

Sentinel RMS SDK v10.2

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

Release Version: v10.2

Document Number: 007-001471-001, Revision D

Release Date: December, 2023

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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.

Sentinel Cloud Licensing (SCL) Add-on for RMS, combined with the license enforcement features of Sentinel RMS and the entitlement management features of Sentinel EMS; makes a complete solution that provides the benefits of cloud licensing to applications deployed on-premises or hosted online. Usage collection and reporting is the most-significant advantage obtained with cloud-basedlicensing.

About This Document

This document contains details about the new features, enhancements, and installation of v10.2 Sentinel RMS. The last major release was Sentinel RMS v10.1.

What's New in this Release

This section lists the changes included in the Sentinel RMS v10.2 release.

Introduced Named User Licensing for Cloud Applications

Named user licensing is introduced for the Connected (Cloud LM) deployment mode. Your customer can manage the users authorized to consume a license. You need to implement user authorization using the following REST APIs:

REST API	Description
PUT /rmslm/features/{featureId}/licensedUserAccounts	Configures the user accounts list or replaces it.
PATCH /rmslm/features/{featureId}/licensedUserAccounts	Appends the new user accounts list to the existing list.
GET /rmslm/features/{featureId}/licensedUserAccounts	Obtains the existing user accounts list.
DELETE /rmslm/features/{featureId}/licensedUserAccounts	Deletes a particular user account from the user accounts list.

With the introduction of this feature, the Sentinel RMS license version is upgraded to v23. Refer to [Sentinel RMS API Reference Guide](#) for more information.

Introduced Rate Limit for Connected (Cloud LM) Licensing

Rate limiting is a technique to limit network traffic to prevent users from exhausting system resources on RMS CloudLM. If a licensed application sends API calls beyond the configured limit, RMS Cloud LM returns the following:

- > HTTP status code 429 (TOO MANY REQUESTS) - For applications using the Cloud LM REST API
- > Error 210267 (SNTL_RATE_LIMIT_BREACHED) - For applications using SCP-integrated library (SCL Add-on version 10.2 and later)

You can retry calling the API as per the retry-after time advised in the HTTP response header (under [RMS Cloud License Manager REST API—Basic Concepts](#)) or the [lastStatusInfo](#) API.

Changes in Username and Hostname Specifications in RMS Cloud LM

The username and hostname in Cloud LM REST APIs can now include 320 UTF-8 characters.

Enhancements Included in This Release

Updated C Samples

The Unified API C samples are modified to share status description along with the status code. Prior to this release, the samples showed only the status code.

Lease Sample Updated to Remove Force Sync

The sample for the lease deployment mode (`sntl_lease_demo`) is updated to remove the force sync operation. Force sync is meant for use only when explicit synchronization of lease is required. For more details about the API calls required for the lease deployment mode, refer to the "Configuring Lease Mode" section under the Common Use Cases (for [C](#), [Java](#), and [.NET](#)).

SCP Performance Enhancements

SCP module has been enhanced for better handling of uploading of large number of usage files.

Usage Creation Allowed to All Users

The usage data for lease and on-premises deployment modes can now also be created for non-root, non-group (other) users. Before this release, this creation was limited to root and group users only. If desired, you can customize this new default setting and restrict usage creation permissions. For more information, contact Technical Support.

Issues Fixed in this Release

The following issues have been corrected in this release:

Service Request	Issue Description
SM-156653	Fix the documentation in .NET/Java interface.
SM-155381	Reserved network licenses consumed a double number of seats.
SM-154599	The in-use count does not get incremented after an aggregate license switch.
SM-154487	License file permission changing while deleting the licenses from file (Iservrc).
SM-152319	Incorrect in-use value for network license on WlmAdmin.
SM-151041	Incorrect count of available unreserved tokens in Ismon.
SM-146930	Documentation updated caused by the "Error in parsing usage record" error.
SM-143835	Random locking codes generated on Linux ARM.
SM-143714	Developer Guide needed to be updated for the Issrv32/64 library.
SM-143586	Equivalent functionality required in Unified API for VLSdisableLocalRenewal.
SM-143187	Cancel lease hanged when grace licensing and standalone licensing are used together.
SM-142959	Group reservation documentation updated for user name.
SM-142832	Sentinel Cloud Plug-in should switch to NO_PROXY mode when the AUTO_PROXY (PAC_SCRIPT) mode failed.
SM-112946	RMS License Manager stopped responding when the usage files list was very long.

System Requirements

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

Build Environment

Hardware Requirements	Software Requirements
Processors: <ul style="list-style-type: none">> x86 processors (32-bit)> x86-64 processors (64-bit)	Operating Systems: <ul style="list-style-type: none">> 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> Ubuntu Linux 20.04
Hard Disk (Minimum) As per the operating systems' specification.	GCC: <ul style="list-style-type: none">> 32-bit:<ul style="list-style-type: none">• Soft Float: arm-linux-gnueabi-gcc-4.7• Hard Float: arm-linux-gnueabi-hf-gcc-4.7> 64-bit: aarch64-linux-gnu-gcc-4.8
RAM Requirement As per the operating systems' specification.	Java Development Kit (JDK): Java SE 8 (minimum supported version)
	Web Browser (for viewing HTML5 Documents): <ul style="list-style-type: none">> Mozilla Firefox> Google Chrome> Microsoft Edge PDF File Viewer (for viewing PDF documents): Adobe Acrobat 4.0 (or later)

Deployment Environment Recommendations

Hardware Requirements	Software Requirements
Processor: ARM	Operating System: Linux

Hardware Requirements	Software Requirements
<p>Architecture:</p> <ul style="list-style-type: none">> ARMv7-A (32-bit Soft Float)> ARMv7-A (32-bit Hard Float)> ARMv8-A (64-bit)	<p>Java Runtime:</p> <p>Java Runtime Environment version 1.8</p>

Installation Information

This section contains important information related to the installation of Sentinel RMS v10.2.

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 Instructions

Ensure that your build environment is set as per the specification described in the [System Requirements](#) section.

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

```
tar -xvf RMSSDKxx.x.x.xxLinuxArm.tar
```

2. Change the directory where the installation script *INSTALL.sh* exists (*slm_xx.x.x_linux_arm_cdrom* directory).
3. Type *sh INSTALL.sh* to start the installation.
4. Accept the license agreement to proceed with the installation.
5. Enter the path of the installation directory.

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

6. You will be required to specify the Sentinel RMS SDK serial number. This serial number is contained in the Sentinel Order Credentials email 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.

Installed Directories

The following directories and 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.
redistributable	The utilities and files for your customers, including the Sentinel RMS License Manager.
samples	Contains the sample programs for demonstrating the use of various RMS features and API functions.
vendorTools	Contains the utilities and files for your use.
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](#).