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For: everyone

Insights for Edge Software Developers

Episode #3 – Edge enablement APIs
In this episode ...

• We will learn:
  • The definition of MEC application and MEC service;
  • How to start and stop a MEC application instance;
  • How to register, discover a MEC service;
  • Support from the MEC platform, e.g. traffic rules, DNS handling.

Read API specs on [www.etsi.org/committee/1425-mec](http://www.etsi.org/committee/1425-mec)
Experience MEC APIs on [try-mec.etsi.org/](http://try-mec.etsi.org/)
MEC offers to application developers and content providers cloud-computing capabilities and an IT service environment at the edge of the network.

**1 – The essence of MEC**

How do I reach my cloud service?

What is my QoS?

Where am I?

What is around me?

How do I get discovered by my users?

How am I connected to the users?

How many users am I serving? And where?

How to be sure I am running when and where needed?

What if my users move?

MEC is focused on existential questions of applications “on the edge”
2 – Definitions

MEC application
- can be instantiated on a MEC host within the MEC system
- can provide or consume MEC services

MEC Host
- contains a MEC platform and a virtualisation infrastructure
- provides compute, storage and network resources to MEC applications

MEC platform
- collection of functionality
  - to run MEC applications
  - to enable MEC applications to provide/consume services
  - to provide MEC services

MEC service
Service provided via the MEC platform either by the MEC platform or by a MEC application
3 – MEC application start-up

Assumptions:

- MEC platform can verify the authenticity of the MEC application with the aid of an AA entity that contains the registration related information about the MEC application.
- For actual authentication, MEC application uses access token based on OAuth2.0.
- MEC platform has received the valid configuration for MEC applications (e.g. the required and the optional services, the services to be offered by the application instance and the associated transport dependency, the associated traffic rules and DNS rules).
4 – MEC application graceful termination

- Upon receiving a request MEC platform notifies the MEC application instance of graceful termination with a timer.

- When the timer expires, MEC platform continues terminating the MEC application instance.

- The MEC application instance has the option to inform the MEC platform that it is ready to be terminated after finishing application level actions.
When a MEC service is registered by the service producing MEC application, the authorized relevant applications (e.g. the applications that indicate the service as "optional" or "required") will be notified about the newly available service.

The authorized relevant applications will also be notified about the service availability changes of that service.
6 – Other services provided by the MEC platform

- Traffic rule defines per flow/packet filter on how to handle the packets at the MEC host.
- Upon receipt of the request, the MEC platform instructs the data plane accordingly.

- The MEC platform receives DNS records from the MEC platform manager and uses them to configure a DNS proxy/server.
Conclusions and further resources

What we have learnt:

• The definition of MEC application and MEC service;
• How to start and stop a MEC application instance;
• How to register, discover a MEC service;
• Support from the MEC platform, e.g. traffic rules, DNS handling.

Interested to learn more?

• Look for yourself at the available MEC011 APIs at forge.etsi.org/rep/mec
• Also play with them with the MEC Sandbox: https://try-mec.etsi.org/
• Follow also the next episodes of the MEC TECH Series 😊
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