Sentinel RMS SDK v9.1.0

Solaris x86 (32 and 64-bit) Release Notes

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Contents

Sentinel RMS SDK v9.1.0 for Solaris x86 (32 and 64-bit) - Release Notes

About This Document

This document contains details about the new features and installation of the Sentinel RMS v9.0.0 for Solaris x86. This release includes feature changes and problem fixes since the last major release v8.6.1.

Product Overview

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 licensing management features of Sentinel EMS, it makes a complete solution that provides the benefits of cloud-connected licensing to applications deployed in customer's network or hosted online. Usage collection and reporting is the most significant advantage obtained with cloud-connected licensing.

What's New in Sentinel RMS v9.1.0?

This section provides details about the new features and enhancements included in the RMS v9.1 release:

Unified API Enhancements

The following major enhancements, related to the Unified API, are included in this release. For more information, refer to the chapter "Unified API" of the Sentinel RMS SDK API Reference Guide:

Added New Attributes in the sntl_licensing_app_context_new API

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

Attribute Key	Purpose
SNTL_ATTR_APPCONTEXT_DEFAULT_ERROR_HANDLER	Sets the default error handler for troubleshooting error conditions.
SNTL_ATTR_APPCONTEXT_TRACE_LEVEL	Sets the tracing of the various licensing operations.
SNTL_ATTR_APPCONTEXT_SERVER_PORT	Sets a network port, different from the default, for communicating with the License Manager.
SNTL_ATTR_APPCONTEXT_BROADCAST_INTERVAL	Sets the timeout interval (in seconds) to find a License Manager in the subnet.
SNTL_ATTR_APPCONTEXT_AUTO_REFRESH	Defines the behavior of the automatic license refresh.
SNTL_ATTR_APPCONTEXT_XDISPLAYNAME	Sets the name of the X display where the user needs to display the application.
SNTL_ATTR_APPCONTEXT_VENDOR_DEFINED_ SHARINGID	Sets the special vendor-defined ID that can be used for license sharing decisions.

sntl_licensing_get_info API Enhancements

This section briefly describes the various enhancements done 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:

- appContextInfo - The information about the various parameters set in an application context.

- featureCumulativeTrialInfo - The cumulative information about the trial period of trial licenses for the given feature.

- serverInfo - The information about the License Manager.

- serverPoolInfo - The information about a group of License Managers hosting the same license for high availability.

Renaming of Query Type Macros

In this release, the existing query type macros of the sntl_licensing_get_info API are also renamed to reflect their actual use. The following table includes a list of such query types:

Old Query Type (v9.0.0)	Renamed to...(v9.1.0)
SNTL_FEATURE_INFO	SNTL_QUERY_FEATURE_INFO
SNTL_LICENSE_INFO	SNTL_QUERY_LICENSE_INFO
SNTL_CLIENT_INFO	SNTL_QUERY_CLIENT_INFO
SNTL_LIBRARY_INFO	SNTL_QUERY_LIBRARY_INFO
SNTL_RECIPIENT_INFO	SNTL_QUERY_RECIPIENT_INFO
SNTL_FINGERPRINT_INFO	SNTL_QUERY_FINGERPRINT_INFO

New XML Response Fields for Existing Query Types

In this release, new XML response fields have been introduced in the sntl_licensing_get_info API, in place of few existing fields to reflect their actual usage. The existing XML fields have been marked as obsolete and will be deprecated in the future releases. The following table includes a list of obsolete XML fields and the corresponding new XML response fields:

Query Type	Existing XML Response Fields (v9.0.0)	New XML Response Fields (v9.1.0)
SNTL_QUERY_ FEATURE_INFO	trialDaysCount, trialElapsedHours, trialCalendarPeriodLeft trialElapsedPeriodLeft	trialDays trialSeconds trialDaysLeft, trialSecondsLeft
SNTL_QUERY_ LICENSE_INFO	trialDaysCount trialElapsedHours trialCalendarPeriodLeft trialElapsedPeriodLeft	trialDays trialSeconds trialDaysLeft, trialSecondsLeft
SNTL_QUERY_ CLIENT_INFO	sharedIdName	vendorDefinedSharingId
	clientVendorUsageData	vendorUsageData
	isSharing	sharedClientCount

Added New XML Response Fields

In this release, the following new XML response fields are also introduced:

Query Type	New XML Response Field
SNTL_QUERY_FEATURE_ INFO	commutedFromServer - The License Manager from which the license is obtained for the commute action.
SNTL_QUERY_LICENSE_ INFO	activationBirthTime - The entitlement start time (epoch time). activationExpiryTime - The entitlement expiration time (epoch time).

