

# Sentinel EMS

## RELEASE NOTES

**Release Version: 4.3**

**Issue Date: May 2018**

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# Product Overview

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Sentinel EMS is a Web-based solution that provides you with a centralized interface for all your license and entitlement management functions. It offers an easy-to-use interface for your back office systems and a variety of advanced data collection and reporting functions. It also provides a centralized license management interface for employees, customers, and partners.

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**Note:**

The scope of the Sentinel EMS 4.3 release does not include:



- SCL Add-On for Sentinel RMS.
  - Time Zone in Sentinel EMS v5 REST APIs
  - C# Wrapper for Sentinel EMS v5 REST APIs
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## New Features and Enhancements

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This section provides details about the new features and enhancements included in this release:

### REST API Feature Highlights

Sentinel EMS REST APIs v4.2 have now been migrated to the Sentinel EMS REST API v5 set. The following are the feature highlights of the Sentinel EMS REST APIs v5:

- The Sentinel EMS REST APIs have been developed using accepted standards of RESTful APIs. They include standardized conventions for the following:
  - Request and Response handling
  - Partial representation of data objects retrieved using search.
  - Pagination
  - Sorting
  - Error handling
- Improved documentation and interactive API reference, which makes it easier to find information and understand usage.
- XSDs are synchronized and automatically updated.
- For input and output data, JSON support is provided along with the XML format.
- Easy-to-use APIs and reduced overhead of unnecessary procedure calls makes consumption of APIs more intelligent and intuitive.
- The authentication method has been updated to Basic Authentication for Sentinel EMS REST API v5. Basic authentication is passed along with each request as part of the header for each API call. This helps improve performance by avoiding constant verification of the user's credentials.

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**Note:**

- For more information about the EMS REST API listed here, refer to the latest Sentinel EMS REST API Guide.
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- The Sentinel EMS REST APIs v4.2 are supported in the Sentinel EMS 4.3 release to maintain backward compatibility. The Sentinel EMS 4.2 Web Service guide is archived and available online.
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## Time Zone Activation

Time zone activation helps customize the usability period of the licenses and orders for a Customer. The order taker and the Customer may be located in different time zones. Specifying the Customer time zone ensures that the licenses and orders are valid based on the Customer's location. Sentinel EMS allows you to specify a time zone for a Customer using the **Time Zone** field during Customer creation.

Sentinel EMS also allows you to override the Customer time zone during activation. If the license being generated requires a different validity period than the one specified by the Customer time zone, change the time zone during activation. The time zone specified during activation overrides the Customer time zone, and the licenses are generated accordingly. This change is limited to the current activation and does not modify the time zone specified for the Customer.

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### Note:



- Time zone support is currently available in the Sentinel EMS portal and will be available in the Sentinel EMS REST APIs in the coming release.
  - The new Time Zone activation feature has replaced the **Allow Activation with +/-1 Day** property available in the Administration Console in Sentinel EMS 4.2
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## Reference ID Added to Notification Templates

Entitlement reference identifiers have been added as place holders to the e-mail notification templates for Entitlement and Activation. For more information, see the *Sentinel EMS Configuration Guide*.

## Infrastructure Software Updates

Sentinel EMS uses the following infrastructure software:

- Oracle Java Runtime Environment - JRE 8 update 144
- Apache Tomcat - v8.5.28

## Custom Attributes Updates

- You can create custom attributes for Downloads to store additional information for ESDaaS. The custom attributes defined for a Download become part of all of its instances.  
A custom attribute is made up of an **Attribute Name** and its **Data Type**. The data type that can be specified for a Download can be one of the following types: String, Date, Numeric, Boolean, List, and XML.
- **Attribute Value Unique** check box is available when creating custom attributes. You can ensure that the value specified for a custom attribute is unique and mandatory by using this parameter.

