

# Sentinel<sup>®</sup>EMS

Sentinel EMS 3.0  
Release Notes



## Document Revision History

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# Sentinel EMS 3.0 - Release Notes

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## About This Document

This document contains information about the latest release of the Sentinel EMS, including new features, changes to the product, and known issues and workarounds.

## Product Overview

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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## What's New In This Release?

### EMS Licensing

Sentinel EMS 3.0 is available as a licensed software. The licensed features in Sentinel EMS can be consumed only with a valid EMS license. Sentinel EMS licensed features are categorized as Standard and Advanced. Standard (or default) features are supported by a single license whereas Advanced features require individual licenses.

Following are some of the Standard features served through a single license:

- Catalog- Features, Products, and Product Suite
- Entitlement Management
- Basic Reports
- Standard Web Services
- Admin Console

In addition, Advance licensed features included are:

- Notifications
- Custom Reporting
- ESD Portal
- Login to Channel Partner Portal

License is perpetual or subscription with EMS deployed on a machine using Cloud enforcement. Irrespective of the license type, EMS checks for the License when the user performs login, installation, or upgrade of the software or on start/restart of the EMS services. All features are enabled based on the license downloaded.

Sentinel EMS requires an active internet connection to verify license. However, if you do not have an active internet connection, you must connect to internet at least once a day.

### Multiple Channel Partner Support

Sentinel EMS supports the ability to associate multiple Channel Partners to a given Entitlement such that all associated partners have access to the Entitlements.

### Support for Cloud Enforcement

Sentinel EMS 3.0 supports cloud enforcements. This extends the capability of Sentinel EMS as EMS high-end on premise with Cloud enforcements. Cloud enforcement in Sentinel EMS offers a hybrid licensing solution that allows software providers to host an application both on-premise and on Cloud. It means that you can deliver your application as a service on the Cloud as well as you can install it within the premises of your enterprise customer.

### *Cloud License Models Support*

Sentinel EMS supports the following License Models to support Cloud enforcement:

- Subscription
- Postpaid
- Pre-paid
- Concurrent

### *Cloud Entitlements*

Cloud Entitlements that are generated include the Cloud License Models and attributes for the given Products. Deployment mode is specified while creating an Entitlement for Cloud enforcement. The deployment mode specifies the environment where a protected application is installed. A Cloud enforcement in Sentinel EMS can have one of the following deployment types:

- Cloud: In this case the protected application is externally hosted on a server residing in Cloud. The server where the application runs is under the control of software provider.
- On-premise: In this case, the protected application is installed within the premises of customer of software provider. The machines on which application runs are under the control of customer.

### *Modify/Reconfigure Cloud Entitlements*

Sentinel EMS provides the option to reconfigure deployed Cloud Entitlements (Entitlements that have been activated). Sentinel EMS also provides the option to modify committed Cloud Entitlements (Entitlements that are committed but not deployed).

### *Concurrent Session Management for Cloud*

Sentinel EMS allows you to manage concurrent sessions for those Entitlements where Products contain at least one Feature defined using the Concurrent License Model. Concurrent session management is only available for Cloud and On-premise Feature level connected mode. User with sufficient privileges can view the concurrent session details and also remove a session.

### *Cloud Entitlement Reports*

Sentinel EMS provides the following reports to support Cloud Entitlements:

- Usage Billing: Data which can be used for billing purpose for a Product in an Entitlement is displayed.
- Usage Details Report: Sentinel EMS allows you to track the usage history of a Customer for the purpose of data analysis and billing.
- Usage Count: Sentinel EMS allows you to view the usage count status for a Feature deployed with Pre-paid License Model.

## Enhancements in Web Services

### New REST Web Services for ESD

The following new REST Web Services have been added for ESD (Electronic Software Distribution):

Web Service	Method	Description
download.ws	PUT	Creates downloads.
Entitlement-item.ws	GET	Retrieves download information for a specified Entitlement
download.ws	GET	Retrieves download details in form of an XML string that consists information such as, Product details, associated Feature details and License Model details.
{downloadId}.ws	DELETE	Deletes download definition.
{downloadId}.ws	GET	Retrieves the download information in form of an XML string that consists of various information such as, Download details, linked Product details and details of associated downloads.
vendorList/listItem.ws	GET	Retrieves vendor list item information such as name and ID.
downloadList/listItem.ws	GET	Retrieves download information such as ID and name for a download list item.
licenseList/listItem.ws	GET	Retrieves information such as ID and name for a license list item.
productList/listItem.ws	GET	Retrieves download information such as ID and name for a download list item.
vendorList/listItem.ws	PUT	Adds Vendor details for downloads.
downloadList/listItem.ws	PUT	Adds new list type name in download list.
productList/listItem.ws	PUT	Adds list type name in Product list.
licenseList/listItem.ws	PUT	Adds list type name to the License list.

