

# Sentinel Cloud EMS Web Services Cheatsheet (v3.4)

Sentinel Cloud EMS uses RESTlike Web services to facilitate integration of EMS data and transactions with external IT systems. Each Web service call is a standard HTTPS request and response is in XML format.

<https://localhost:8443/ems/3.4/verifyLogin.xml>

Address of EMS Server    Port    EMS Context    Web Services Version    Name of Web Service

## Call Syntax Example

### Version Information

GET	getWebServiceVersion.xml	Obtain Web Service Version
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### Authorization

POST	verifyLogin.xml	Vendor Login
POST	loginByEID.xml	Customer Login By EID
POST	loginByContact.xml	Customer Contact Login by User ID and Password
POST	closeSession.xml	Close Session

### Customer and Contacts

POST	createCustomer.xml	Create Customer
POST	createContact.xml	Create Contact
GET	searchCustomers.xml	Search Customers
GET	getCustomerById.xml	Retrieve Customer Details by ID
GET	getCustomerByCustomerName.xml	Retrieve Customer Details by Name
GET	getCustomerByCustomerRefId.xml	Retrieve Customer by Customer Ref ID
GET	isDuplicateCustomerName.xml	Check Duplicate Customer Names
GET	getCustomerRefIdByCustomerName.xml	Retrieve Customer Reference ID by Customer Name
POST	deleteCustomerById.xml	Delete Customer
GET	timeZoneList.xml	Retrieve Time Zone List

### Catalog

POST	addNamespace.xml	Add Namespace
GET	namespaceList.xml	Retrieve Namespace By Name and Ref IDs
POST	addFeature.xml	Create Feature
POST	updateFeature.xml	Edit Feature Details
POST	updateFeatureLMAssociation.xml	Associate License Model with a Feature
GET	viewFeatureById.xml	Retrieving Feature Details for a Given Feature ID
GET	featureList.xml	Retrieve Feature By Criteria
POST	deleteFeature.xml	Delete Feature
POST	createProduct.xml	Create Product
POST	associateFeaturesWithProduct.xml	Associate Features with Product
POST	disAssociateFeaturesFromProduct.xml	Remove Features from Product
POST	changeProductLifeCycleStage.xml	Change Lifecycle Stage of a Product
GET	getProductById.xml	Retrieve Product Details by productId
GET	searchProducts.xml	Search Products
GET	getProductByNameAndVer.xml	Retrieve Product Details By Name and Version
GET	licenseModelList.xml	Retrieve List of License Models
GET	getLicenseModelById.xml	Retrieve a License Model By ID
POST	copyLicenseModel.xml	Create Copy of License Model
GET	serviceAgreementList.xml	Retrieve List of Service Agreements

## Entitlements

POST createEntitlement.xml	Create Entitlement Using Parameters	POST updateServiceAgreementAttributes.xml	Update Service Agreement Attributes for a Line Item
GET getEntitlementDetailsById.xml	Retrieve Details of an Entitlement	POST addEnterpriseUserIds.xml	Add Enterprise User IDs
POST addEntitlementItem.xml	Add Product(s) to an Entitlement	POST removeEnterpriseUserIds.xml	Remove Enterprise User IDs
POST updateEntitlement.xml	Update Entitlement Details	GET retrieveEnterpriseIdentities.xml	Retrieve Enterprise User IDs
POST commitEntitlement.xml	Commit Entitlement	GET retrieveLicenseState.xml	Retrieve License State
GET searchEntitlements.xml	Search Entitlements	GET retrieveContractStatus.xml	Retrieve Contract Status
GET getEntitlementCertificateHTML.xml	Retrieve Entitlement Certificate as HTML	POST changeContractStatus.xml	Change Contract Status
POST updateEntitlementAttributeForAllFeatures.xml	Update Entitlement Attribute for All Features	GET retrieveContractLineItemStatus.xml	Retrieve Contract Line Item Status
GET getEntitlementItemById.xml	Retrieve Entitlement Line Item Details	POST changeContractLineItemStatus.xml	Change Contract Line Item Status
POST updateEntitlementItem.xml	Update Entitlement Line Items	POST initiateReconfigure.xml	Initiate Entitlement Reconfiguration
POST removeEntitlementItem.xml	Remove Entitlement Line Item	GET retrieveFeatureLineItemAssociation.xml	Retrieve Entitlement Line Item Feature Association
GET getEntitlementItemByCriteria.xml	Retrieve Line Item Details By Criteria	POST updateFeatureLineItemAssociation	Update Line Item Feature Association
GET getEntFeatureLMAttributes.xml	Retrieve License Model Attributes for a Feature	GET retrieveLineItemFeatureLMAssociation	Retrieve Entitlement Line Item Feature License Model Association
POST setEntFeatureLMAttributes.xml	Update License Model Attributes for a Line Item	POST updateLineItemFeatureLMAssociation	Update Line Item Feature License Model Association
GET getServiceAgreementAttributes.xml	Retrieve Service Agreement Attributes for a Line Item		

Custom Attributes		
POST	createTemplateAttribute.xml	Create Template Attribute
GET	getEntityCustomAttributes.xml	Find a Custom Attribute by Template Type and Entity ID
GET	searchEntityByCustomAttribute.xml	Search Entity By Custom Attribute
POST	updateCustomAttribute.xml	Update Custom Attribute
POST	removeTemplateAttribute.xml	Delete Custom Attribute

