



Sentinel RMS SDK v9.5.0

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

Release Version: v9.5.0

Document Number: 007-013329-001, G

Release Date: April, 2019

Contents

Product Description	3
About This Document	3
New Features and Enhancements	3
Support for License Aggregation in case of Different License Vendor Info	3
Support for License Aggregation for Cloud-Served Lease deployments	3
Cleaning the Active Login Session on a License Manager	4
Support for Higher Value of Hard Limit and Soft Limit	4
Creation of Usage Logs for Commuter Licenses (Sentinel Cloud)	5
New Location of Cloud Usage Logs	5
Support for Usage Count Multiplier (UCM) attribute for sntl_licensing_refresh_attr API Function	5
Sentinel RMS API Builder	5
Problems Corrected in This Release	7
System Requirements	10
Installation Information	13
Installation Instructions	13
Installed Directories	15

Major Documentation Resources	16
Sentinel RMS SDK Solution Guide	16
Sentinel RMS SDK Developer's Guide	16
Sentinel RMS SDK API Reference Guide	16
License Generation API Reference Guide	16
Sentinel RMS SDK System Administrator's Guide	17
SCP (Sentinel Cloud Plugin) Installation and Configuration Guide	17
Support Contacts	18
Business Contacts	18
Technical Support	18
Downloads	18

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.

New Location of Cloud Usage Logs

When a standalone cloud application is running, the usage logs are created at the following location. This behavior is applicable only for standalone cloud applications using the Windows platform.

C:\ProgramData\SafeNet Sentinel\Sentinel RMS Development Kit\System\Usage

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.

Sentinel RMS API Builder

From Sentinel RMS v9.5 onwards, we have introduced a new tool known as the API Builder.

The API Builder invokes API functions and generates the output without writing or compiling the code. Additionally, the API Builder produces the code snippet on the fly. The source code is generated in C language and the operating platform in Microsoft Windows.

Some key features of the API Builder are as follows:

- > **Source code generation:** Depending on the input parameters, the code snippet is dynamically generated.

- > **API execution:** The API Builder helps to call and test API functions without having to write and compile any code. The result of the operation is displayed on the screen along with the error code (if any). For more information, invoke the context sensitive help within API Builder by clicking the Help (?) icon.

List of Unified APIs for the API Builder

The following APIs are available. In future, more APIs are planned to be added.

- > `sntl_licensing_app_context_new`
- > `sntl_licensing_app_context_delete`
- > `sntl_licensing_login`
- > `sntl_licensing_login_attr`
- > `sntl_licensing_refresh`
- > `sntl_licensing_refresh_attr`
- > `sntl_licensing_logout`
- > `sntl_licensing_logout_attr`
- > `sntl_licensing_get_info`
- > `sntl_licensing_get_session_info`

Problems Corrected in This Release

The following problems have been corrected in this release.

JIRA ID	Problem Description
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 lsclean issue to clean time tampering persistence in specific scenarios
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

JIRA ID	Problem Description
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 accepted characters for vendor usage data attribute. Update 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
SM-47657	Documentation update for VLScgDecodeLicenseRevocationTicketExt() API.
SM-29184	License request or update fails when the application is killed dynamically.

JIRA ID	Problem Description
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

The following are the minimum hardware and software requirements for installing the Sentinel RMS SDK:

Hardware Requirements	Software Requirements	
Processors <ul style="list-style-type: none">> x86 processors for 32-bit> x86-64 processors for 64-bit	Operating System (32-bit)	Operating System (64-bit)
	<ul style="list-style-type: none">> Windows 7> Windows 8.1> Windows 10 v1809> Windows Server 2008	<ul style="list-style-type: none">> Windows 7> Windows 8.1> Windows 10 v1809> Windows Server 2008> Windows Server 2008 R2> Windows Server 2012> Windows Server 2012 R2> Windows Server 2016> Windows Server 2019