### New REST Web Services for Products

The following new REST Web Services have been added for Products:

Web Service	Method	Description
{productId}.ws	DELETE	Deletes Products.
searchProduct.ws	GET	Retrieves the list of products against the query parameters.

### New REST Web Services for Features

The following new REST Web Services have been added for Features:



Web Service	Method	Description
<b>feature.ws</b>	PUT	Creates feature using a Feature XML as input.
<b>{featureId}.ws</b>	GET	Retrieves Feature information in form of an XML string that consists Feature details.
<b>{featureId}.ws</b>	POST	Updates the Feature using Feature ID and Feature XML string as the input parameters.
<b>{featureId}.ws</b>	DELETE	Deletes a feature based on the given parameters.
<b>searchFeature.ws</b>	GET	Retrieve the list of features against the query parameters.

### *New REST Web Services for Entitlements (Cloud Enforcement Support)*

The following new REST Web Services have been added for Cloud Entitlements:

Web Service	Method	Description
<b>retrieveUsageLog.ws</b>	GET	Retrieves the usage log details for a given product of a deployed entitlement.
<b>billingData.ws</b>	GET	Retrieve the billing data as XML for a specific product included in an entitlement. The XML can be further used to generate bills in different formats.
<b>retrieveCurrentUsageCount.ws</b>	GET	View the usage count of a pre-paid Entitlement.
<b>concurrentSession.ws</b>	GET	View concurrent session information for concurrent license in use.
<b>removeCurrentSession.ws</b>	POST	Removes a session.
<b>viewLicenseState.ws</b>	GET	View license state.

### *New REST Web Services for Cloud On-Premise Machine Registration*

Machine registration is required to implement device-based licensing. It enables you to restrict the use of your protected application only on the machines that are registered with Cloud Connect. The information that can be used to identify a machine is called its fingerprint. The fingerprint of the client machine needs to be obtained and registered with Cloud Connect.

For machine registration, you need to use the following web services:

Web Service	Method	Description
<b>Feature level licensing</b>		
<b>customerfingerprint.ws</b>	PUT	Adds fingerprints of a customer's machine to the database.
<b>{customerRefId}/customerfingerprint.ws</b>	GET	Retrieves the list of fingerprints for a specified customer. This Web service is available only for on-premise Feature level licensing.

Web Service	Method	Description
<code>{customerRefId}/customerfingerprint.ws</code>	DELETE	Deletes fingerprints of a Customer's machine. This web service is available only for on-premise Feature level licensing.
<b>Entitlement level licensing</b>		
<code>FingerPrint.ws</code>	PUT	Adds machine fingerprints to the Cloud Connect database for a given Entitlement. A machine fingerprint can be registered with only one Entitlement. This Web service is available only for on-premise Entitlements created with detach mode.
<code>{eid}/FingerPrint.ws</code>	GET	Retrieves the list of fingerprints for a specified Entitlement. This Web service is available only for on-premise Entitlement level licensing.
<code>{fingerprintId}.ws</code>	DELETE	Deletes given machine fingerprint from the associated Entitlement.

### Updates to Web Services for Cloud Enforcement Support

The following changes have been applied to Web Services:

- **Support for Multiple Channel Partner in Entitlement Web Services**

The Web Services Create, Update, Modify, and Split Transfer for Entitlements, allow up to 5 Channel Partners to be associated with an Entitlement. The Web Services have been modified to support multiple Channel Partners but backward compatibility is supported.

- **Support for CC Emails in Entitlement Web Services**

A new <CCEmail> attribute is introduced. User can send carbon copies of e-mails (CC email) to maximum 15 email IDs. The new tag <ccEmail></ccEmail>, which will support the CC Email functionality for Create, Update, Modify, and Split Transfer Entitlement Web Services.

