



Release Notes for the Cisco Enterprise Mobility Services Platform Release 3.1

Release Month: December, 2016

Contents

This document describes the system requirements, new features, enhancements, and known issues for the Cisco Enterprise Mobility Services Platform. Use this document in conjunction with the documents listed in the “[Support](#)” section on page 15.

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Introduction to the Enterprise Mobility Services Platform

Cisco Enterprise Mobility Services Platform is a mobile-application platform that enables you quickly create and deploy context-aware experiences that engage people on their mobile devices. The cloud-based Enterprise Mobility Services Platform more securely integrates with your existing Cisco mobile network infrastructure. It uses context-aware data, like location and user profile information, to deliver personalized experiences that engage people on their mobile devices.

With this software platform, you can create captive portals or splash pages for guest Internet access and authentication. You can also develop native and web-based mobile apps, or add context-awareness to your existing mobile apps. Organizations can push personalized content to visitors and customers on their mobile devices to create new opportunities for engagement and revenue.

Enterprise Mobility Services Platform helps you:



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- Quickly build context-aware mobile experiences using drag-and-drop design tools.
- Simplify Internet access and authentication with custom or social Wi-Fi access.
- Send personalized notifications to visitors based on their real-time location.
- Easily integrate mobile experiences with your existing native apps using SDKs.

The platform includes adapters to interface with Cisco Meraki Cloud controllers, the Cisco Connected Mobile Experience, and Cisco wireless LAN controllers. In this way, it more securely integrates with your existing mobile network infrastructure.

System Requirements

This section lists the hardware requirements, operating systems, software requirements, and browsers for the Enterprise Mobility Services Platform.

Table 1 *System Requirements for the Enterprise Mobility Services Platform (WiFi Engage, Studio, SDK, and API)*

Item	Supported Requirements
Hardware	<ul style="list-style-type: none"> • 1 GHz processor • 1 GB RAM • 16 GB hard disk
API Network (For WiFi Engage)	<ul style="list-style-type: none"> • MSE 7.1 or later
Operating System	<ul style="list-style-type: none"> • Microsoft® Windows® XP or later • Mac OS X 10.6 or later
Browser	<p>Windows OS</p> <ul style="list-style-type: none"> • Internet Explorer version 9 or later • Firefox version 30 or later • Chrome version 34 or later • Safari version 5.1.7 or later <p>Mac OS</p> <ul style="list-style-type: none"> • Firefox version 30 or later • Chrome version 34 or later • Safari version 5.1.7 or later
Runtime Environment	Adobe Air version 3.0 or later
Java	Version 6.0
Mobile SDK	iPhone OS 6.0 or later, Android 2.3 or later

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New Features

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EMSP Architecture and Back End

The following new features are introduced for EMSP Architecture and Back End:

Rule Engine

Rule engine is re-architected to replace the experience zone based behavior of the platform. The platform is also enriched with advanced capabilities like customer targeting, customer behavioral targeting, scheduling, and so on. Moreover, Rule Engine helps to define different types of captive experience based on the user segment or user behavior.

The Rule Engine implementation provides the basis for the feature of serving captive portals based on rules.

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To support backward compatibility, rule engine falls back to experience zone definition if it is unable to find a matching rule. Rule Engine provides the runtime with complete information required to process the request such as time zone and location metadata along with captive experience, for seamless rendering of captive portal.

Spark Engine

Spark Engine has been re-architected and redesigned to support the evolved version of proximity rules that are based on Sense, Identify, Schedule, and Act concept. This new concept simplifies the overall complexity in configuring advanced engagement rules, offers flexibility in scheduling rules and making API calls as an action.

The engine is built for scale (built on Spark Framework and moved away from Google BigQuery to Amazon RedShift).

The new spark engine architecture allows the engine to run on lower end servers and scale according to the need.

The engagement rule sections has been enhanced to support multiple customer-specific SMS gateways.

Support for the Waterfall SMS Gateway

The Proximity Engine now supports the SMS gateway “Waterfall” to send sms notifications based on the engagement rules.