Enhancement in the sntl_licensing_get_session_info API

In this release, a new XML field *refreshStatus* is added to the output of the sntl_licensing_get_session_info API to inform about the current status of the refresh process.

Renaming of Attribute Key Names

In this release, few attribute keys are renamed to reflect their actual use. The following table includes a list of such attributes:

API	Old Attribute Key (v9.0.0)	Renamed to...(v9.1.0)
sntl_licensing_login_ attr	SNTL_ATTR_LOGIN_VENDOR_ IDENTIFIER	SNTL_ATTR_LOGIN_VENDOR_ISOLATION_ IDENTIFIER
sntl_licensing_ logout_attr	SNTL_ATTR_LOGOUT_UNITS_ CONSUMED	SNTL_ATTR_LOGOUT_UNITS_TO_RELEASE
sntl_licensing_login_ attr	SNTL_ATTR_LOGIN_CHALLENGE_ SIZE	This attribute has been removed
sntl_licensing_ refresh_attr	SNTL_ATTR_REFRESH_ CHALLENGE_SIZE	This attribute has been removed

Traditional API Enhancements

The following major enhancements, related to the Traditional API, are included in this release. For more information, refer to the Sentinel RMS SDK API Reference Guide:

Obtaining the Start and Expiration Time of a Checked-out Commuter License

Starting v9.1.0, you can obtain the start and expiration time of a checked-out commuter license, in hours and minutes. To support this enhancement, the following changes are made:

- The following additional fields are introduced in the *VLScommuterInfo* structure:

  - structSz

  - birth_hours

  - birth_minutes

  - death_hours

  - death_minutes

- Introduced the *VLSgetCommuterInfoExt* API, an extension of the *VLSgetCommuterInfo* API, to obtain the start and expiration time of a checked-out commuter license.

> Developers using the Unified API, can use the Unified API sntl_licensing_get_info() with query type featureInfo and licenseInfo, to retrieve the commuter information. Make sure to have set the contact server as "no-net"

Licenses with Entitlement Start and Expiration Time

Starting v9.1.0, licenses generated include the entitlement start and expiration time values (epoch time), useful for SCL Add-on for RMS customers.

To support this enhancement, the following updates are also made:

New Fields in the CodeT (License), VLSfeatureInfo and VLSlicenseInfo structures

The following fields are added in the CodeT (RMS License Structure), VLSfeatureInfo and VLSlicenseInfo structures:

- activation_birth_time

- activation_expiry_time

For more information, refer to the Sentinel RMS License Generation API Reference Guide and Sentinel RMS SDK API Reference Guide.

> You can retrieve the value of the new fields using the VLSgetFeatureinfo, VLSgetLicenseInfo and sntl_licensing_get_info APIs.

License Version Upgraded to v17

Due to updates in the license structure, the license version has been upgraded to v17.

Enhancements in the Java Interface for Unified API

In this release, the Java interface for Unified APIs is also updated to reflect the following enhancements:

- The Unified API enhancements listed in the section "Unified API Enhancements".

- Renamed the Java interface installation directory from *Java* to *java-jna.*

Miscellaneous Changes

In this release, the following changes are also included:

Increased Size of Vendor Usage Data

The length of Vendor Usage Data has been increased from 100 to 255 bytes. This information will be reflected in the Raw usage data report of the Sentinel EMS. For more information, see the Sentinel EMS User's Guide.

Documentation Changes

In this release, the following major documentation changes are also included:

Separate Document for the License Generation API

Starting version 9.1.0, the License Generation API are moved *from* the API Reference Guide *to* the Sentinel RMS License Generation API Reference Guide. Prior to this release, these API were included in the Sentinel RMS SDK API Reference Guide. The document is available in the PDF format only, under the Sentinel RMS SDK installation.

Removal of the HTML-based Help in the SDK

The HTML-based Help for the following documents is no longer included in the RMS SDK. Instead, use of the hosted Online Help is recommended.

- Sentinel RMS SDK API Reference Guide

- Sentinel RMS SDK Developer's Guide

HTML 5 based Online Help

The Online Help is in the HTML 5 format and offers the following advantages:

- Full topic URLs for better link sharing: In HTML5 Help, each topic has a unique URL so they can be shared, emailed or saved in the browsers bookmarks easily.

- Better search results and display: In HTML5 output, the search feature is included in a search bar above the topics. This is in contrast to the previous Help which displayed the Search option in an accordion or tab in the left-side of the page. Furthermore, the Search output offers Google-style search results and display. An example of the HTML5 based Help is shown here: *http://sentinelrms.safenet-inc.com/scl/*

What's New in the SCL Add-on for RMS?

