



leostream

Remote Desktop Access Platform

Leostream Release Notes

Connecting People. Connecting Business.

**Version 2023
July 2023**

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Leostream Platform 202x Release Notes

Important Notes

Leostream Platform 202x is a continuation of the Leostream Platform release for Red Hat Enterprise Linux 8 and derivative Linux distributions such as Rocky Linux. If you are still running Leostream Platform 9.x on CentOS 7, please be aware that version 9.x is end-of-life as of December 31, 2023. For a list 9.x functionality that is no longer included in Leostream Platform 202x, please see **Obsoleted 9.x Features and Functionality**.

Leostream Gateway 202x uses an updated installation process. Please consult the **Leostream Installation Guide** for instructions on how to install or upgrade to Leostream Gateway 2022.1.0.6.

Version 2023 of the Leostream Agent and Leostream Connect clients are rearchitected to remove the Java dependency for Linux and macOS. Currently, clients and agents using this new design are available for Windows operating systems.

Obsoleted 9.x Features and Functionality

The following items are no longer included in Leostream Platform 202x. Please continue using version 9.1 of the Connection Broker and contact sales@leostream.com if you are using any of these features.

- NIS authentication is no longer supported. The source code for the open-source C library that Leostream leverages to integrate with NIS authentication servers is no longer included in the Red Hat repositories for RHEL 8.

Remain on Connection Broker 9.1 if you are using NIS authentication.

- Windows Deployment Services operating system provisioning for HPE Moonshot nodes is no longer supported.
- Forwarding user logins between Connection Broker clusters is no longer allowed.
- Support for the Cisco VPN client has been removed.
- Central Authentication Service (CAS) authentication is no longer available for the Leostream Web client.
- Exceed OnDemand connections to remote desktops are no longer supported.

July 2023

Important Note

The Leostream Software Subscription Agreement was updated in June of 2023. Please visit <https://leostream.com/leostream-software-subscription-agreement/> for more information and contact info@leostream.com with questions or concerns.

Connection Broker 2023.1.4

- Resolves an issue where a Connection Broker connected to an external Microsoft SQL Server database could fail to startup due to large memory consumption
- Resolves an issue where tags were not being applied to AWS EC2 instances during provisioning

Leostream Connect 2023.1.4 for Windows Operating Systems

- Adds support for smart card authentication using the latest version of the ActivIdentity ActivClient middleware
- Resolves an issue with the credential provider that is installed by the **Enable client-side credential passthrough** task
- Resolves an issue where the client would not launch properly if the > **System** > **Settings** page on the Connection Broker was set to require smart card authentication

Leostream Agent 2023.1.3 for Windows Operating Systems

- Resolves an issue with the credential provider that is installed by the **Install Credential Provider** task

June 2023

Important Note

Connection Broker 2023.1.3 and all updated Leostream Agent and Leostream Connect components include the updated Leostream Software Subscription Agreement. Please visit <https://leostream.com/leostream-software-subscription-agreement/> for more information and contact info@leostream.com with questions or concerns.

Connection Broker 2023.1.3

Component Updates

- Leostream Agent 2023.1.2 for Windows operating systems – Resolve intermittent start-up errors and issues with saving changes to the log retention and backup settings
- Leostream Agent 5.3.14 for Linux and macOS operating systems – Return CPU and RAM information when installed on macOS; properly create certificates on DISA-STIG compliant Linux machines (please contact support@leostream.com for more information)
- Leostream Connect 2023.1.2 for Windows operating systems – Resolve issues with saving changes to the log retention and backup settings
- Leostream Connect 3.9.6 for Linux and macOS operating systems

Resolved Issues

- Amazon WorkSpaces centers now support the option to authenticate with the AWS APIs using an IAM Role attached to the Connection Broker instance in AWS EC2
- Amazon WorkSpaces and AWS EC2 centers now support IAM Role authentication for AWS EC2 Connection Broker instances that require IMDSv2 for the instance metadata
- Leostream Connect dialogs rendered in HTML by the Connection Broker, for example the dialog for configuring protocol plan parameters, no longer generate a script error
- The Pools page and Dashboard chart depicting desktop power states now counts Azure deallocated and OpenStack shelved desktops as Stopped machines
- Modified policy-assignment logic to ensure that desktops contained in multiple pools are consistently offered from the same pool over subsequent user logins
- Idle-time settings for hard-assigned desktops are now properly applied
- Calls to the `pools` RESTful API no longer require a defined center for vCenter Server

- Wait until Azure returns that a provisioning job is complete before attempting to perform a domain join on the provisioned VM
- Updated the procedure for generating Technical Support packages to gather local Connection Broker files before extracting database files in order to provide debugging information in cases where the database is unreachable
- Ensure that both PCoIP clients get disconnected after the user manually disconnects from one of a bonded pair of PCoIP clients
- The Connection Broker now installs on supported Linux distributions using a Japanese server without a GUI
- The protocol plan option to allow users to customize the resolution for HP ZCentral Remote Boost connections now contains additional ultra-wide settings and descriptions