Support for Spark 2.0

The Proximity Engine is enhanced to integrate with Spark 2.0.

Support for the Ullevaal SMS Gateway

The Proximity engine now supports the SMS gateway “Ullevaal” to send sms notifications based on the engagement rules.

Streaming Data Export API

For Reports, the Data export API can be customized to provide data other than the standard set of data. Exports are provided as flat files that are uploaded directly to the customer data center over SFTP.

Export data format has a header section and supports the comma delimiter. Mac address can be exported in the decrypted format, and the location ID and path can be retrieved from the database.

WiFi Engage Dashboard

The following new features are introduced in the WiFi Engage dashboard:

Meraki AP Synchronization based on Network ID

Now the synchronization of Access Points in the Location Hierarchy is done based on the network ID for Meraki. So, even if the network name is changed in Meraki, synchronization with Meraki happens properly.

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Reports

The Reports section is completely revamped to provide to display in a new outlook with more useful information. A fully functional reports section is launched. The report section now provides information on Customer Acquisition, User Activity, and Customer Engagement.

- **Customer Acquisition** - Displays the customer details acquired for the specified locations and period.
- **User Activity** - Displays the time the customers spent in the locations, and the number of times each customer visits the location, during the specified period.
- **Engagement report** - Displays the engagements taken place in the captive portals and the various engagements taken place by the rules.

SMS Gateway for SMS Notifications

The Engagement Rule option now enables you to configure the SMS gateway through which you want to send notifications. This feature helps you to configure different SMS gateways for various engagement rules.

You cannot add the SMS gateways through the dashboard. Only the hard coded SMS gateways are available for selection.

SMS Gateway selection is mandatory for configuring SMS notifications.

Add Variable Drop-down list to Add Variables in Smart Links

A drop-down list, “Add Variable”, is added for the URL fields and notification message boxes that use smart links. The Add Variable drop-down list lists all the variables such as First Name, Last Name, Mobile Number, Gender, Mac Address, and so on that you can add to the smart links.

The Add Variable drop-down list is added to the following features:

- In the Welcome Module, for the Repeat User custom welcome message field. The Add Variable drop-down list will be available only if the authentication type is Hard SMS with Verification Code, Social Sign In, or Email.
- In the Custom Menu module, in the “Link to URL” field.
- In the Engagement rule, in the Link URLs and notification messages for various notification types such as App Push Notification, BLE Notification, SMS Notification, and Email Notification. For Trigger API Notification, the Add Variable drop-down list is available for the URI field and the Variable fields for various API triggering methods.

Provision to Cease Network Synchronization

You can now cease the synchronization between the wireless provider network and dashboard, if required. However, you may have to make the request to use this functionality, whenever required. You can use this functionality if you want to avoid the changes made in your wireless network to be reflected in the dashboard.

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Different Welcome Message for Repeat User

The Welcome module is enabled to display different messages for first time user and repeat users of the portal. A new check box “Add a custom message for Repeat Users” and a text box to enter the welcome message are added to the Welcome module to support this feature.

Smart Links for Welcome Messages

The Welcome Message module now supports adding smart links in the welcome message. The smart links allow you to include the personal details such as first name, last name, mobile number, and so on of the customer in the welcome message for a repeat user, provided the customer data is captured using the Data Capture module. For first time user, you can add only the location variable.

Search Feature for Locations

A new field, Search, is added to the Locations window to search for locations and access points in the location hierarchy.

- You can search a location by its Name.
- You can search an access point by its Name and Mac Address.

Support to Set Default Country in Data Capture Module

The Data Capture module in the portals is enabled to configure a default country for mobile numbers. In the Data Capture Module, a new drop-down list “Default Country” is added for the Field Element “Mobile Number”. During customer acquisition, when the customer accesses the Data Capture form, the country code for the default country will appear in the mobile field.

