connection Broker takes one of the following actions:

1. If a database with the specified name *does not* exist: The Connection Broker creates a new database with that name and automatically populates the database with the information currently available in the Connection Broker.
2. If database with the specified name *does* exist: The Connection Broker switches to using the new external database. If you are switching from an internal to external database, the information in the internal database is lost.

## Setting RPC Threshold

If you have an application that uses RPC calls to communicate with the Connection Broker, you can change the default threshold on the **> System > General Configuration** page. Scroll down to the bottom of the form, to the **Broker Performance Tuning** section, shown in the following figure.



In most cases, the default threshold on the load averaged number of RPC calls allows the Connection Broker to process RPC calls without sacrificing performance. You can increase this number if your RPC calls are receiving too many "Server Busy" warnings. Be aware that, if you set this number too high, your Connection Broker may become clogged with RPC calls, and cease to function properly.

## Reordering Authentication Server Rules

You can now easily reorder the rows in the **Assigning User Role and Policy** section of your authentication server. To view this table, go to the **> Users > Authentication Servers** page and edit one of your authentication servers. Scroll down to the **Assigning User Role and Policy** section, shown in the following figure.

**Assigning User Role and Policy**  
In this section you can set up rules to assign Users to Roles and Policies based on their group membership. Optionally use the Order column to re-order the rows.

Order	Group	Client Location	User Role	User Policy
1	Administrators	All	Administrator	None - show all desktops
2	Backup Operators	Wyse terminals	Power User	no usb
3	Development	with referer	Powerless Users	Dev XP
4	Cert Publishers	Teradici	User	Blade with PCoIP
5		All	User	Default
6		All	User	Default
7		All	User	Default

[Add rows]

To move a row, type a new row number into the **Order** edit box at the beginning of the row. You can enter new row numbers for as many rows as you want to move. To store the changes, click **Save**.

**Note:** The new row numbers are not stored until you save the authentication server changes. Make sure you do not navigate away from the **Edit Authentication Server** page without clicking **Save**.

## Specifying a Timed Release on a User's Policy

To specify that a desktop be released back to its pool after a certain elapsed time since the user logged in, go to the **> Users > Policies** page, and edit the appropriate policy.

Scroll down to the **Time Release After Initial Assignment**

## Using Skins to Customize Sign In Form Text

The **Skins** form contains additional fields, shown in the following figure, that allow you to customize the text on the Sign In form.

**Text prompts**

Sign In form - Title  
 My Company's Login Form

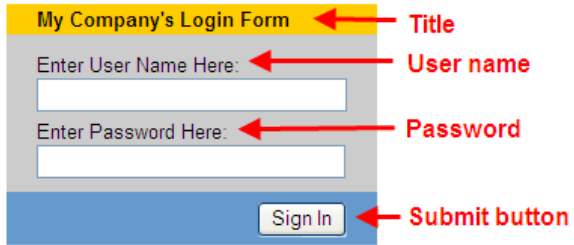
Sign In form - User name  
 Enter User Name Here:

Sign In form - Password  
 Enter Password Here:

Sign In form - Domain  
 Select a Domain

Sign In form - Submit button  
 Sign In

For example, the text entered in the previous figure configures the Sign In form as shown in the following figure.



My Company's Login Form ← Title

Enter User Name Here: ← User name

Enter Password Here: ← Password

Sign In ← Submit button

## Specifying Command Line Parameters for Leostream Connect/Java

You can now launch Leostream Connect for Linux with command line arguments that specify the user name, password, and domain to log in with. The following new command line parameters are supported.

- `form.username` - Prepopulates the **Login** dialog with the user name
- `form.password` - Prepopulates the **Login** dialog with the password
- `form.domain` - Prepopulates the **Login** dialog with the domain

## Upgrading to Version 5.3

The upgrade to Connection Broker 5.3 from version 5.2 requires a reinstall of the Connection Broker. To upgrade a version 5.2.x Connection Broker to version 5.3, you must, first, upgrade your 5.2 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 5.2 Connection Broker.

### Using Connection Broker 5.3 with 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, contact [support@leostream.com](mailto:support@leostream.com).

### Using Connection Broker 5.3 with 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 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.

9. Accept the warning to upgrade the database. The upgrade is not reversible.

**Note:** Once the database is upgrade, 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, contact [support@leostream.com](mailto:support@leostream.com).