April 2023

Connection Broker 2023.1.1

Features

- Upgrades: After upgrading to Connection Broker 2023.1.1, subsequent upgrades can be completed using the upgrade options on the > **System** > **Maintenance** page
- Amazon Web Services support:
 - New Amazon WorkSpaces Core integration supports creating WorkSpaces centers in order to launch, assign, and connect users to WorkSpaces Core instances
 - WorkSpaces Core and AWS EC2 centers can now authenticate with the AWS API using an IAM role attached to the Connection Broker EC2 instance
 - Pools can now provision T4g instance types
 - Any `VM::EC2 StartInstances` error messages are now logged in the > **System** > **Log** page
- Protocol plans can be configured to specify or allow users to enter alternative usernames and passwords to use when launching HTML5 RDP connections via the Leostream Gateway
- RESTful API enhancements
 - The RESTful API is now implemented using the OpenAPI Specification (OAS)
 - Documentation for the RESTful API methods can be found in the Connection Broker at <https://broker-address/download/rest-api.html>
 - The new `gateway` RESTful API supports adding, removing, and updating Leostream Gateway record in the Connection Broker
 - The `pools` API now supports configuring provisioning parameters for VMware centers
- Syslog enhancements
 - The **Log Settings** page now supports entering multiple syslog servers
 - Syslog servers specified on the **Log Settings** page can now include a port number, to support non-standard syslog ports
 - Syslog messages can now be sent using either TCP or UDP

- Enabling syslog for one Connection Broker in a cluster now automatically configures all Connection Brokers in the cluster
 - Pools can now be defined based on the properties of the GPU associated with the desktop
 - Desktops:
 - Manually releasing a desktop from the > **Resources** > **Desktops** page now provides an option to either invoke or ignore all Power Control and Release Plan actions associated with that desktop assignment
 - The **Bulk Edit** form for desktops includes a new option to indicate if new notes should be prepended or appended to the existing notes for each desktop record
 - Users are now assigned to stopped desktops as soon as they click an option to start the machine, instead of waiting for the machine to finishing powering on and attempting to establish a connection
- NOTE: A check of the display protocol port must pass in order for the desktop to be considered as successfully powered on, otherwise the Connection Broker unassigns the desktop with a “Failed to start” message and no Release or Power Control plans are invoked
- Protocol plans now support the Scale Logic Remote Access Portal (RAP) – VDI solution
 - The right side of the **Edit Location** page now displays additional information about the clients contained in that location
 - Command line interface:
 - A new `--force` option for the `switch_database` CLI allows the Connection Broker to switch to its internal database when its current external database is unreachable
 - The `switch_database` CLI now prompts for a password when one is not specified in the command line arguments

Resolved Issues

- Resolve issue generating DCV authentication tokens when a username is repeated in multiple registered authentication servers
- When logging into a tenant and launching a PCoIP connection using the HP Anyware software client, the **Domain** field now contains only information for the tenant’s domain
- The `is_alive` query now consistently returns a 503 status when the Connection Broker database is unavailable

- No longer require an interactive terminal session if the `--apply-license` option for the `leostream-broker` CLI includes the `--accept` flag
- Resolve issue related to parsing smart cards using the latest version of OpenSSL
- Resolve issue provisioning T3 instances (only effected customers with a beta version of Connection Broker 2023)
- Resolve issue related to Dashboard rendering when opening multiple Connection Broker sessions across different browser tabs
- When storing configurable parameters globally for all connections, display protocols that are used across multiple pools in the policy are now listed once as the union of all configurable parameters, instead of repeating display protocols in the **Configurable Parameters** dialog
- No longer create duplicate Enrolled Desktops when a Leostream Agent registers on a machine that has already been inventoried from an Active Directory center
- No longer log an error when attempting to delete an AWS instance inventoried in the Connection Broker, if that instance is already terminated in the AWS management console
- Improve logging messages when provisioning virtual machines in VMware that reuse a NIC that was used by a different virtual machine that was previously inventoried in the Connection Broker
- No longer create an empty user record when receiving a RESTful API login call to a Connection Broker with an expired license
- No longer purge the default local Administrator account when purging the Connection Broker database
- Resolve issue changing the query order of authentication servers on the **> Setup > Authentication Server** page.