SDK

A new tab, SDK, is added to the Tools section in the WiFi Engage dashboard. SDK is available for iOS and android platforms. You can download the SDK from this section. In addition, you can also download the Help documents for both iOS and android versions, which explain how to integrate the SDK with your app.

Search Feature for Experience Zone and Proximity Rules

A new field, Search, is added for the experience zone option, and the proximity rules such as engagement rules, captive portal rules, and profile rules. You can search for the Proximity rules based on Rule name, Location name, or Status of the rule.

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EMSP Runtime

The following new features are introduced in the EMSP Run time:

Email Verification support

This feature verifies the email address entered by the customer to avoid authentication for fake / invalid e-mail IDs. Runtime will send SMTP messages to the email addresses and verify the responses to confirm the email entered is a valid one.

The e-mail verification is done for the following:

- E-mail address entering for email authentication to access the internet.
- E-mail address entered in the Data Capture form.

Support for the Ullevaal SMS Gateway

The EMSP runtime now supports the SMS gateway “Ullevaal” to send sms notifications based on the engagement rules.

Skip Option in the Data Capture Form

A new option, Skip, is available in the Data Capture form. User can skip to enter the details in the form if all the fields in Data Capture form are optional.

Short URI for QR Code

The support for Short URI is added in runtime. Short URI can be created for the combination of Location name, SSID Name/ID, Customer ID. The same short URI can be used for creation of runtime URL which would not require any authentication.

Enhancements

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EMSP Architecture and Back End

The following enhancements are made to the EMSP Architecture and Back End:

Notification Frequency in the Engagement Rule

The proximity engine is enhanced to send notifications exactly based on the notification frequency mentioned in the engagement rule. Previously, there was discrepancy between the configured notification frequency and the triggered one.

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Redis Cache Implementation

To improve the response time of the Manage Locations option, a Redis based cache layer is introduced in the location hierarchy section.

WiFi Engage Dashboard

The following enhancements are made to the WiFi Engage Dashboard:

Display AP Names and Mac Address in the Add Zone Window

When adding a zone, now the access point names will also be displayed along with the Mac address of the access points. This eases the identification of required APs. Previously, only Mac address was displayed.

Location-Specific Access Code Manager

Access Code Manager users are now created as location-specific. Previously, the access code manager users were created for experience zones. The Invite User screen is modified to display locations instead of experience zones for the user type “Access Code Manager”.

ASCII Characters for Names

The name fields in portals, proximity rules, and so on now allows you add particular ASCII characters. You can add ASCII characters for location names, portal names, rule name, and SSID name.

Location Hierarchy Optimization

Dashboard is enhanced to optimize the location loading and accessing process. This reduces the time required to load and access the location in the location hierarchy, especially when you are having many locations.

Previously, more time was taking to load locations and to perform location related operations, if the customer is having locations in large number.

Access Code Management Optimization

For Access Codes, the way the access codes are fetched from the database and displayed in the dashboard is enhanced to increase the speed for loading and modifying the access codes.

Experience Zone Optimization

Client side optimization is done to increase the speed in accessing the Experience Zone.

Displaying Locations in the Alphabetical Order for Access Code

Locations are sorted and displayed in alphabetical order to the Access Code Manager. This eases to locate the required location.

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Disabled Default Show Interstitial Option for New Portals

The “Show Interstitial” check box in the Get Internet module will not appear as selected by default. User has to explicitly select this option, if required. Previously, the “Show Interstitial” check box used to appear as selected by default.

Display Associated Access Codes When Deleting Locations

To ensure that access codes associated to a location are not deleted accidentally, the Delete Confirmation window now displays all the access codes associated with that location.

Changed OTP to Verification Code in Portal

In the portal, for the Hard SMS with OTP authentication module, the label “OTP” is changed to “Verification Code”. In the language support template, the label “OTP” is changed to “Verification Code” for the “ALERT_OTP_EXPIRED” key.

Deprecated the Advertisement Module

As the usage rate is low, the Advertisement module that was available for portals is deprecated.

