Sentinel RMS SDK 10.0.200

RELEASE NOTES FOR ANDROID ON ARM (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.

About This Document

This document contains details about the new features, enhancements, and installation of 10.0.200 Sentinel RMS. The last major release was Sentinel RMS v9.6.1.

What's New in this Release

This section lists the changes included in the Sentinel RMS 10.0.200 release.

Secured RMS License Manager Communication

An industry-standard secret-key authenticated encryption is now being used for securing the RMS License Manager communication with the various components. Prior to this release, a proprietary encryption algorithm was being used for securing the RMS License Manager communication. This impacts the exchange of communication messages:

- Between client application and RMS License Manager
- Between RMS License Managers in the redundant pool

For more information, refer to RMS License Manager Communication.

Modified License Loading Behavior on RMS License Manager Restart

With the new encryption algorithm in place, now when the v10.0.100 (or later) RMS License Manager is restarted, additional tasks related to key-exchange are performed by the running licensed application. During this interval, the licensed application attempting to contact the License Manager (such as for automatic renewal calls via auto timer), may return with error 210133 (SNTL_RESOURCE_LOCK_FAILURE). To overcome this, try calling the licensing API again after few seconds.

Introduced a Library to Maintain Support of Proprietary Encryption Algorithm

If under certain scenarios, you still want to use proprietary encryption algorithm, you need to deploy a separate compatibility-mode library with the v10.0.100 (or later) licensing libraries. To obtain this library, you need to contact Technical Support.

Updates in the RMS License Manager Configuration Options

In this release, a new command-line option `-enable-localhost-check` is added. This option applies restrictions to perform the following operations on the RMS License Manager from other machines in a network:

- Addition/installation of licenses

- Deletion/uninstallation of licenses
- Shutting down of RMS License Manager

For more information, refer to Sentinel RMS System Administrator Guide.

Introduced Unified API for Persistence Data Management

You can now manage the persistence data using Unified APIs through two newly introduced libraries—persistence initialization and persistence cleaning. These persistence libraries are available in the ../<Version>/development/ directory. Prior to this release, persistence data could be setup using the system initialization API, which is now deprecated along with the related samples and tools.

To setup the persistence data, you should now use the Persistence API. For details about the new approach to setup the persistence data, refer to Persistence Libraries.

Introduced New Samples

Following two new samples for C and Java interface are introduced:

- sntl_lspmgmtinit - Creates persistence data.
- sntl_lspmgmtclean - Repairs and resets the corrupted persistence files.

Support for 64-bit Utilities

Sentinel RMS utilities supported for AIX are now available in 64-bit as well.

lsrvdown

The lsrvdown utility and sample file are no longer supported.

Installation Directory Structure

- A new directory, Legacy, is introduced in the installation directory containing the deprecated persistence initialization and cleaning libraries, vendor tools, and samples.

End of Development ("EoD") for the Legacy (VLS) Licensing API

From the Sentinel RMS v10.0 onward, new developments would no longer be made to the legacy licensing (VLS) API in the upcoming General Availability ("GA") releases.

Unified APIs, introduced since v9.0.0 of Sentinel RMS, must be used for implementing licensing under all scenarios as these:

- Provide a compact API set with minimal, intuitive, and easy to remember semantics.
- Offer uniform licensing and features in C and Java implementations.
- Follow consistent approach for the on-premises deployment mode.

Issues Fixed in this Release

The following issues have been corrected in this release.

Tracking ID	Description	Workaround
SM-129643	The disk ID-based locking code of an AIX machine generated using 9.6.1 or an earlier version of the 32-bit licensing library or tool was inconsistent with the locking code of the 64-bit licensing library. This issue was specific to the 32-bit library and tool.	The inconsistency between the 32-bit and 64-bit locking codes has been fixed in this release. Generate the disk ID-based locking code again using v10.0.100 licensing library or tool. Use this locking code to generate the licenses again.