Leostream Gateway 2023.1.0.11

- The Leostream Gateway now runs on Security-Enhanced Linux (SELinux)
- Upgraded to Apache Guacamole 1.5.0
- Remove all reboot requirements when installing the Leostream Gateway, detaching it from a Connection Broker, and leveraging the `leostream-gateway` CLI commands
- Do not serve the `/version` URL when Connection Broker forwarding is enabled
- Remove the `/api` URL

Leostream Agent for Windows – Version 2023.1.0

- Support monitoring connections to the Scale Logic Remote Access Portal (RAP) – VDI solution
- Resolve issue deleting user profiles when the user's Connection Broker Role is set to delete the user and profile on logout
- Improvements for DCV session handling
- Improve detection of installed Windows operating system version

Leostream Connect for Windows – Version 2023.1.1

- Support connections using the Scale Logic Remote Access Portal (RAP) – VDI solution
- Update dialogs for managing invitations using native Windows components
- Resolve issues opening and displaying dialogs in languages other than English

Leostream Agent for Linux and macOS – Version 5.3.6

- Support third-party signed certificates
- Support monitoring connections to the Scale Logic Remote Access Portal (RAP) – VDI solution
- Return desktop GPU information to the Connection Broker

Leostream Connect for Linux and macOS – Version 3.9.2

- Support connections using the Scale Logic Remote Access Portal (RAP) – VDI solution

January 2023

Leostream Agent 5.3.4 for macOS and Linux

- Support the policy option to log out rogue users for rogue users connected to a DCV session
- Suppress duplicate log messages when the Leostream Agent is unable to find the RGS session file
- Resolves issues monitoring logout events on Linux operating systems with XRDP and Xvnc installed

December 2022

Component Updates

- Leostream Agent 7.4.23 for Windows operating systems – Returns the public and local hostnames for AWS instances to the metadata returned to the Connection Broker
- Leostream Agent 5.2.23 for Linux and macOS operating systems – Returns the public and local hostnames for AWS instances to the metadata returned to the Connection Broker
- Leostream Connect 3.8.5 for Linux and macOS operating systems – Opens the Remote Boost authentication dialog when the Leostream protocol plan does not specify a username for the connection

Connection Broker 2022.1.3

Features

- The TGX encryption tool has been updated to version 2022.1.4
- Minor enhancements when defining multiple SAML-based authentication servers using tenants
- Store the public and local hostname for AWS instances when returned by the Leostream Agent
- New dynamic tags `{HOSTNAME_PRIVATE}` and `{HOSTNAME_PUBLIC}` for use in Leostream Protocol Plans
- Support Standard NVadsA10v5-series instance size in **Pools** when provisioning into an Azure Center

- Prepend the PCoIP device IP address to syslog messages received by the Connection Broker prior to relaying them to an external syslog server specified in the PCoIP Devices Center

Resolved Issues

- Properly handle cases where users enter incorrect passwords into a PCoIP Software client that is launched from the Leostream Web client
- For Leostream environments that have reached their license limit, users with an existing Leostream license are no longer blocked from logging in when their policy enables the **Prompt user for alternate credentials before connecting to selected desktop** option and they launch the PCoIP client from the Leostream Web client
- Properly release desktops that are forcefully shutdown before the Leostream Agent is able to register the shutdown with the Connection Broker, for example when using the **Power off** power control option
- Allow Printer Plans to be deleted when they are currently assigned to a Location or specific Client
- Removed support for the `if_assigned_only` parameter for the `cb_status` Web query
- Improve handling of center scans that run while there are active provisioning jobs, to avoid removing desktop records associated with virtual machines that are still being created
- Resolve cases where provisioning jobs for virtual machines on Scale Computing HC3 resulted in duplicate desktop records
- Paginate inventory of images from OpenStack centers to handle cases where the OpenStack project has more than 25 images
- Properly log out rogue users that are connected to desktops using HP ZCentral Remote Boost (RGS) based on the Policy option to log out rogue users
- Change desktop power statuses to Stopped for desktops marked as Stopping when a Center scan occurs and confirms that the desktop is powered off
- Improve disconnect logic for PCoIP Remote Workstation Cards to attempt to disconnect the PCoIP session from the Remote Workstation Card if the PCoIP client cannot be disconnected
- Pass the region to the AWS API when checking if an AWS center is online
- Properly fail over to the second value for dynamic tags that use the `or` syntax and reference hostnames or IP addresses, for example `IP_PUBLIC-or-IP`

- Resolved permission errors when trying to send Leostream log messages to a syslog server

October 2022

Connection Broker 2022.1.0.9

- Updates the internal PostgreSQL database to version 14.5
- Updates the internal jQuery UI components to version 1.13.2
- Restricts the upload of third-party content through the > **System** > **Maintenance** page to new logs and favicons

Leostream Gateway 2022.1.0.6

Include Apache tomcat in the Leostream Gateway packages, to improve the installation experience.



If you are upgrading an existing version 2022 Leostream Gateway to version 2022.1.0.6 you must uninstall the current version of Apache tomcat as part of the upgrade. Please see the [**Leostream Installation Guide**](#) for complete instructions.