## Enhancements for Downloads

- The screen to view downloads has been enhanced to display consolidated information of a download definition. The Download screen has been updated to display the following:

- Information such as Product Version, Name, File, Size, Version, Release Date, More Details, and Share Link are displayed in a tabular format for the download definition of an entitlement.
- The signed link has been replaced by a "Copy Link" link that can be used to copy the download URL to the clipboard.
- For a parent product, the download details of all its child products are also displayed.
- When defining a download, you can associate customers with it. The download is only available for the customers assigned to it. If no customer is assigned to the definition, then the download is available for all customers.
- A file download link expires in 16 hours by default. The expiration time of the file download URL can be configured using the "URL Expiration Time" property available in the Administration Console. A numeric value must be specified for "URL Expiration Time", and the duration is specified by appending m (minute), h (hour), or d (day) to the value.

## ESDaaS Updates

For ESDaaS, the maximum file size limit for files to be uploaded is 20 GB. The EMS session should be active during the upload process to ensure that the file upload is successfully completed.

## Service Account

Service account can now be created using the Sentinel EMS ISV portal. A service account is created for a user who can access Sentinel EMS resources for third-party integrated systems. A service account cannot be authenticated through the Sentinel EMS ISV portal and can only be authenticated using the authentication REST API.

## Channel Partner Updates

- The Channel Partner capability to modify an entitlement is limited to the following:
  - A Channel Partner can only modify Customer, Contact and Channel Partner details of the entitlement to which it is associated. Other fields appear disabled.
  - A Channel Partner can add new Customers and Contacts for an entitlement if the **Allow Channel Partner to Create Customers** property is enabled in the Administration Console.
  - A Channel Partner can associate a Customer with an entitlement only if no Customer is currently associated with the entitlement. Once a Customer is associated, the Channel Partner cannot further modify it.
  - If a Customer is associated with an entitlement, the Channel Partner can modify its Contact. The updated Contact must also belong to the associated Customer.
  - A Channel Partner can associate other Channel Partners to an entitlement.
- Channel Partner capability during the Split/Transfer of an entitlement is limited to the following:
  - A Channel Partner can only Split/Transfer an entitlement to which it is associated.
  - A Channel Partner can add a new Customer and Contact for an entitlement during Split/Transfer if the **Allow customer creation for channel partner** property is enabled in the Administration Console.
  - A Channel Partner can associate other Channel Partners with an entitlement during Split/Transfer.

## Search Criteria Expansion for Product ESD Report

The new mandatory search parameter "Product Version" has been included to expand the search criteria for the Product ESD report. This report provides information such as the download count and download data size of the files associated with a given product.

# Advisory Notes

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When you upgrade to Sentinel EMS 4.3, the installer automatically merges new relevant messages with your *messages.properties* file.

## Merging the *messages.properties* Files Manually

With every release of Sentinel EMS some new messages have been introduced in the *messages.properties* file. These messages are used as labels or resource keys in the Sentinel EMS portal. You need to manually merge the *messages.properties* files if your Sentinel EMS installation supports multiple languages (for example, English and German).

To merge *messages.properties* files:

1. Open the file `%EMSSERVER_HOME%\webapps\ems\web-inf\classes\patch_messages.properties`. This file lists all messages added after EMS 2.0.0 in a sequential manner.
2. Confirm the last version of Sentinel EMS on your machine. Copy all messages added after that. For example, if your last version of EMS was 2.5 then you need to copy all messages starting from EMS 2.5 till the last line of the file.
3. Paste the messages copied in step 2 at the end of the file *messages.properties*. This file is available at `%EMSSERVER_HOME%\webapps\ems\web-inf\classes\`.
4. If you have previously applied a language pack then you need to paste the messages copied in step 2 at the end of the language-specific properties file. Then translate the copied messages to the desired language. The path for any such file is `%EMSSERVER_HOME%\webapps\ems\web-inf\classes\{locale}\messages_{locale}.properties`.

For example, if German language pack is previously applied, then you can locate the file at `%EMSSERVER_HOME%\webapps\ems\web-inf\classes\de\messages_de.properties`.