Hardware Requirements	Software Requirements
<p>Hard Disk (Minimum)</p> <p>Approximately 1.8 GB free hard disk space is required to install Sentinel RMS.</p> <p>Ensure that the “initial size (in MB)” allowed for “pagefile” for each drive remains available after you have installed RMS SDK. Otherwise, the shortage of space may affect your system’s performance.</p>	<p>Microsoft Visual Studio Version</p> <ul style="list-style-type: none"> > Visual Studio 2008 Professional edition v9.0.30729.1 SP (32-bit and 64-bit) > Visual Studio 2010 Professional edition v10.0.30319.1 RTM (32-bit and 64-bit) > Visual Studio 2012 Professional edition v11.0.60610.01 update 3 (32-bit and 64-bit) > Visual Studio 2013 Professional edition > Visual Studio 2015 Professional edition v14.0.25431.01 update 3 > Visual Studio 2017 Professional edition <div style="border: 1px solid #ccc; padding: 10px; margin-top: 10px;"> <p>NOTE RMS libraries compiled with Microsoft Visual Studio 2015 are fully compatible with Visual Studio 2017. In addition, RMS libraries compiled with Microsoft Visual Studio 2012 are fully compatible with Visual Studio 2013. In this release, the RMS SDK does not include a separate library for Visual Studio 2013 and 2017.</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 Help)</p> <ul style="list-style-type: none"> > Microsoft Internet Explorer > Mozilla Firefox > Google Chrome <p>PDF File Viewer (for viewing PDF documents) Adobe Acrobat</p>
Operating System (32-bit)	Operating System (64-bit)	
Windows 7 (1 GB)	Windows 7 (2 GB)	
Windows 8.1 (1 GB)	Windows 8.1 (2 GB)	
Windows 10 v 1809 (1 GB)	Windows 10 v1809 (2 GB)	
Windows Server 2008 (2 GB)	Windows Server 2008 (2 GB)	
	Windows Server 2008 R2 (2 GB)	
	Windows Server 2012 (2 GB)	
	Windows Server 2012 R2 (2 GB)	
	Windows Server 2016 (2 GB)	
	Windows Server 2019 (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. Double-click *StartHere.exe* from the root of the installation media. The Start Here screen appears.
2. Click **Install under Sentinel RMS Development Kit 9.5.0 Software**. The Welcome screen appears.

NOTE If you are installing the RMS SDK using the steps described here, you need not click the **Install** option under Sentinel RMS License Manager Installer. This option is for only installing the Sentinel RMS License Manager, which is automatically installed as a part of the SDK on your system.

3. Click **Next**. A screen showing the license agreement appears.
4. To proceed, accept the license agreement and click **Next**.
5. In the Customer Information dialog box, type your name, organization name, and the RMS SDK serial number. This serial number is contained in the Gemalto Sentinel Order Credential e-mail and is unique to each vendor.
6. You may modify the SDK installation directory. The default installation directory is:
 - On 32-bit machines - <OSdrive>:\Program Files\SafeNet Sentinel\Sentinel RMS Development Kit\<version>\
 - On 64-bit machines - <OSdrive>:\Program Files (x86)\SafeNet Sentinel\Sentinel RMS Development Kit\<version>\

7. Select the **Complete** or **Custom** installation option.

NOTE The Custom installation option for the RMS SDK cannot be used on non-English operating systems.

8. You are prompted for modifying the system firewall settings. Choose between the following options:
 - Select the check box to allow communication with the License Manager. This setting adds the License Manager to your system firewall's exceptions list.
 - Clear the check box to block communication with the License Manager (not recommended).

9. Follow the on-screen instructions to finish the installation.

Installed Directories

The following directories/files are installed:

Directory	Description
<i>Development</i>	Contains all the RMS libraries, header files, XSDs and source code for licensing and customization.
<i>Manuals</i>	Contains the various documentation items for Sentinel RMS.
<i>Redistributable</i>	Contains the utilities and files for your customers, including the Sentinel RMS License Manager installer.
<i>Samples</i>	Contains the sample programs for demonstrating the use of various RMS features and API.
<i>VendorTools</i>	Contains the utilities and files for your use. NOTE The license generator is no longer included with the SDK. The order e-mail contains a link that enables you to download the license generator.
<i>install.rbo</i>	Contains information about the Sentinel RMS SDK version and serial number.
<i>ReleaseNotes</i>	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/>