- **Support for Line Item State Change in Entitlement Web Services**

A new functionality introduced is Line Item State Changed. Users can enable or disable the Line Item after committing an Entitlement. A new tag <itemState></itemState> is introduced for the same in **entitlement.ws**.

- **Feature Identifier in Web Services**

A new field, feature identifier, is introduced for cloud based feature, which will be used for license consumption and identifier with EMS and SCC database. For Cloud based features, feature identifier is mandatory. For RMS based features, if feature identifier is missing in the Web Service request then an automatically incremented value is inserted.

- **Customer Identifier in Web Services**

A new field, customer identifier, is introduced. A new attribute, custIdentifier, has been added to the **Entitlement.xsd** and **Customers.xsd**. The <custIdentifier></custIdentifier>

tag has been added to the Web services, **getCustomerById.xml**, **getCustomerByCustomerName.xml**, **deleteCustomerById.xml**, **createCustomer.xml**, and **updateCustomer.xml**. The < custIdentifier> tag is also added to **getEntitlementCertificateHTML.xml** but only for Cloud Entitlements.

Customer Identifier is mandatory for Cloud Entitlements and optional for other Entitlements.

## Advisory Notes

When you upgrade to Sentinel EMS 3.0, 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\webinf\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`.



- 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.

## Problems Corrected

In this release, the following problems have been corrected:

Ref.	Problem Description
EMSENT-5072	Correct documentation for License Revocation input parameters.
EMSENT-4670	Change LineltemState value using Web services.
EMSENT-4668	Unable to activate Entitlements created or committed using REST Web services.
EMSENT-3999	Editing the same Customer Name in a different case is not possible.
EMSENT-5183	Issues in importing data using EMS GUI Import Data option.
EMSENT-5182	Enhancement Request : To allow an ISV to search for an activation based on the AID.
EMSENT-4811	Documentation details requested for 'ISSHARED' attribute in T_ENF_LM_GROUP_ATTR_MASTER.
EMSENT-5233	The commitEntitlement.xml returns a 'NullPointerException'.
EMSENT-5161	Feature name is always imported in lowercase using the Import function.

## Documentation Resources

Refer to the following resources for Sentinel EMS documentation.

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's 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.
Web Services Guide	Provides details about the Web service components exposed to facilitate integration of Sentinel EMS with external CRM and ERP systems.
Acknowledgments	Contains acknowledgments for the third-party software used.

## Known Issues/Limitations

Given below are the known issues in this release:

- Multiple Channel Partner support causes a break in Jasper reports.
- After changing the Tomcat port from HTTP (8080) to HTTPS (8443), it takes some time to update the shortcuts to launch Sentinel EMS portal from the Start menu. For immediate results, you can restart the machine.
- Some files and folders present at `%EMS_HOME%\webapps\ems\WEB-INF`, may not be deleted after you uninstall Sentinel EMS. You need to delete these manually if required.
- In case of a conflict after upgrade, you need to map the backup (of Sentinel EMS prior version) and current locations to resolve the conflict manually. Refer to the Upgrade section in the *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.
- Pop-up windows in Sentinel EMS cannot be moved or dragged in Microsoft Internet Explorer 9.
- Localized characters and special characters are not accepted by the installer while accepting Database information for Oracle and SQL Server.
- Changing the password for an Active Directory user, enables the user to log in using both the new as well as the old password.
- Running reports without a filter for a large number of Entitlements (more than 40000), may cause 'Java heap memory' error.
- For Windows 8 and Windows Server 2012 (64 bit), the Internet Explorer runs in two modes, the Desktop mode and the Metro mode. User needs to disable the protected mode of Metro mode of Internet Explorer to run Sentinel EMS.
- In case of upgrade, shortcuts may not work if upgrade is from 2.0.X/2.5 to 2.9. Therefore, it is recommended that you restart the machine.
- For Active Directory, the users should be present anywhere inside the parent organizational Unit (including all child organizational units under the parent).
- The environment variable `EMSSERVER_HOME`, takes a few minutes to get activated for:
  - Modification of the configuration settings.
  - Modification post upgrade.

Therefore, it is recommended that for immediate results, you restart the machine.

- In case Cloud is selected as the default enforcement through Admin console then Test Entitlements for RMS and third party products cannot be created.