Machine Registration		
POST	addFingerprint.xml	Add Fingerprint
GET	retrieveFingerprint.xml	Retrieve Fingerprint
POST	deleteFingerprint.xml	Delete Fingerprint
POST	addEntitlementFingerprint.xml	Add Entitlement Fingerprint
GET	retrieveEntitlementFingerprint.xml	Retrieve Entitlement Fingerprint
POST	deleteEntitlementFingerprint.xml	Delete Entitlement Fingerprint

Usage Information		
GET	retrieveUsageLog.xml	Retrieve Usage Log
GET	getCustomerUsageLog.xml	Retrieve Customer Usage Log
GET	getCustomerUsageLogBasedOnVendorInfo.xml	Retrieve Customer Usage Log for Vendor Information
GET	retrieveUsageBilling.xml	Retrieve Usage Bill
GET	retrieveCurrentSessions.xml	View Concurrent Sessions
GET	retrieveCurrentUsageCount.xml	Retrieve Current Usage Count
GET	retrievePeakCapacity.xml	Retrieve Peak Capacity

# Function-wise Categorization

## Catalog Functions

Here is a list of Web services you need to call to perform a catalog operation, such as add, modify, retrieve, and delete. Follow the calling order, wherever specified.

Add Product (in the order given)	Modify Product (in Draft Stage)	Retrieve Product	Delete Product
<ol style="list-style-type: none"><li>1. addNamespace</li><li>2. licenseModelList</li><li>3. addFeature</li><li>4. getLicenseModelById and copyLicenseModel (optional)</li><li>5. serviceAgreementList</li><li>6. createProduct</li><li>7. changeProductLifeCycleStage</li></ol>	<ul style="list-style-type: none"><li>▪ updateFeature</li><li>▪ updateFeatureLMAssociation</li><li>▪ disAssociateFeaturesFromProduct</li><li>▪ associateFeaturesWithProduct</li></ul>	<ul style="list-style-type: none"><li>▪ getProductById</li><li>▪ searchProducts</li><li>▪ getProductByNameAndVer</li><li>▪ viewFeatureById</li><li>▪ featureList</li></ul>	<ul style="list-style-type: none"><li>▪ deleteFeature</li></ul>

## Entitlement Functions

Following are the Web services that help create, modify, retrieve, and reconfigure an entitlement. Follow the calling order, wherever specified.

Create Entitlement (in the order given)	Modify Entitlement (in Draft Stage)	Retrieve Entitlement	Reconfigure Entitlement
<ol style="list-style-type: none"><li>1. createEntitlement</li><li>2. addEntitlementItem</li><li>3. commitEntitlement</li><li>4. addEnterpriseUserIds (for Enterprise Named entitlements)</li></ol>	<ul style="list-style-type: none"><li>▪ updateEntitlement</li><li>▪ updateEntitlementItem</li><li>▪ updateFeatureLineItemAssociation</li><li>▪ updateLineItemFeatureLMAssociation</li><li>▪ updateEntitlementAttributeForAllFeatures</li><li>▪ setEntFeatureLMAttributes</li><li>▪ updateServiceAgreementAttributes</li></ul> <p><b>Modify Entitlement (in Complete Stage)</b></p> <ul style="list-style-type: none"><li>▪ changeContractLineItemStatus</li><li>▪ changeContractStatus</li></ul>	<ul style="list-style-type: none"><li>▪ retrieveLicenseState</li><li>▪ getEntitlementItemById</li><li>▪ getEntitlementItemByCriteria</li><li>▪ getEntFeatureLMAttributes</li><li>▪ getServiceAgreementAttributes</li><li>▪ retrieveCurrentSessions</li><li>▪ retrieveCurrentUsageCount</li><li>▪ retrieveUsageLog</li><li>▪ retrieveUsageBilling</li></ul>	<ol style="list-style-type: none"><li>1. initiateReconfigure</li><li>2. updateEntitlementItem*</li><li>3. getEntFeatureLMAttributes</li><li>4. setEntFeatureLMAttributes</li><li>5. addEntitlementItem</li><li>6. updateFeatureLineItemAssociation</li><li>7. updateLineItemFeatureLMAssociation</li><li>8. removeEntitlementItem (line item created in above step)</li><li>9. commitEntitlement</li></ol>

\* For Enterprise Unnamed Entitlements,

- updateEntitlementAttributeForAllFeatures
- setEntFeatureLMAttributes
- updateServiceAgreementAttributes

*the numberOfUsers field can be updated.*

## Custom Attribute Functions

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Following are the Web services that help create, modify, retrieve, and delete a custom attribute.

Create Custom Attribute	Modify Custom Attribute	Retrieve Custom Attribute	Delete Custom Attribute
createTemplateAttribute	updateCustomAttribute	searchEntityByCustomAttribute getEntityCustomAttributes	removeTemplateAttribute

## Machine Registration Functions

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Following are the Web services that help add, retrieve, and delete a machine fingerprint.

Add Fingerprint	Retrieve Fingerprint	Delete Fingerprint
addFingerprint addEntitlementFingerprint	retrieveFingerprint retrieveEntitlementFingerprint	deleteFingerprint deleteEntitlementFingerprint

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