

Sentinel[®]RMS

Release Notes

v8.5.2 for Windows (32-bit and 64-bit)



Document Revision History

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Confidential Information

The Sentinel RMS SDK is designed to protect your applications from unauthorized use. The less information that unauthorized people have regarding your security system, the greater your protection. It is in your best interest to protect the information herein from access by unauthorized individuals.

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Sentinel RMS v8.5.2 for Windows (32 and 64-bit) - Release Notes

About This Document

This document contains details about the new features and installation of the product. This is a service pack release and replaces any previous release.

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.

This is a service pack release and replaces any previous release.

What's New in This Release?

This section provides details about the problems corrected in this release.

Enhancement in the Persistence Cleaning API (SRs 156456, 156462, and 141721)

Inconsistent behavior was observed in using the persistence cleaning APIs—VLScleanStandalonePersistenceInfo and VLScleanNetworkPersistenceInfo. For example, the time tampering persistence for licensing library versions 8, v8.2 and v8.4 licenses was successfully cleaned using the VLScleanStandalonePersistenceInfo API. However, the operation failed for version 7, 8.3 and 8.5 licenses using the same API.

To correct this problem, changes have been made in the persistence cleaning APIs' design so that now a user can pass the actual version as the first parameter (*clientLibVersion* and *serverVersion* for the VLScleanStandalonePersistenceInfo and VLScleanNetworkPersistenceInfo API respectively).

Refer to the "Chapter - Persistence Cleaning API" in the Sentinel RMS SDK API Reference Guide for details. Alternately, the documentation can also be accessed [here](#).

Expanded Internationalization Support

The Internationalization support is expanded in this release to cover all the localized versions of Microsoft® Windows®. This support is applicable to the RMS SDK client libraries and License Manager so that these components can be installed on any non-English OS and run from any localized path complying to UTF-8 encoding on Microsoft Windows. Earlier, this support was limited to double-byte compliant systems.

In this release, the exceptions to this support are noted below:

- A localized path cannot be specified using any RMS API, environment variables, Code-Cover, and various tools and utilities.
- The Custom installation option for the RMS SDK cannot be used on non-English operating systems. However, installation on the default path can be done successfully.
- The localized user and host names are not supported for usage logging, locking, and in group reservation files.



In the `license_info_struct`, a new member "license_storage_unicode" is added that will obtain the localized path by converting its value to wide char using the Windows API, `MultiByteToWideChar`. Use of this field is recommended to facilitate Internationalized applications.

Memory Leak Problem with Volume Transaction Licensing APIs (SR 153789 and 163088)

The memory leak issues observed with the following volume transaction licensing APIs are fixed in this release:

- VLSgetConsumeLimit
- VLSsetConsumeLimit
- VLSgetContextData
- VLSsetContextData

Error 18 Not Shown for Expired Licenses (SRs 152603 and 157897)

Since the 8.5.0 release, the appropriate error (LS_LICENSE_EXPIRED) was not shown for expired licenses. The problem is corrected in this release. The behavior is now rolled back and is in sync with the 8.4.x release. As a result, now the expired licenses are loaded during the License Manager initialization. The LS_LICENSE_EXPIRED error would be shown on license request call (whereas the query calls would succeed).

Documentation Enhancements

The following major documentation updates are included in this release:

- The following RMS documentation is now available online:
 - Sentinel RMS SDK Developer's Guide and Sentinel RMS SDK API Reference Guide are bundled together as the Vendor's documentation and can be accessed at:
<http://sentinelrms.safenet-inc.com/RMSDocumentation/Vendor/Default.htm>



You can find the API reference guide as the last item of the Help Table of Contents (in the left-side pane).

- Sentinel RMS SDK System Administrator's Guide can be accessed at:
<http://sentinelrms.safenet-inc.com/RMSDocumentation/SysAdmin/Default.htm>
- Updated the documentation of persistence cleaning APIs in the Sentinel RMS SDK API Reference Guide.

Installation Information

This section contains following information about installation of the product:

- ["Before You Install..." on page 5](#)
- ["System Requirements" on page 6](#)
- ["Installation Instructions" on page 8](#)
- ["Installed Directories" on page 10](#)

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 SafeNet. The installer prompts you to enter the serial number specific to you.

Check the Firewall Settings

Allow the Sentinel RMS License Manager through the system firewall. You will be prompted for this during the installation.