Renamed the Tool Tips for Upload Image Buttons

In the portal, the tool tip for the Upload Image button that appears in most of the modules are re-labeled based on the type of image to upload.

Title field in the Data Capture Module

A new field, Title, is now available in the Data Capture module. If you configure this field in the Data Capture Module, in run time, the titles, Mr and Ms, will be available for selection for customers in the Data Capture form.

Network Synchronization Status in the Dashboard

The WiFi Engage is enhanced to display the synchronization status with the network servers. When you log in to WiFi Engage, the status of synchronization is displayed in the Manage Locations page. When synchronizing, the synchronization icon will be in the rotating mode. Once the synchronization is completed successfully, a tick mark is displayed. If any error occurs during the synchronization, an error icon appears. You can view the errors by clicking this error icon.

Meraki Network Synchronization Based on Organization ID

The Meraki network synchronization is enhanced to update based on the organization ID so that the synchronization happens even if the organization name is changed in the Meraki dashboard.

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Increased Character Limit for Custom Access Code

The maximum character limit for custom access code is increased to 100 characters. When creating custom access codes for Fixed/Monthly/Weekly access codes, the maximum characters that you can enter is increased to 100 characters.

Changed the Default Time for Engagement Rule

When creating an Engagement rule, in the “Set a time range for the rule” section, the default start date will be set to 9 AM and end date will be set to 6 PM. Earlier, the current time used to appear as default start time and end time.

Warning Message for Incorrect Image Size

When uploading an image in the Promotions and Offers module for a portal, warning messages are shown if the image size is different from the size of the image uploaded initially. The size of the image added first to module will be set as the required image size.

Cisco CMX Cloud Support

The WiFi Engage is enhanced to support Cisco CMX Cloud.

UTF-8 Character Support

For Meraki, now UTF-8 characters are supported for names. You can use the UTF-8 characters, when renaming the locations, adding groups/zones, creating SSIDs, creating portals, and creating proximity rules.

Publish Button in the Portals Page

If you are editing a published portal, and saving the changes without publishing, a Publish button appears for that portal in the portals page. You can publish the changes made to the portal any time using this Publish button.

Disabled the Save and Resume Button for New Proximity Rules

When you create a proximity rule such as captive portal rule or engagement rule, only the Save button will be available for selection. After saving the rule, the Save and Resume button will be enabled using which you can publish the rule. This enhancement helps you avoid publishing the incorrect or unwanted proximity rules accidentally.

Replace Option in the CSS Editor

A Replace File option will be available for each item added to the Upload Assets tab of the css editor. You can replace the items with new ones, but the file name remains the same. So, you don't have to make changes in the css editor to incorporate the replaced file.

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Retry Icon for Reports

When you access the Reports section in the Dashboard, the Reports get loaded. If any particular section of the Report is not loaded due to any failure, a Retry button appears for that section, using which you can retry to load the report for that section alone rather than reloading the page.

New Users/Repeat Users in the Reports

In the Engagement Reports section of the Reports, a New Users/ Repeat Users graph is added.

New EMSP Home page

The EMSP home page is redesigned for new look and feel.

EMSP Run Time

The following enhancements are made to the EMSP Run time:

Error Page Redesign

The error pages that appear during the customer acquisition is redesigned to display in a different look and feel.

Support for the Waterfall SMS Gateway

The EMSP now supports the SMS gateway “Waterfall” to send sms notifications based on the engagement rules.

SMPP Optimization

Optimized the SMPP message sending functionality. This will reduce the number of bind calls made to the SMPP gateway and keep the connections alive.

ASCII Support Validation for Data Capture Form

In the Data Capture form, the entry of special characters in the First Name and Last Name fields are restricted as the names usually don't need these characters. However the customer can enter space, hyphen, and dot.

Modified the Gender Options in the Data Capture Form

In the Data Capture form, the “Others” option that was available for selection in the Gender field is changed to “Prefer not to say”. The options now available for selection for gender are “Male”, “Female”, and “Prefer not to say”.

