

ETSI MEC Developer API Update

Open Edge Computing Workshop

December 4–5. 2019

CMU, Pittsburgh, PA

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Update to Device Application API ^{1/2}

- The device application API of ETSI MEC [Draft GS MEC 016] is the API on Mx2 reference point between the device application and the User Application LifeCycle Management Proxy (UALCMP) in the MEC system
 - MEC Reference Architecture [GS MEC 003 v2.2.1] defines the device application as an app that supports device application API
 - The device itself can reside in fixed/wireless/cellular networks
- The API exposes a limited set of user application lifecycle management operations to the external party such as an application developer:
 - query available applications, request instantiation/deletion/update of applications, receive related notifications from the MEC system
- In 2H19 the device application API has been extended with the following capabilities, implemented in GS MEC 016 v2.2.1:
 - App instance awareness
 - App location constraints

Update to Device Application API _{2/2}

App Instance awareness

- The device app can be made aware of specific or all instances of the MEC application, both in application queries and in application instantiation

Location constraints

- The device app now have means to a) query available apps and locations of their instances b) query available locations for a new app to be instantiated c) request the instantiation of the app in specific location(s)
- The device app receives notifications on new available locations for an app, and it can ask the MEC system automatically instantiate app in any originally desired location if they become later available
- To support anticipated use cases the location constraint has a global scope, incl. country code and civic address elements [RFC 4776]
Other location formats are FFS
- API specification is planned to be functionally frozen in mid-January 2020 and be published by March 2020

CAtype	label	description
1	A1	national subdivisions (state, canton, region, province, prefecture)
2	A2	county, parish, gun (JP), district (IN)
3	A3	city, township, shi (JP)
4	A4	city division, borough, city district, ward, chou (JP)
5	A5	neighborhood, block
6	A6	group of streets below the neighborhood level

Could this API be endorsed as an edge developer API by the OEC?

MEC API Conformance Testing Specification

- Development of MEC API conformance test specifications started in early 2019
- The scope of the first release is to provide conformance tests for MEC API servers according to the ETSI MEC specifications:
MEC service APIs ETSI GS MEC 012, 013, 014, 015, 016, 029 and the MEC Application Enablement API ETSI GS MEC 011
- Today the work is on stable draft stage, expected to be complete in 1Q20
 - Part 1: Test Requirements and Implementation Conformance Statement (ICS)
 - Part 2: Test Purposes (TP)
 - Part 3: Abstract Test Suite (ATS) in TTCN-3 and Robot FrameworkTesting and Test Control Notation v3 in ETSI ES 201 873-1
<http://robotframework.org/robotframework/latest/RobotFrameworkUserGuide.html>
- All specifications available in the ETSI MEC Open Area: <https://docbox.etsi.org/ISG/MEC/Open>
 - Validation of the test scripts is ongoing
 - Test scripts will be published in ETSI Forge: <https://forge.etsi.org/> along with the test tools
- The availability of the next releases of the test scripts with new APIs and updates to existing APIs will depend on the perceived external interest and use

MEC Sandbox

- A pioneering work by ETSI ISG MEC, conducted in an ETSI funded project to demonstrate the value of MEC APIs through *functional service end points* exposed to external developers

NOTE: MEC Sandbox is not a development environment for the developers/apps

- Developers have been asking for access to functional MEC services
- Functionality of the services is provided in the back end driving the API responses, notifications, etc. specific to users and their chosen scenarios
- MEC sandbox web portal will also provide contact points to available external MEC development environments where the developers can run their own apps

MEC Hackathons

- London MEC hackathon in Edge Computing Congress 2019
- The “sister event” in Shenzhen, China with real 5G network environment
 - Good attendance in both events
- Akraino 5G MEC hackathon in collaboration with ETSI MEC in November
 - A starting point for a broadening collaboration

THANK YOU