System Requirements

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


Hardware Requirements	Software Requirements
<p>Processors: x86 processors for 32-bit and x86-64 processors for 64-bit</p>	<p>Operating Systems:</p> <p>For Server Computer:</p> <ul style="list-style-type: none"> ■ 32-bit versions of Windows Server 2003 and 2008 ■ 64-bit version of Windows server 2003, 2008, and 2008 R2 <p>For Client Computer:</p> <ul style="list-style-type: none"> ■ 32-bit version of Windows XP, Vista, and 7 ■ 64-bit version of Windows XP, Vista, and 7 <div style="border: 1px solid black; padding: 5px; margin-top: 10px;">  The RMS SDK is no longer supported on Windows 2000. </div>
<p>Monitor and its Settings: VGA monitor with 800 x 600 resolution (1024 x 768 resolution recommended)</p>	<p>Compilers:</p> <ul style="list-style-type: none"> ■ Microsoft Visual Studio 6 for 32-bit ■ Microsoft Visual Studio 2005 for 64-bit ■ Microsoft Visual Studio 2008 for 32 and 64-bit ■ Microsoft Visual Studio 2010 for 32 and 64-bit
<p>Hard Disk Space: 1150 MB free hard disk space</p> <div style="border: 1px solid black; padding: 5px; margin-top: 10px;">  Make sure that the “initial size (in MB)” allowed for “pagefile” per drive remains available after you have installed RMS. Else, the space crunch may affect your system’s performance. </div>	<p>Java Runtime Environment: Java Runtime Environment v1.5 or higher for the Java interface</p>
<p>RAM:</p> <ul style="list-style-type: none"> ■ 128 MB RAM on Windows XP and 2003 ■ 1 GB RAM on Windows Vista and other operating systems (recommended, else you might experience slow installation) 	<p>Web Browser (for viewing Online Helps): Internet Explorer 7.0 or later, Firefox 3.5 or later, Safari 4.0 or later, Google Chrome</p>
<ul style="list-style-type: none"> ■ Peripherals: A USB port or a parallel port to attach the license meter key. This is required on the system where licenses are to be generated. 	<p>PDF File Viewer (for viewing PDF documents): Adobe Acrobat 4.0 (or later)</p>

Hardware Requirements	Software Requirements
<ul style="list-style-type: none">■ CD-ROM drive (required only if you received the RMS SDK installer on a CD).	

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 8.5.2 Software**. The Welcome screen appears.



 If you are installing the RMS SDK using the steps mentioned 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 SDK serial number. This serial number is contained in the Sentinel RMS SDK product packaging and is unique for each developer. Entering this number customizes your SDK.
6. You may modify the SDK installation directory. The default installation directory is:
 - On 32-bit - `<OSdrive>:\Program Files\SafeNet Sentinel\Sentinel RMS Development Kit\<version>\English`
 - On 64-bit - `<OSdrive>:\Program Files (x86)\SafeNet Sentinel\Sentinel RMS Development Kit\<version>\English`




The Custom installation option for the RMS SDK cannot be used on non-English operating systems. However, installation on the default path can be done successfully.

7. Choose the installation as **Complete** or **Custom**.
8. You are prompted for modifying the system firewall settings. Keep the checkbox selected to allow communication with the License Manager. This setting adds the License Manager in your system firewall's exceptions list. Clearing the checkbox blocks the communication with the License Manager (not recommended).
9. Follow the on-screen instructions to finish the installation.
10. When the installation is complete, the StartHere screen may reappear prompting you to license applications right away. However, use this option only if you want to license your executables and DLLs using the RMS CodeCover, a wizard-based automatic protection method.

Installed Directories

The following directories\files are installed:

Directory or File	Description
\MsvcDev	The licensing (client libraries), header files, and source code for licensing and customization purpose
<i>\Include</i>	The header files that provide prototypes for the licensing and license generator API functions.
<i>\Lib\Win32\DLL</i>	The dynamic libraries for the licensing API functions for 32-bit Windows. The supported compiler is Microsoft VS 6.0.
<i>\Lib\Win64\DLL</i>	The dynamic libraries for the licensing API functions for 64-bit Windows. The supported compiler is Microsoft VS 2005.
<i>\Lib\Win64\DLL</i>	The dynamic libraries for the licensing API functions for 64-bit Windows. The supported compiler is Microsoft VS 2005.
<i>\Lib\Win64\Static</i>	The static libraries for the licensing and license generator API functions for 64-bit Windows. The supported compiler is Microsoft VS 2005.
<i>\Lib\MSVS2008\Win32\DLL</i>	The dynamic libraries for the licensing API functions for 32-bit Windows. The supported compiler is Microsoft VS 2008.
<i>\Lib\MSVS2008\Win32\Static</i>	The static libraries for the licensing and license generator API functions for 32-bit Windows. The supported compiler is Microsoft VS 2008.
<i>\Lib\MSVS2008\Win64\DLL</i>	The dynamic libraries for the licensing API functions for 64-bit Windows. The supported compiler is Microsoft VS 2008.
<i>\Lib\MSVS2008\Win64\Static</i>	The static libraries for the licensing and license generator API functions for 64-bit Windows. The supported compiler is Microsoft VS 2008.
<i>\Lib\MSVS2010\Win32\DLL</i>	The dynamic libraries for the licensing API functions for 32-bit Windows. The supported compiler is Microsoft VS 2010.
<i>\Lib\MSVS2010\Win32\Static</i>	The static libraries for the licensing and license generator API functions for 32-bit Windows. The supported compiler is Microsoft VS 2010.
<i>\Lib\MSVS2010\Win64\DLL</i>	The dynamic libraries for the licensing API functions for 64-bit Windows. The supported compiler is Microsoft VS 2010.
<i>\Lib\MSVS2010\Win64\Static</i>	The static libraries for the licensing and license generator API functions for 64-bit Windows. The supported compiler is Microsoft VS 2010.
<i>\Samples\API</i>	The Microsoft VS 6.0 project workspaces for the applications contained in the \Client\Win32 directory. Also contains the workspaces for utilities, including Islic, Ismon, and lservdown.