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- Message labels were introduced after Sentinel EMS 2.0 release and are maintained in the *patch\_messages.properties*.
  - If you have applied any language pack, you need to update the language pack files (for example, *messages\_de.properties* for German) manually for the new messages.
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## Resolved Issues

The following problems are corrected in the Sentinel EMS 4.3 release:

Ref. #	Description
SM-744	Expiry time of license allowed even though it is not supported.
SM-28366	Unexpected error description returned when activating a disabled product.
SM-29407	Multiple date issues in Batch Entitlement.
SM-30706	Error code 999 in reports web service.
SM-17370	EMS authentication failed when assertions are encrypted.
SM-15860	"Null" keyword should not be restricted in EMS.
SM-17234	Unable to edit Email address field in batch entitlements.
SM-16993	Transaction History in web service should not have "DRAFT" operation while retrieving Entitlement Details.
SM-10838	Product Import data does not work properly.
SM-9671	While creating an entitlement through web service, the <enforcementIdentifier> element is not required even if it is defined at the product level.
SM-8602	Revocation issue with multiple locking codes.
SM-8217	Issue with EMS 4.1 import CSV(Feature)
SM-21696	Error after login if Active Directory user has duplicate email.
SM-23703	Comma is allowed in customer name when creating customer from EMS user interface but not allowed when customer is created through data load.
SM-20115	Requested improvement to the EMS WS Documentation
SM-20057	Proxy settings lost while running EMS Setup in installer.
SM-20092	EMS on-premise installation contains EMS on Linux documentation.
SM-20068	Admin console > Entitlement certificate e-mail settings > NO value is missing from "E-Mail Required" drop down in Administration Console.
SM-22130	Error message during EMS Setup doesn't prevent "next" page to be loaded.
SM-21618	Installer Guide > Hardware Prerequisites: Details for CPU is not correct.
SM-21390	EMS documentation error
SM-18923	SSO integration does not work.
SM-12772	Customer ID not completely visible when it is too long.
SM-14241	Eliminate URL parameter siteLanguage in case of "en" / English

Ref. #	Description
SM-11586	EMS Tomcat version vulnerability.
SM-11361	Data import through CSV have issues with custom attributes.
SM-3666	Include Batch ID to batch entitlement notification email and excel list.
SM-16358	Channel partner user should not be able to modify entitlement.
SM-14626	Pre-populate start and end date in reports.
SM-14625	Allow technical user (service account) creation from the EMS user interface.
SM-13928	Re-factor download dialog box.
SM-15832	Allow file upload with the same file name.
SM-12630	Handle unicode product definitions correctly for ESD.
SM-21639	Optionally allow Channel Partners to create Customers.
SM-17594	Allow upload of files larger than 500 MB.
SM-14333	Show all child downloads for parent entitlements (LVH).
SM-19438	Custom attributes for downloads for all the portals.
SM-20143	Workflow-related fixes.
SM-20221	Refactor Share-Link functionality (Copy to Clipboard).
SM-20990	Entitlements disabled in EMS but not in SCC.
SM-13930	Allow URL expiration time to be configured.
SM-18004	Revocation should be allowed with any valid revocation ticket.
SM-22930	Custom attributes on the Download user interface are saved to the database, but do not appear on the Update page.
SM-22998	Activate a disabled entitlement through web services.
SM-22613	Transaction History is not visible at the line item level.
SM-21863	Partial and Full quantity changes user limit when the user limit configuration is enabled.
SM-21856	Product information is not highlighted when the Add Product button is selected.
SM-21784	The error message 'Provided date is not valid range Sat Jan 01 00:00:00 UTC 2501' is displayed during revocation.
SM-16389	Password is required when adding a Contact in the Entitlement/Add Contact screen.
SM-22303	Activation is allowed when Entitlement is disabled (for web services).
SM-23710	The 'Remember me' text does not render correctly in the login screen.

