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Sentinel RMS SDK v9.3.0

Release Notes for Windows (32-bit and 64-bit)

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Contents

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 v9.3.0 of the Sentinel RMS SDK. The last major release was Sentinel RMS v9.2.0.

New Features and Enhancements

This section provides details about the new features and enhancements included in the RMS v9.3.0 release.

Support for Returning a Commuter Authorization

In this release, a new workflow is introduced to return a commuter authorization for connected (to the License Manager) and disconnected users. This feature is also supported for repository licenses.

If the local commuter code is checked-out using Traditional API till RMS v9.2.1 (or earlier), you should return the same using Traditional API, before requesting a commuter code using Unified APIs (v9.3.0 and later).

The following enhancements are included as part of this workflow:

Enhancements in the sntl_licensing_transfer API

In this release, a new action tag <returnCommuter> is introduced to generate an Acknowledgment string for returning the commuter authorization, related to a particular feature and version.

Enhancements in the sntl_licensing_install API

In this release, the sntl_licensing_install API is enhanced to install the Acknowledgment string generated using the sntl_licensing_transfer API, to return the commuter authorization.

For more information, see the Commuter Licenses chapter of the Sentinel RMS SDK Developer's Guide and API Reference Guide.

Unified API Enhancements

The following enhancements related to Unified API are included in this release:

Support for Configuring the Licensing Library

In this release, a new API, *sntl_licensing_configure*, is introduced for configuring the licensing library. The supported licensing library configurations include:

- Customizing the default standalone license filename/path
  - Use the SNTL_ATTR_CONFIG_LSERVRC_FILE attribute for customizing the filename/path of the default standalone license file.
- Enabling trace writer file for troubleshooting.
  - Set the client trace level required by the client trace writer file using the SNTL_ATTR_CONFIG_TRACE_LEVEL attribute (mandatory).
  - Set the trace writer file using the SNTL_ATTR_CONFIG_TRACE_WRITER_FILE attribute.

Support for Customized Trace Writer Function

In this release, a new callback type SNTL_CALLBACK_TYPE_CUSTOM_TRACE_WRITER, is added to the sntl_licensing_register_callback API. This callback type is used for registering a trace writer function that handles the trace messages generated at run-time.

Support for Adding Contact Server List

In this release, the following attributes are added to the sntl_licensing_app_context_new API:

Attribute Key	Purpose
SNTL_ATTR_APPCONTEXT_CONTACT_SERVER_LIST	This attribute is used for setting the contact server list.
SNTL_ATTR_APPCONTEXT_ENABLE_EXHAUSTIVE_BROADCAST	This attribute is used to specify the discovery mechanism for License Managers.

Support for Returning the Status Information

This section briefly describes the various enhancements implemented in the sntl_licensing_get_info API:

Added New Query Types

In this release, the *sntl_licensing_get_info* API has been enhanced to provide the following additional information:

- lastStatusInfo - Provides the status code and status message returned by the last-called Unified API, related to an application context.
- statusInfo - Provides the status message corresponding to a particular status code specified in the scope XML.

New XML Response Fields for Existing Query Types

In this release, the following XML response fields are introduced in the appContextInfo query type of the sntl_licensing_get_info API:

- enableExhaustiveBroadcast - The discovery mechanism for License Managers.
- contactServerList - The list of License Managers.

Support for MSVS 2017 Compiler

Support for the Microsoft Visual Studio 2017 is added in this release. For more information, refer to the list of compilers and libraries section of the Sentinel RMS SDK Developer's Guide.

> 📝 **Note:** RMS libraries compiled with Microsoft Visual Studio 2015 are fully compatible with Visual Studio 2017. In this release, the RMS SDK does not include a separate library for Visual Studio 2017.

Enhancements in Java Interface for Unified APIs

In this release, the Java interface for Unified APIs is also updated to reflect the enhancements listed in the section Unified API Enhancements.

Enhancements in DotNet Interface for Unified APIs

In this release, the DotNet interface for Unified APIs is also updated to reflect the enhancements listed in the section Unified API Enhancements.

Introduced 64-bit Libraries for Cleaning and PT generation

The 64-bit permission ticket (PT) generation and persistence cleaning libraries are now available in the Sentinel RMS SDK. The following table provides a detailed description regarding the same:

RMS Libraries	Type	Location (in RMS SDK)
PT generation library	Static- liblsptgen64.lib	\<installdir\>\\<version\>\Development\C\Lib\<MSVS_Version\>\x64\Static
	Shared - liblsptgen64.dll	\<installdir\>\\<version\>\Development\C\Lib\<MSVS_Version\>\x64\DLL
Persistence cleaning library	Static - libclean64.lib	\<installdir\>\\<version\>\Development\C\Lib\<MSVS_Version\>\x64\Static
	Shared - not available	Not applicable

Support for Controlling the Persistence File Permissions

In this release, a new workflow is added to allow customization of persistence file permissions. The administrator can create the required persistence directories before using the client application (or before stand-alone persistence initialization) / License Manager start-up. It is important to note that:

• The parent directory permissions are automatically cascaded to the sub directories and files under these directories for new installations.

• The system administrator should set the required file permissions recursively if there is need of reassigning permissions.

For more information, contact Technical support.