Issues Fixed in this Release

The following issues have been corrected in this release.

Internal Tracking ID	Description
SM-110136	Resolved the memory leak problem occurring on calling sntl_persistence_create, sntl_persistence_reset, sntl_persistence_repair APIs.
SM-107042	Update documentation to include 16001 and 16010 error code and descriptions.
SM-106411	Updated the description of 510007 and 510033 error codes.
SM-105682	Fixed the issue with the response of sntl_licensing_app_context_delete API.
SM-81624	Fixed the issue with VLSgetCommuterInfo showing wrong concurrency for checked-out feature.

System Requirements

The following table provides the minimum hardware and software requirements for using Sentinel RMS.

Build Environment

Hardware Requirements	Software Requirements
Processors: x86-64 processors for 64-bit	**Operating Systems:** > Red Hat Enterprise Linux (RHEL) 7.x > Red Hat Enterprise Linux (RHEL) 8.x > Debian Linux 9.x > Debian Linux 10.x > Ubuntu Linux 16.04 > Ubuntu Linux 18.04
Hard Disk (Minimum) As per the operating systems' specification.	**Compiler:** Clang (64-bit): 3.5
RAM Requirement As per the operating systems' specification.	**Java Runtime:** Java Runtime Environment version 1.6, 1.7 and 1.8 for the Java interface. **Android SDK:** Android SDK version 28.
	PDF File Viewer (for viewing PDF documents): Adobe Acrobat 4.0 (or later)

Deployment Environment

Hardware Requirements	Software Requirements
Processor: ARM (64-bit)	**Operating System(s):** > Android 8.x > Android 9.x > Android 10.x

NOTE Android application must have read/write access to the default storage location (sdcard).

Installation Information

This section contains important information related to the installation of Sentinel RMS v10.0.

Before installing the Sentinel RMS SDK, you must have the following:

> **Administrator Privileges**: Administrator privileges are required to successfully install all the components.

> **Sentinel RMS SDK Serial Number**: A valid serial number. The installer prompts you to enter the serial number provided to you.

Installation Instruction

The Sentinel RMS SDK is packaged as a tar file. To install Sentinel RMS SDK for Android, you need to first extract the contents of the package and then execute the installation script on Linux (64-bit).

1. Extract the contents of the package, using the following command:

```
tar -xvf RMSSDKx.x.xxxxAndroid.tar
```

2. Navigate to the slm_xxxx_android_combo_cdrom directory, and execute the install script:

```
cd slm_xxxx_android_combo_cdrom

sh INSTALL.sh
```

3. Accept the license agreement to proceed with installation.
4. Enter the path of installation directory.

> **NOTE** It is recommended NOT to install two non-Windows SDKs in the same directory.

5. Type the RMS SDK serial number. This serial number is contained in the Sentinel Order Credentials email and is unique for each software vendor.

Installed Directories

The following directories and files are installed.

Directory	Description
development	Contains all the RMS libraries, header files.
manuals	Documentation for 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.
install.rbo	Contains information about Sentinel RMS SDK version and serial number.
ReleaseNotes.pdf	This file.
Legacy	Contains deprecated RMS libraries and samples.

Sentinel RMS Documentation Resources

The following are the major documentation resources for the product. The latest documentation resources are also listed here:

Sentinel Software and Services Solutions Guide

This guide provides the complete overview of the 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 Developer 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 view the online version of the latest document, click here.

Sentinel RMS API Reference Guide

This guide contains details about all the API functions, including the licensing library, persistence management, and so on. Useful for developers integrating the API functions in the code.

> To view the online version of the latest document, click here.

Sentinel RMS System Administrator 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.

Sentinel Cloud Licensing (SCL) Add-on Installation and Configuration Guide

This guide describes the procedure for installing and configuring SCP for Cloud-Served Lease and On-premises deployment modes, respectively. This is applicable to Windows, Linux, Mac, Android, and Linux ARM 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.