Directory or File	Description
	 The \MSVS2008\API and \MSVS2010\API directories contain similar workspaces for Microsoft VS 2008 and 2010, respectively.
\Samples\Customize components	The Microsoft VS 6.0 based source code for customizing the following requirements: Implementing additional encryption/decryption logic for the licenses generated. Implementing an additional layer for encrypting and decrypting the messages exchanged between the clients and the RMS License Server. Implementing the standard custom and extended custom locking criteria. Modifying the default implementation of time tampering (for network environments only). License Server hooking (for network environments only). The \MSVS2008\Customize components and \MSVS2010\Customize components directories contain similar source code for Microsoft VS 2008 and 2010, respectively.
\Demo	The sample programs for evaluation
\Client\Win32	The built applications for getting familiar with the Sentinel RMS API functions.
\Licenses\Network	The network licenses for the applications contained in \Client\Win32.
\Licenses\Standalone	The stand-alone licenses for the applications contained in \Client\Win32.
\MsvcDev\Samples\API	This is same as \Samples\API.
\MsvcDev\Include	The header files for the applications contained in \Client\Win32.
\MsvcDev\Lib\Win32\DLL	The dynamic libraries for the applications contained in \Client\Win32.
\MsvcDev\Lib\Win32\Static	The static libraries for rebuilding the samples.
\MsvcDev\Lib\Win64\DLL	The dynamic libraries for the licensing API functions for 64-bit Windows.
\MsvcDev\Lib\Win64\Static	The static libraries for the licensing and license generator API functions for 64-bit Windows.
\Interface	The interfaces for license generation and network licensing
\COMObjects\LicGenCOM	The license generation API interface for the COM component. Also contains example programs in Visual C++ and Visual Basic.
\Java	The pure Java interface for network licensing.
\RMS-CodeCover	The files for the automatic CodeCover protection
\CodeCoverSDK	The component used with the RMS CodeCover for protecting sensitive data in your application code against memory dumps and reverse engineering attacks.
\Tools	The Sentinel RMS tools to generate license codes and customize your application with the developer-defined data
\distctrl	The distribution control program that allows you to create a Win-

Directory or File	Description
	dows license code generator for your product distributors.
\Delivery	The utilities and files for your customers
\Admin.net\Win32	The utilities for network licensing.
\Admin.Sta\Win32	The utilities for stand-alone licensing.
\Server\Setup	The installation program for the RMS License Manager and Sentinel System Driver.
\Your_App\Win32	The utilities for commuter licenses.
\Manuals	The documentation for the Sentinel RMS SDK
<i>Sentinel RMS SDK Documentation Access Page.html</i>	The page for accessing the Sentinel RMS SDK documentation, including the online guides.

Documentation Resources

This section provides details about the additional 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 and HTML versions 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, license code generator, system initialization, and so on. Useful for developers integrating the API functions in the code. To access, use the following ways:

- PDF and HTML versions 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>

Specific Documentation (Windows Applications)

- WlscGen Help - Contains details about using the Windows License Generator. Useful for developers generating licenses using WlscGen.

- CodeCover Help - Contains details about using the Windows CodeCover wrapper protection (for executables and DLLs). Useful for developers using CodeCover to license applications.

Technical Support

If you have questions or need additional assistance, please contact Technical Support using this information:

Customer Connection Center (C3)	
http://c3.safenet-inc.com	
Existing customers with a Customer Connection Center account can log in to manage incidents, get latest software upgrades and access the complete SafeNet Knowledge Base repository.	
Support and Downloads	
http://www.safenet-inc.com/Support	
Provides access to knowledge base and quick downloads for various products.	
E-mail-based Support	
support@safenet-inc.com	
Telephone-based Support	
United States	(800) 545-6608, (410) 931-7520
France	0825 341000
Germany	01803 7246269
United Kingdom	0870 7529200, +1 410 931-7520
Australia and New Zealand	+1 410 931-7520(Intl)
China	(86) 10 8851 9191
India	+1 410 931-7520 (Intl)