Note: Make sure that the License Manager and licensed application are not running while assigning these permissions

Problems Corrected in This Release

In this release, the following problems are corrected:

ID	Problem Description
SM-423	Lsinit creates registry keys that break further installation of some software.
SM-2884	Unexpected value of Time Tamper Info struct.
SM-2941	Memory leak in Superpro Library.
SM-5801	The wlscgen utility (v9.1) crashes when 7.x template is applied.
SM-15406	Unexpected error (75) while checking out UTC based commuter license.
SM-15569	The VLSBatchUpdate API is not working properly due to ISFASTCID check.
SM-16257	The sntl_demo sample does not handle the NULL version case.
SM-16359	The lscgen utility (RMS v9.1) gets hanged after entering options.
SM-16774	Incorrect code snippet link in the PDF.
SM-16942	The lscgen - Global Defaults File section provides incomplete list (and sequence) of fields included in the Codeopts file for generating license.
SM-17493	The VLSdeleteLicenseFromFile API fails on Korean OS if windows user name is non english.
SM-17501	RMS 9.2 license generator (wlscgen.exe) it is not showing the older license template files.
SM-18417	RMS documentation inaccuracies.
SM-18418	Documentation enhancement request.
SM-19149	Server customized for hooking crashes on getting hooking request.
SM-21493	System wide locks need to be acquired during grace persistence initialization and clean-up.
SM-26053	Client application crashes in debug mode (debug assertion) on LSRequest/VLSsetFileNameExt call.
SM-28097	Memory leaks with v18 license.
SM-28369	Query about specifying Network addresses in license reservation file.

Installation Information

This section contains information about the installation of RMS SDK.

Before You Install

Before you begin installing the RMS SDK, note the following:

- Administrator Privileges - You must have administrator privileges to successfully install all the components.

- 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.

System Requirements

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

Hardware Requirements	Software Requirements
Processors: • x86 processors for 32-bit • x86-64 processors for 64-bit	**Operating Systems:** • 32-bit version of Windows 7, 8 (Desktop mode), 10, Windows Server 2008, 2008 R2, 2012, and 2012 R2 • 64-bit version of Windows 7, 8 (Desktop mode), 10, Windows Server 2008, 2012, 2012 R2 and 2016
Monitor and Settings: VGA monitor with 800 x 600 resolution (1024 x 768 recommended)	**Compilers:** • Microsoft Visual Studio 2008 Professional edition v9.0.30729.1 SP - For 32-bit and 64-bit • Microsoft Visual Studio 2010 Professional edition v10.0.30319.1 RTMRel - For 32-bit and 64-bit • Microsoft Visual Studio 2012 Professional edition v11.0.60610.01 Update 3 - For 32-bit and 64-bit • Microsoft Visual Studio 2013 Professional edition • Microsoft Visual Studio 2015 Professional edition • Microsoft Visual Studio 2017 Professional edition **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.
Hard Disk Space: Approximately 1.7 GB free hard disk space is required. Make sure 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.	**Java Runtime Environment:** Java Runtime Environment v1.6, 1.7 and 1.8 for the Java interface
RAM: 2 GB RAM on Windows 7, Windows 8, Windows 10 (Desktop mode), Windows 10, Windows Server 2012, 2012 R2 and 2016.	**Web Browser (for viewing HTML Helps):** • Internet Explorer 7.0 or later • Firefox 3.5 or later • Chrome 1.0 or later
	PDF File Viewer (for viewing PDF documents): Adobe Acrobat 4.0 (or later)

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 9.3.0 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
Development	Contains all the RMS libraries, header files, XSDs and source code for licensing and customization.
Manuals	Contains the various documentation items for Sentinel RMS.
Redistributable	Contains the utilities and files for your customers, including the Sentinel RMS License Manager installer.
Samples	Contains the sample programs for demonstrating the use of various RMS features and API.
VendorTools	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.
install.rbo	Contains information about the Sentinel RMS SDK version and serial number.
ReleaseNotes	This file.

Major Documentation Resources

The following are the major documentation resources for the product:

Developer's 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:

- PDF version is installed on the system can be accessed using the Doc Access Page (.htm) in the Manuals directory.

- The latest online copy can be accessed here:
  http://sentinelrms.safenet-inc.com/RMSDocumentation/Vendor/Default.htm

API Reference 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.

- The latest online copy can be accessed here:
  http://sentinelrms.safenet-inc.com/RMSDocumentation/Vendor/Default.htm

The Developer's Guide and API Reference Guide are bundled together as the Vendor's documentation. You can find it as the last item in its ToC (in the left-side pane).

System Administrator's 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.

- The latest online copy can be accessed here:
  http://sentinelrms.safenet-inc.com/RMSDocumentation/SysAdmin/Default.htm

License Generation API Reference Guide

Contains details about the License Generation API functions. To access, use the following ways:

- PDF version is available with the license generator module.

- The latest online copy can be accessed here:
  http://sentinelrms.safenet-inc.com/RMSDocumentation/Licgen/Default.htm

SCL Add on for RMS Documentation

The complete documentation of the SCL Add on for RMS is hosted at: *http://sentinelrms.safenet-inc.com/scl/*

For getting started, begin with the *SCL Add-on for RMS Overview Guide.*

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/