



Sentinel RMS SDK v9.5.0

RELEASE NOTES FOR LINUX (32-BIT AND 64-BIT)

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Product Description

Sentinel RMS is a software licensing SDK for your applications. It increases revenue by authorizing the use of your applications and offers a variety of licensing schemes to boost your product sales. It also provides tools that system administrators can use to track and manage licenses in a network.

When SCL add-on is combined with the license enforcement features of Sentinel RMS and the entitlement management features of Sentinel EMS, it makes a complete solution that provides the benefits of cloud-connected licensing to applications deployed in the customer's network or hosted online. Usage collection and reporting is the most significant advantage obtained with cloud-connected licensing.

About This Document

This document contains details about the new features, problems corrected, and installation of the v9.5.0 of the Sentinel RMS SDK. The last major release was Sentinel RMS v9.4.0

New Features and Enhancements

This section lists the new features and enhancements included in Sentinel RMS SDK v9.5.0 release.

Support for License Aggregation in case of Different License Vendor Info

Under this enhancement, support for license aggregation even if licenses have different license vendor info has been introduced.

To achieve this, the following changes have been made:

- > A new attribute (**license_vendor_info**) has been made available (specify at the time of license generation).
- > Licenses will aggregate even if the values specified for these attributes are different.
- > This functionality is available from license version 19 onwards.
- > For more information on license aggregation, refer to the *Sentinel RMS SDK Developer's guide*.

Support for License Aggregation for Cloud-Served Lease deployments

- > We have provided support for aggregate cloud-served lease licenses. This functionality is available from license version 19 onwards.
- > Prior to this release, only exclusive cloud-served lease licenses were supported.

Cleaning the Active Login Session on a License Manager

We have provided support for cleaning an active session on the License Manager for which the corresponding client does not exist anymore.

Under this enhancement, the following attributes have been added to the `sntl_licensing_login_attr` API.

Attribute Key	Purpose
<code>SNTL_ATTR_LOGIN_ZOMBIE_SESSION</code>	This attribute is set to create a zombie session at login call.
<code>SNTL_ATTR_LOGIN_ZOMBIE_SESSION_IDENTIFIER_MASK</code>	This attribute is used to configure the client identifier mask for identifying the client whose session needs to be removed from the License Manager.

For further details, refer to the [Sentinel RMS API Reference Guide](#).

Support for Higher Value of Hard Limit and Soft Limit

- > Sentinel RMS has been enhanced to support hard limit and soft limit up to 4,294,967,294 (short form: ~4B).
- > This functionality is available from Sentinel RMS v9.5.0 onwards with license version 20 (or above).
- > Existing API (traditional and unified) have been enhanced to support license hard limit up to 4,294,967,294. For more information, refer to the [Sentinel RMS API Reference guide](#).
- > New API functions have also been introduced under this enhancement. For more information, refer to the [Sentinel RMS API Reference guide](#).
- > Further, existing tools have also been enhanced to support this. For more information, refer to the [Sentinel RMS System Administrator's guide](#).

NOTE It must be noted that this high value is applicable only when hard limit is used as a quantity (not concurrency).

New Unified API Query Version

To support this enhancement, a new query version (1.1) has been introduced for the following API functions.

- > `sntl_licensing_get_info`
- > `sntl_licensing_get_session_info`

New Traditional API Functions

To support this enhancement, the following traditional API functions have been introduced :

- > VLSupdateExt2
- > VLSdiscoverExt2
- > VLSgetAndInstallCommuterCodeExt
- > VLSgetLicInUseFromHandleExt

Creation of Usage Logs for Commuter Licenses (Sentinel Cloud)

Under this enhancement, cloud usage logs are created for commuter licenses generated using the cloud-served lease deployment mode.

Support for Usage Count Multiplier (UCM) attribute for sntl_licensing_refresh_attr API Function

Support for the UCM attribute has been extended to the sntl_licensing_refresh_attr API. Previously, the UCM attribute was available only with sntl_licensing_login_attr and sntl_licensing_logout_attr API functions.

Problems Corrected in This Release

The following problems have been corrected in this release.

JIRA ID	Problem Description
SM-41966	When the server pool is configured using host name and IP address, and the client machine is unable to resolve the host name returned by the server; the subsequent get_info API fails and returns error 210003
SM-35524	License Manager crashes while fetching license info in some scenarios
SM-44068	Support for CID key on Ubuntu
SM-31348	Incorrect information related to lsmon.exe tool for commuted token at the License Manager
SM-39573	How to disable creation of Cloud usage log files (.udb) in response to GetFileList request API
SM-40706	VLSgetCommuterInfo modifies the value of structSz member
SM-42798	RMS Unified API: Value of isNodeLocked documented for licenseInfo and featureInfo is incorrect.
SM-44844	VLSgetCommuterInfoExt API returns different status code for remotely checked out commuter license
SM-44857	Issue in parsing with & character as XML format does not support it
SM-48420	Need to document the printable ASCII characters that are allowed for Secret Text values used in license generation
SM-48688	Correct handling of SNTL_ATTR_REFRESH_UNITS_REQUIRED attribute is required for the Java interface
SM-49614	Need to insert FAQs regarding debugging an application using license decode DLL
SM-49645	Fix the Isclean issue to clean time tampering persistence in specific scenarios