SCL Add on for RMS v9.1 includes the following major enhancements. To learn more about them, refer to its Release Notes and *SCL Add-on for RMS Overview Guide*:

- **Introduced Cloud Served – Connected License Deployment Mode**
  In addition to the *on-premise* and *Cloud Served - Lease* deployment modes, the *Cloud Served - Connected* deployment is now also supported. This mode is primarily meant for hosted and / or always connected applications to leverage the benefits of cloud licensing.

- **Support for Named User Licensing**
  For *Cloud Served - Connected* deployment, Named User Licensing is also supported. It allows ISVs to create licenses that can be consumed only by specific users or entities.

- **Support for Usage Count Multiplier**
  Usually, each licensing session consumes one count per a login-logout call sequence. At times, when vendor wants to represent this consumption differently, then a usage count multiplier value can be specified, both at the start of the session (login) and / or at its end (logout).

- **Support for Peak Concurrency**
  Peak Concurrency obtains usage statistics about the maximum number of concurrent sessions achieved during a given period.

- **Redundant License Manager Support for Lease Licenses**
  The License Managers in the *Cloud Served - Lease* deployment mode can now be configured in redundant fashion to provide high-availability when the primary License Manager goes down.

Problems Corrected in This Release

In this release, the following problems are corrected:

User Story / Service Request ID	Problem Description
RMS-6320	After revocation, the aggregate license seat count changed to no limit.
RMS-6321	The license sharing functionality failed to work properly when the holdtime value was specified.
RMS-6369	Modify the description of the VLSgetFeatureInfo (num_licenses field).
RMS-6590	The VLSsetTimeOutInterval() API could not handle timeout interval value of less than 3 seconds correctly.
RMS-6912	Documentation correction required in the VLSrevokeByPermissionTicket API.
RMS-7062	Mention the frequency of trial usage data refresh in the VLSgetTrialUsageInfo API documentation.
RMS-7095	The lscgen - Command-Line Options page specifies incorrect format for the locking information of redundant License Managers.
RMS-7325	Correct the description of the sntl_licensing_login_attr API.

Installation Information

This section contains following information about installation of the product:

Before You Install...

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

Administrator Privileges

You must have the 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 specific to you.

System Requirements

To use the Sentinel RMS, the minimum hardware and software requirements are:

Hardware Requirements	Software Requirements
Processors: x86 processors for 32-bit x86-64 processors for 64-bit	**Operating Systems:** For 32-bit applications: Solaris x86 5.10, 5.11 For 64-bit applications: Solaris x86-64 5.10, 5.11
Monitor and Settings: VGA monitor with 800 x 600 resolution (1024 x 768 recommended)	**Compilers:** GCC Compiler v4.5.2 (32-bit) GCC Compiler v4.5.2 (64-bit) Libc v 1.1 (32-bit, 64-bit)
Hard Disk Space: 100 MB free hard disk space	**Java Runtime Environment**: Java Runtime Environment v1.6 (and above) for the Java interface
RAM: 128 MB RAM	

Installation Instructions

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

    ```
    tar -xvf RMSSDK9.1.0.0104Sol.tar
    ```

2. Change the directory where the installation script *install.sh* exists. Afterward, type
    `sh install.sh` to start the installation.

3. Accept the license agreement to proceed with the installation.

4. You will be required to specify the RMS SDK serial number-included with the product packaging to complete the installation.

5. You will be required to choose whether you want to allow the License Manager to start automatically on system reboot. If you allow this configuration, you will be required to reboot. However, if you do not allow this configuration, you will need to manually start the License Manager (from the */redistributable/licenseManager* directory) each time you reboot the system.

Installed Directories

The following directories\files are installed:

Directory or File	Description
development	Contains all the RMS libraries, header files, and source code for licensing interfaces.
manuals	Documentation for the Sentinel RMS SDK.
samples	Samples that illustrate the various features of Sentinel RMS.The include files, which provide the prototypes for various Sentinel RMS library functions.
vendorTools	Contains the utilities and files for your use.
redistributable	The utilities and files for your customers, including the Sentinel RMS License Manager installer.
ReleaseNotes.pdf	This file.

Major Documentation Resources

This section provides details about the major documentation resources for the product:
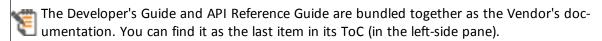
Developer's Guide

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. The PDF version is installed on the system in the *Manuals* directory.

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.*

Technical Support

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:

  - Phone: 800-545-6608 (US toll free), +1-410-931-7520 (International)

  - Regional Support Contact Information: https://sentinel.gemalto.com/technical-support-sm/

  - E-mail: support@safenet-inc.com

  - URL: https://sentinel.gemalto.com/technical-support-sm/

- **Downloads** - You may want to check out updated installers and other components here: https://sentinel.gemalto.com/technical-support-sm/