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Renamed the Labels for Hard SMS with OTP Verification

The labels and messages for Hard SMS authentication are modified as follows:

- For the OTP screen that appears for “Hard SMS with OTP Verification”, the label “OTP” is changed to “Verification Code”.
- The Validation message that appears when the customer enters an invalid OTP got changed to “Please enter a valid Verification Code received in your inbox”.
- The Validation message that appears when the customer enters an expired OTP got changed to “The Verification Code you entered got expired. Please try connecting again”.

Captive Portal UI Enhancements

The following enhancements are done to the captive portal UI:

- The font for Captive Portal is changed to “Raleway”.
- In the Data Capture form, the drop-down list for the Gender field is replaced with the radio buttons.
- Changed the text border.

Gender Tags Based on Data Capture Form Entry

The Gender tags are created based on the Data Capture Form entry as follows:

- When a customer selects a gender in the data capture form and submits the form, a gender tag is created in the user subscriber.
- In the Data Capture form if the Gender field is not available but Title field is available, then the Gender tag is derived from the title specified in the Data Capture form and added as tag in the user subscriber.

Smart Recognition of Mobile Numbers

When entering the mobile number, if the customer enters “0” immediately after the country code, that “0” is trimmed before sending the message to the mobile number. For example, if the user specifies the mobile number as “+9109696867676”, where “91” is the country code, the number will be edited to “+919696867676” before sending the message.

This feature is enabled for “Hard SMS with Verification Code” and ‘Soft SMS’ authentication, and the Mobile number field in the Data capture form for E-mail Authentication.

Post Data to Third Party API's & Modify User Tags

In the runtime, during portal authentication, the data collected from end user can be posted to third party API's. The API endpoint and request payload definition can be done at rule creation and the same information will be passed on to runtime during captive portal load. Runtime will post the user information to API server, which in turn will interpolate the variables in request payload and make a call to the configured endpoint.

Runtime also supports addition and removal of user tags based on captive portal rules. The rule can be configured to add / remove specific tags when the user lands on the captive portal.

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Meraki Session Expiry

In the Meraki, the session expiry duration defined for the customer will be used to set the session expiry time for the client (device).

Known Issues

Table 2 *Known Issues in the Enterprise Mobility Services Platform*

Description
For all type of proximity rules, you can create a rule with an existing rule name, if provided in different case. For example, if you have created a captive portal rule with the name “myrule”, you can create another rule with the name “MYRULE”.
For Access Code, when uploading an access code template with less than two values, the message “Empty csv content’ is displayed.
In the Edit Access Code window, when the validity period defined is removed by unselecting “Define a validity period for this access code”, the start date and end date defined for the validity period are not removed from the database.
If you access the Manage Locations option after navigating to any other option in the dashboard, the network sync icon is displayed in the synchronizing mode.
If disconnects and then reconnects to the Meraki network, the network sync icon is displayed in the synchronizing mode.
In the WiFi Engage Login page, the Request a Demo option at the end of the page is having the following issues: <ul style="list-style-type: none"> • After entering the required details, when you click the Submit button, the request is not sent to the respective team. • The e-mail ID and Company name are not validated.
If Redis Server Connection timeout happens, the location hierarchy is not getting loaded.
For Meraki, when you click “Yes” in the Network Configuration dialog box that appears in the WiFi Engage dashboard, the network configurations are not updated in the Meraki.
After the network sync is over, the AP names that are created in Meraki in Spanish language UTF 8 character are displayed incorrectly in the dashboard.
When clicking the user activation link for an already activated user, redirection to login page is not happening in the Mozilla browser.
For Experience Zone, records are not filtered when searched based on the subset of parameters (For example, json values) in the experience zone.

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Table 2 ***Known Issues in the Enterprise Mobility Services Platform***

Description

In Experience Zone/Proximity rules sections, records are filtered based on earlier search criteria even after the page is reloaded or accessed after navigating to other options in the dashboard.

Unable to save the language settings for the portals due to validation message.

Support

The support documentation is available at <https://emsp.cisco.com>