JIRA ID	Problem Description
SM-50422	Fix the issue with the cleaning tool failing to clean (standalone license) time tampering information in some scenarios
SM-37357	Improve trial Licenses documentation regarding seamless switchover
SM-18279	Control remote session functionality not applicable for network licenses
SM-41490	Document supported character set for challenge data attribute
SM-43659	Enhance VLSgetLicSharingServerList API documentation for server_list parameter
SM-42838	Documentation update regarding type of characters that can be used for vendor usage data attribute. This is applicable to login_attr, logout_attr, and refresh_attr API functions.
SM-40752	Remove the dependency of Sentinel RMS build v9.2.1.1502 on Visual Studio 2005 SP1 redistributable.
SM-47320	Fix the problem with custom Isdecode.exe that is unable to decode the custom encrypted license.
SM-38681	The script does not work as expected when VLSrevokeByPermissionTicket method is used in Sentinel RMS v9.2.1. Works fine in Sentinel RMS v8.6.2.
SM-39679	Compilation issue with Isapiw32 and Isptgen during PT and RT generation with build 9.2.1.1901
SM-43589	Declaration of VLSsetHostIdFunc API to be corrected in the API reference guide.
SM-49761	Fix for Error 133 VLS_RESOURCE_LOCK_FAILURE with LSGetMessage inside ErrorHandler
SM-51164	Document the supported RMS version for cancel and resume functionality and supported version for persistence initialization.
SM-51393	Update the licenseInfo query for sntl_licensing_get_info API with missing parameters in the table

JIRA ID	Problem Description
SM-47657	Documentation update for VLScgDecodeLicenseRevocationTicketExt() API.
SM-29184	License request or update fails when the application is killed dynamically.
SM-46745	Update the description of the keyTimeLeftInSecs field for sntl_licensing_get_session_info API.
SM-53010	Documentation enhancement related to excluding entities from group reservation file.
SM-39460	Document default trace log behavior.
SM-40534	Issue with continuously increasing license count on the License Manager for redundant type licenses.

System Requirements

To use the Sentinel RMS, the minimum hardware and software requirements are:

Hardware Requirements	Software Requirements
<p>Processors:</p> <ul style="list-style-type: none">> x86 processors for 32-bit> x86-64 processors for 64-bit	<p>Operating Systems:</p> <ul style="list-style-type: none">> Red Hat Enterprise Linux (RHEL) 6.x> Red Hat Enterprise Linux (RHEL) 7.x> SUSE Linux Enterprise Server (SLES)12> SUSE Linux Enterprise Server (SLES) 15> Debian Linux 8.x> Debian Linux 9.x> Ubuntu Linux 16.04> Ubuntu Linux 18.04> OpenSUSE Leap 42.x> OpenSUSE Leap 15.x
<p>Hard Disk (Minimum)</p> <p>500 MB of free hard disk space is required.</p>	<p>GCC and Glibc:</p> <ul style="list-style-type: none">> GCC (32-bit): 3.2.2> GCC (64-bit): 3.3.6> Glibc (32-bit and 64-bit): 2.3.2 <div data-bbox="857 1125 1414 1346" style="border: 1px solid #ccc; padding: 5px;"><p>NOTE For Licgen, the GCC and Glibc versions (applicable for both 32-bit and 64-bit OSes) are 4.4.7 and 2.14 respectively.</p></div>

Hardware Requirements		Software Requirements
RAM (Minimum)		<p>Java Development Kit (JDK) Java SE 7, Java SE 8</p> <p>Web Browser (for viewing HTML Helps):</p> <ul style="list-style-type: none"> > Mozilla Firefox > Google Chrome <p>PDF File Viewer (for viewing PDF documents): Adobe Acrobat</p>
Operating System	Minimum Capacity	
Red Hat Enterprise Linux (RHEL) 6.x	2 GB	
Red Hat Enterprise Linux (RHEL) 7.x	2 GB	
SUSE Linux Enterprise Server (SLES) 12	1 GB	
SUSE Linux Enterprise Server (SLES) 15	1 GB	
Debian Linux 8.x	512 MB	
Debian Linux 9.x	512 MB	
Ubuntu Linux 16.04	2 GB	
Ubuntu Linux 18.04	2 GB	
OpenSUSE Leap 42.x	2 GB	
OpenSUSE Leap 15.x	2 GB	

Installation Information

This section contains important information related to the installation of Sentinel RMS SDK.

Before installing the Sentinel RMS SDK, ensure that you have the following:

- > Administrator Privileges: You must have administrator privileges to successfully install all the components.
- > Sentinel RMS SDK Serial Number: You require a valid serial number provided by Gemalto. The installer prompts you to enter the serial number provided to you.