Ref. #	Description
SM-21177	An internal error message is displayed during Product Suite activation.
SM-20994	If a line item is disabled, it can also be revoked.
SM-21557	EMS 4.2 Transaction Records do not display all transactions.
SM-23397	Overlay date format is not consistent with the Download tab screen.
SM-19803	Resolve health check issues for EMS.
SM-23107	CCEMail is ignored from XML during import data.
SM-23844	Default value of the Entitlement custom attribute is not stored in the table t_tmpl_attr_value.
SM-23410	Exception generated when a lease license with the custom license generator.
SM-20377	Custom reports text area field is not resizeable.
SM-20017	Sorting is not working in entitlement screen grid.
SM-19959	While creating entitlement, 'Allow Revocation' flag is always true.
SM-19885	Feature License Model change when modifying an EMS Entitlement. Changing the License Model of new enabled Features is not possible.
SM-19884	Customer name is not displaying correctly if name has "&" symbol.
SM-19875	Email contains empty body when JSP override is used with Modify Entitlement WS.
SM-19837	t_revocation_sessions table is missing when user upgrading 4.0.161 (4_0_1083) from 4.2 GA build(4_2_1557)
SM-19826	View certificate Email is not populated automatically.
SM-19659	Allow upload of files bigger than 500 MB.
SM-19600	Invalid characters in 'private vendor info ' field should not be allowed while modifying an entitlement.
SM-19583	EMS returns error when prdExternalId tag is passed while creating/modifying entitlement through WS
SM-19516	Duplicate records can be created for customer entity when multiple threads hit the ems instance at the same time.
SM-19501	Customer name with special characters appear scrambled in the Entitlements list.
SM-19270	Merge EMS 4.0.162 patch with EMS 4.2.300
SM-19079	XML Response generated by /ems/showEntitlementActivations.xml is of different format.
SM-19069	EMS 4.2 - Import data stuck "In Process"
SM-19055	Cannot rely on feature or entitlement schemas to verify data.(Update Entitlement XSD)
SM-19003	Downloads truncates product names.
SM-17801	Activations reporting shows shortened EID/AID.



Ref. #	Description
SM-17648	No indication of disabled line item until clicked.
SM-17517	Incorrect error code returned when using loginbyEID web service.
SM-17509	EMS upload behavior is incorrect when updating a file or replacing it with a different file
SM-17410	Names of Enforcement Extension Attributes not displayed on New Product page.
SM-16613	The local online documentation of EMS 4.2 is partially missing due to incorrect documentation template.
SM-16149	Documentation bug : Behavior of "isTest" field.
SM-16073	Not able to add single product, multiple times in an entitlement using Import CSV.
SM-14337	Custom attributes for downloads.
SM-18125	Incorrect value of "isDisableDependent" in database table causing Sentinel EMS to crash.
SM-18071	License Model dates are incorrect when creating entitlement using web services.
SM-17747	EMS4.2 : Unable to get activation attributes for product suite using web service.
SM-17647	Specific user role not showing all features when added to a product when permissions set to view, edit and add.
SM-17409	Multiplier not visible at entitlement level once set in product.
SM-17104	Activation XSD is incorrect for Downloads.
SM-16760	Not able to view Deployment/License Type for Flexible license model.
SM-16591	"Allow Revocation" check box is still selected by default even if "Allow Revocation" is disabled in the EMS Admin Console
SM-16265	Feature Import is not working.
SM-16032	Importing Vendor Info it is not carried into the entitlement
SM-15790	Extend enforcement payload by 2 attributes.
SM-15692	Error when trying to add LM to a Feature.
SM-15485	Documentation update on reserved words.
SM-15260	License Model start and end dates are not imported.
SM-14970	SampleEIDGenerator.java throws an Internal Server error when an Entitlement is committed.
SM-14954	Channel Partner sort is not in alphabetical after editing.
SM-14690	Updating the user web service modifies the user's custom attribute.
SM-13473	Incorrect behavior during manual product modification.
SM-20068	Admin console > Entitlement certificate e-mail settings > No value is missing from the "E-Mail Required" drop down in Administration Console.

# Known Issues

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The known issues for the release are categorized and listed below:

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## Related to Sentinel EMS Installation/Upgrade/Uninstallation

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- In the case of a conflict after the Sentinel EMS upgrade, map the backup (of the Sentinel EMS earlier version) and current locations to resolve the conflict manually.  
Refer to the [Upgrading Sentinel EMS](#) section in the *Sentinel EMS Installation Guide* for details.
- On a machine with a localized operating system, installation of Sentinel EMS in a directory whose name contains localized characters, fails.  
The workaround for this is to install Sentinel EMS in a directory whose name does not contain localized characters.
- Localized characters and special characters are not accepted by the installer while accepting the Database information (while providing the User Name and Database Name) for SQL Server. Similarly, Password does not accept localized characters (though numbers and special characters such as !, @ and # are allowed).
- While installing Sentinel EMS, the installer might not be able to detect the RMS DLLs even if Sentinel RMS is already installed on the system. To overcome this scenario, upload the RMS DLLs using the Admin console. See [Configuring RMS License Generator Manually](#) for details.
- The environment variable EMSSERVER\_HOME, takes a few minutes to get activated after the following tasks:
  - Modification of the configuration settings
  - Sentinel EMS upgradeFor immediate results, restart the machine.
- Some files and folders present at `%EMS_HOME%\webapps\ems\WEB-INF`, may not be deleted after the Sentinel EMS is uninstalled. You need to delete these manually, if required.
- The `tools.jar` file should be available at `JRE\lib` to execute the Sentinel EMS Windows service pack installer to avoid warning. To overcome this issue, make sure that the `tools.jar` file is for the specific JRE version installed on your machine and is available in the `JRE\lib` folder.