Leostream Agent for Windows – Version 7.4.22

Resend idle-time notifications every thirty seconds if the agent is unable to contact the Connection Broker.

Leostream Agent for Linux and macOS – Version 5.2.22

- Improve management of Remote Boost sessions on Rocky Linux 8
- Resolve issue related to the use of NetworkInterface API that could cause the registration with the Connection Broker to fail

August 2022

Leostream Platform 2022 is an updated version of the Leostream Platform, and is comprised of the components described in the following sections. You cannot perform a direct update from version 9.x of the Leostream Platform to version 2022. Please consult the upgrade documents for instructions on how to move your Leostream 9.x configuration to a new Leostream 2022 Connection Broker.

Connection Broker 2022.1.0.8 and Components

The following updates and features are new in Connection Broker 2022. If you are running an older version of the Connection Broker, consult the Leostream 9 release notes for information on additional features and fixes that may be available, depending on your current Connection Broker version.

- The Connection Broker is now packaged for installation on any virtual or physical machine running the latest Red Hat® Enterprise Linux® 8.x operating system and its derivatives, such as Rocky Linux and AlmaLinux OS
- The Connection Broker now installs in `/var/lib/leo` instead of `/home/leo`
- The Connection Broker `leo` user is no longer added to the `sudoers` file and instead is allocated the specific permissions required to support Connection Broker functionality
- The internal Connection Broker PostgreSQL database has been upgraded to version 14.4
- The Connection Broker Sign In page has been redesigned
- Dashboard updates
 - You can now add and remove widgets on the dashboard
 - The dashboard has a new **Reset** button to return the dashboard to the factory default layout
 - The new Desktops Assigned widget displays the number of desktops currently assigned to a user
 - The new Pools widget displays a bar graph of the contents of all pools, so you can easily compare the number of desktops in pools
 - Widgets now display a message if no appropriate data has been collected for that widget
 - A new warning banner displays dashboard-related message, such as when a widget references a pool that has been deleted

- NICE DCV – The Leostream feature to invite users to collaborate on another user’s session is now available for users connecting using NICE DCV
- The `leostream-broker` CLI has new options to accept the Leostream EULA and automatically reboot the Connection Broker if the license enables a feature that requires a reboot
- When adding a Leostream Gateway, the default power-forwarding methodology uses a random port filtered by the client source IP address
- The **> System > Maintenance** options to shutdown and reboot the Connection Broker are now displayed only with the Connection Broker is in debug mode

Leostream Gateway 2022.1.0.5

The Leostream Gateway can now be installed on any virtual or physical machine running the latest Red Hat Enterprise Linux 8.x operating system and its derivatives, such as Rocky Linux and AlmaLinux OS

Leostream Agent for Windows – Version 7.4.21

- Compatible with Connection Broker 9.1 and 2022
- Adds support for reporting Windows Server 2019 and 2022 and supports DCV collaboration

Leostream Agent for Linux and macOS – Version 5.2.20

- Compatible with Connection Broker 9.1 and 2022
- Adds support for monitoring RGS sessions on Rocky Linux 8 and supports DCV collaboration

Leostream Connect for Windows – Version 4.4.4.6

- Compatible with Connection Broker 9.1 and 2022
- Resolves issues caused by deleting the NoMachine configuration file too soon when establishing the connection

Leostream Connect for Linux and macOS – Version 3.8.4

- Compatible with Connection Broker 9.1 and 2022
- This component is not being updated during this release

Appendix A: Version Compatibility

Leostream Agent Compatibility Matrix

The following table indicates the Leostream Agent versions that are compatible with Connection Broker versions 9 and 202x. Connection Brokers cannot communicate with incompatible Leostream Agents. Not all Connection Broker functionality may be supported by older Leostream Agents, so some loss of functionality may occur even though a particular Connection Broker version is able to communicate with the older agent versions. Contact Leostream Support for more information.

Connection Broker	Version	9.0.34.10	9.0.34.21 and later	9.1	202x
Leostream Agent for Windows	6.x	Y	N	N	N
	7.x	Y	Y	Y	Y
	2023	N	N	Y	Y
Leostream Agent for Linux and macOS	3.x	N	N	N	N
	4.x	Y	N	N	N
	5.x	Y	Y	Y	Y

- Leostream Agent versions older than 6.0 for Windows and 3.0 for Linux are not compatible with any supported Connection Broker.

Leostream Connect Compatibility Matrix

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

Connection Broker	Version	9.x	202x
Leostream Connect for Windows	4.x	Y	Y
	2023	N	Y
Leostream Connect for Linux and macOS	3.5	Y	Y
	3.6	Y	Y
	3.7	Y	Y
	3.8	Y	Y

- Not all features supported by the latest Leostream Connect version are available when using an older Connection Broker version.