

# Sentinel RMS SDK v9.8.1

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

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# Product Description

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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-connected licensing to applications deployed on-premises or hosted online. Usage collection and reporting is the most-significant advantage obtained with cloud-connected licensing.

## About This Document

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This document contains details about the new features, enhancements, and installation of v9.8.1 Sentinel RMS. The last major release was Sentinel RMS v9.8.0.

## What's New in this Release

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This section lists down the new features included in Sentinel RMS v9.8.1 release.

### Using RSA Algorithm for RMS License Manager Communication

The industry-standard RSA algorithm is now being used for securing the RMS License Manager communication with the various components including the licensed application. Prior to this release, proprietary encryption algorithm was 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
- > Between SCP service and RMS License Manager

For more information, refer to "RMS License Manager Communication" section in [Sentinel RMS Developer Guide](#).

**See Also:** [Modified License Loading Behavior on RMS License Manager Restart](#)

### 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 v9.8.1 (or later) licensing libraries. To obtain this library, you need to contact [Technical Support](#).

For more information about this library, refer to "RMS License Manager Communication" section in [Sentinel RMS Developer Guide](#).

## 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](#).

## Modified License Loading Behavior on RMS License Manager Restart

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With the new encryption algorithm in place, now when the v9.8.1 (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.

## Issues Fixed in this Release

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The following issues have been corrected in this release.

| Internal Tracking ID | Description  |
|----------------------|--|
| SM-108064            | Documentation update for LSUSGHOSTNAME environment variable. |

# System Requirements

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

## Build Environment Recommendations

| Hardware Requirements   | Software Requirements  |
|---|--|
| <b>Processors:</b> <ul style="list-style-type: none"><li>&gt; x86 processors (32-bit)</li><li>&gt; x86-64 processors (64-bit)</li></ul>   | <b>Operating Systems:</b> <ul style="list-style-type: none"><li>&gt; Red Hat Enterprise Linux (RHEL) 7.x</li><li>&gt; Red Hat Enterprise Linux (RHEL) 8.x</li><li>&gt; Debian Linux 9.x</li><li>&gt; Debian Linux 10.x</li><li>&gt; Ubuntu Linux 16.04</li><li>&gt; Ubuntu Linux 18.04</li><li>&gt; Ubuntu Linux 20.04</li></ul> |
| <b>Hard Disk (Minimum)</b><br>1.5 GB of free hard disk space  | <b>GCC:</b> <ul style="list-style-type: none"><li>&gt; <b>32-bit:</b><ul style="list-style-type: none"><li>• <b>Soft Float:</b> arm-linux-gnueabi-gcc-4.7</li><li>• <b>Hard Float:</b> arm-linux-gnueabi-hf-gcc-4.7</li></ul></li><li>&gt; <b>64-bit:</b> aarch64-linux-gnu-gcc-4.8</li></ul>                                    |
| <b>RAM (Minimum)</b> <ul style="list-style-type: none"><li>&gt; 4 GB capacity for:<ul style="list-style-type: none"><li>• Red Hat Enterprise Linux (RHEL) 8.x</li></ul></li><li>&gt; 2 GB capacity for:<ul style="list-style-type: none"><li>• Red Hat Enterprise Linux (RHEL) 7.x</li><li>• Ubuntu Linux 16.04</li><li>• Ubuntu Linux 18.04</li><li>• Ubuntu Linux 20.04</li><li>• Debian Linux 10.x</li></ul></li><li>&gt; 512 MB capacity for:<ul style="list-style-type: none"><li>• Debian Linux 9.x</li></ul></li></ul> | <b>Java Development Kit (JDK):</b><br>Java SE 8 (minimum supported version)<br><br><b>Web Browser (for viewing HTML5 Documents):</b> <ul style="list-style-type: none"><li>&gt; Mozilla Firefox</li><li>&gt; Google Chrome</li></ul> <b>PDF File Viewer (for viewing PDF documents):</b><br>Adobe Acrobat 4.0 (or later)         |

## Deployment Environment Recommendations

| Hardware Requirements  | Software Requirements  |
|--|--|
| <b>Processor:</b><br>ARM   | <b>Operating System:</b><br>Linux                            |
| <b>Architecture:</b> <ul style="list-style-type: none"><li>&gt; ARMv7-A (32-bit Soft Float)</li><li>&gt; ARMv7-A (32-bit Hard Float)</li><li>&gt; ARMv8-A (64-bit)</li></ul> | <b>Java Runtime:</b><br>Java Runtime Environment version 1.8 |

# Installation Information

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This section contains important information related to the installation of Sentinel RMS v9.8.1.

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

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

```
tar -xvf RMSSDK9.8.1.xxxxLinuxArm.tar
```

2. Change the directory where the installation script *INSTALL.sh* exists (*slm\_0981\_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

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The following directories and files are installed.

| Directory or File       | Description  |
|-------------------------|--|
| <b>development</b>      | Contains all the RMS libraries, header files, and source code for licensing and customization purpose. |
| <b>manuals</b>          | Documentation for the Sentinel RMS SDK.  |
| <b>redistributable</b>  | The utilities and files for your customers, including the Sentinel RMS License Manager.                |
| <b>samples</b>          | Contains the sample programs for demonstrating the use of various RMS features and API functions.      |
| <b>vendorTools</b>      | Contains the utilities and files for your use.   |
| <b>install.rbo</b>      | Contains information about Sentinel RMS SDK version and serial number.                                 |
| <b>ReleaseNotes.pdf</b> | This file.   |
| <b>Legacy</b>           | Contains deprecated RMS libraries and samples.   |



# Sentinel RMS Documentation Resources

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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 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](#).

## 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](#).