Installation Instructions

1. The Software is packed in a .tar archive. Extract files from the archive as follows:

```
tar -xvf RMSSDK9.5.0.0221Linux.tar
```

2. Change the directory where the installation script *install.sh* exists (*slm_0950_linux_combo_cdrom* directory). Afterward, type *sh install.sh* to start the installation.
3. Accept the license agreement to proceed with the installation.
4. Enter the path of the installation directory.
5. You will be required to specify the RMS SDK serial number. This serial number is contained in the Gemalto Sentinel Order Credential e-mail and is unique for each vendor.

NOTE Sentinel RMS is self-contained in the installation directory. To uninstall, remove the directory. Do stop the Sentinel RMS License Manager before uninstalling.

Installing Sentinel UNIX Driver (SUD)

Sentinel UNIX Driver (SUD) needs to be installed for making use of the hardware keys (for CID-based locking and license generation). To install SUD on your system:

NOTE The RMS License Manager included with this release supports version 7.5.6 of the Sentinel UNIX Driver.

1. Extract the SUD installer from its compressed tar image placed at *<installdir>/redistributable/licenseManager/SUDInstaller.tar.gz* location by giving the following command:

```
tar -xvzf SUDInstaller.tar.gz
```

2. Change directory to SUDInstaller.
3. To install SUD USB driver on RPM-based operating systems:
 - Change directory to *usb*.

- Run command `rpm -i --force sntl-sud-7.5.6-0.i386.rpm` to install the driver.
4. To install SUD USB driver on Debian-based operating systems :
- Change directory to `usb`.
 - Run command `dpkg -i --force-architecture sntl-sud_7.5.6-0_i386.deb` to install the driver.

Installed Directories

The following directories/files are installed:

Directory or File	Description
development	Contains all the RMS libraries, header files, and source code for licensing and customization purpose.
manuals	Documentation for the Sentinel RMS SDK.
samples	Examples that illustrate the various features of Sentinel RMS. The include files, which provide the prototypes for various Sentinel RMS library functions.
vendorTools	Contains the utilities and files for your use. NOTE The license generator is no longer included with the SDK. A download link is provided to you using e-mail. If not, contact Technical Support for obtaining it.
redistributable	The utilities and files for your customers, including the Sentinel RMS License Manager.
ReleaseNotes.pdf	This file.

Major Documentation Resources

The following are the major documentation resources for the product.

Sentinel RMS SDK Solution Guide

This guide provides the complete overview of Gemalto's Software Monetization solution. You can use this guide to prepare a comprehensive monetization strategy prior to integrating licensing technology with your software and business processes.

- > To view the online version of the latest document, [click here](#).

Sentinel RMS SDK Developer's Guide

This guide contains the complete product overview, the necessary information for licensing and distributing the applications. Useful for developers planning and implementing licensing. To access, use the following ways:

- > The PDF version is installed on the system can be accessed using the Doc Access Page (.htm) in the Manuals directory.
- > To view the online version of the latest document, [click here](#).

Sentinel RMS SDK API Reference Guide

This guide contains details about all the API functions, including the licensing library, system initialization, and so on. Useful for developers integrating the API functions in the code. To access, use the following ways:

- > PDF version is installed on the system can be accessed using the Doc Access Page (.htm) in the Manuals directory.
- > To view the online version of the latest document, [click here](#).

License Generation API Reference Guide

This guide contains details about the License Generation API functions. To access, use the following ways:

- > The PDF version is available with the license generator module.
- > To view the online version of the latest document, [click here](#).

Sentinel RMS SDK System Administrator's Guide

This guide contains details about using the system administration and License Manager configuration options. Useful for the System Administrator of the end user (on the customer site). To access, use the following ways:

- > The HTML version installed on the system can be accessed using the Doc Access Page (.htm) in the Manuals directory.
- > To view the online version of the latest document, [click here](#).

SCP (Sentinel Cloud Plugin) Installation and Configuration Guide

This guide describes the installation and configuration procedure for SCP used for cloud-served lease deployments. This is applicable for Windows, Linux, and Macintosh operating systems. Additionally, it describes the components included in the SCP package for serving cloud-connected deployments.

- > To view the online version of the latest document, [click here](#).

Support Contacts

You can contact us using any of the following options:

Business Contacts

To find the nearest office or distributor, use the following URL:

<https://sentinel.gemalto.com/contact-us-sm/>

Technical Support

To obtain assistance in using Gemalto Sentinel Products, feel free to contact our Technical Support team:

- > Customer Support Portal: (Preferred)
 - <https://supportportal.gemalto.com/csm?id=sentinel>
- > Phone:
 - AMER: 800-545-6608 (US toll free), +1-410-931-7520 (International)
 - EMEA / APAC: <https://supportportal.gemalto.com/csm?id=sentinel>
Click "Contact us"
- > E-mail (only if having issue submitting the technical issue via portal)
technical.support@gemalto.com

Downloads

You may want to explore updated installers and other components here:

<https://sentinelcustomer.gemalto.com/sentineldownloads/>