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## Related to Sentinel EMS Shortcuts

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- When the Tomcat port is changed from HTTP (8080) to HTTPS (8443), it takes some time to update the Sentinel EMS shortcuts—the shortcuts used for launching the Sentinel EMS portal from the Start menu or through the web browser. To overcome this issue, restart the machine.

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## Related to Web Browsers

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- For Windows 8 and Windows Server 2012 (64-bit), the Internet Explorer runs in two modes—the Desktop mode and the Metro mode. A User needs to disable the protected mode of the Metro mode in order to run Sentinel EMS.
- The Sentinel EMS web page appears unresponsive when handling huge data sets. To overcome this, increase the script timeout of the web browser.

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## Related to Features/License Models/Entitlements/Downloads

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- Entitlement is disabled on commit, if the 'Allow Activation' check box is not selected.
- Licensing attributes of license models are not displayed during the process of adding a product to an entitlement.
- If a Child Product is directly added to an Entitlement, the Enforcement Extension attributes set during the product creation are not reflected in the Entitlement or Activation, instead it reflects the default values of the License Model.
- Features using the Flexible license model and features using other RMS license models cannot be added to the same Product.
- Attribute sequence displayed in the Entitlement details is different from the sequence that appears in the Create

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Entitlement window.

- For Cloud-served entitlements, the base entitlement cannot be deployed, if a split and/or a transfer transaction is performed over it.
- For the ISV portal, the Downloads tab page to view download details corresponding an entitlement does not render correctly if the number of downloads is more than 20 and the download definition contains custom attributes.

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### **Related to Reports**

- Multiple Channel Partner support causes a break in the Jasper reports.
  - Running reports without a filter for a large number of Entitlements (more than 40000), may cause the 'Java heap memory' error.
  - Pop-up windows in Sentinel EMS cannot be moved or dragged in Microsoft Internet Explorer 9. Consider using a later version of Internet Explorer.
  - It might take up to 24 hours for the ESD data to get reflected in the ESD reports.
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## Documentation Resources

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The documentation resources for Sentinel EMS are listed in the table below. These can be accessed from the page: <http://sentinelems.safenet-inc.com>.

Document	What's in it?
Release Notes (this document)	Provides information about the new features and known issues in this release.
Installation Guide	Provides detailed information about the system requirements, environment variables, and installation steps.
User Guide	Provides details about the features available in Sentinel EMS and the steps to perform various tasks using the portal.
Configuration Guide	Provides information about administering and customizing the Sentinel EMS. It also provides the database schema of Sentinel EMS.
REST API Guide	Provides details about the REST API components exposed to facilitate integration of Sentinel EMS with external CRM and ERP systems.
Getting Started Guide - Sentinel EMS REST APIs	Provides a scenario and workflow where the user will log in and create entities such as Features, Products, and Entitlements based on parameters defined in the scenario using Sentinel EMS REST APIs.

# Support Contacts

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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:

- Customer Support Portal (preferred):  
<https://supportportal.gemalto.com/csm?id=sentinel>
- Phone:
  - AMER: 800-545-6608 (US toll free), International: +1-410-931-7520
  - EMEA/APAC: <https://supportportal.gemalto.com/csm?id=sentinel>  
Click “Contact us”
- E-mail (only if you cannot submit the technical issue via the portal)
  - [technical.support@gemalto.com](mailto:technical.support@gemalto.com)

## Downloads

To download installers and other updated components:

<https://sentinelcustomer.gemalto.com/sentineldownloads/>