**3GPP TSG-SA WG6 Meeting #45-BIS-e meeting S6-212248 rev2**

**11th Oct – 19th Oct 2021, Online**

**Source: Intel, Nokia**

**Title: FS\_eEDGEAPP: EAS Dual Registration**

**Spec: 3GPP TR 23.700-98**

**Agenda item: 10.8**

**Document for: Approval**

**Contact: samar.shailendra@intel.com**

# 1 Introduction

As specified in TS 23.558 (Rel-17), the relationship between EDGEAPP architecture and ETSI MEC architecture has been discussed. The TR 23.700-98 KI #5 also intends to address the various deployment strategies of both ETSI MEC and EDGEAPP in a single environment. This pCR intends to introduce an approach of “EAS dual registration” i.e., registering an EAS both with EES and MEC Platform to enable it to access APIs from both the platforms. It must be noted that the similar contribution has been provided at ETSI ISG MEC as well where MEC App is enhanced to support the dual registration both with MEC Platform and EES.

# 2 Discussion

It is in general desirable to align the two platforms (EDGEAPP and ETSI MEC) so that an application can access the APIs from the two platforms while there is no dependency over the evolution of respective architectures at two SDOs. ETSI MEC supports the MEC App registration with the MEC Platform on Mp1 interface. In this pCR, we propose to introduce an update in the EAS for a dual registration process i.e., registration with EES as the primary system while with MEC Platform as the secondary system to access its APIs. The dual registration will obviate the need of developing different apps for different platforms, help with synergized evolution of the two platforms without hampering their autonomy.

The EAS profile can be updated to indicate the target dual platform for the registration. An exemplary list of information element of the updated EAS profile for dual registration:

|  |  |  |  |
| --- | --- | --- | --- |
| Request/Response Type | Information element | Status | Description |
| EAS Registration Request | EAS Profile  | M | EAS Profile as described in Table 2 |
| EAS Primary  | M | Primary Registration platform (EES) |
| Dual Deployment  | O | Secondary system (default: ETSI MEC). [Note1]. |
| Security credentials | M | Security credentials of the EAS. |
| Proposed expiration time | O | Proposed expiration time for the registration |
| EAS Registration Response | Successful response | O | Indicates that the registration request was successful. |
| > Primary Registration Platform | O | EES identifier |
| > Secondary Registration Platform | O | MEC Platform identifier. [Note1]. |
| > Registration ID | O | App Identifier of the dual registration to both EES and MEC Platform  |
| > Expiration time | O | Indicates the expiration time of the registration. To maintain an active registration status, a registration update is required before the expiration time.If the Expiration time IE is not included, it indicates that the registration never expires. |
| Failure response | O | Indicates that the registration request failed. |
| > Cause | O | Indicates the cause of registration request failure |
| Note1: the information on the MEC platform identifier is supposed to be known since the beginning by the EES, i.e. as part of a preliminary setup/ pre-configuration phase, as a result of an agreement between the two platform/systems. |

It must be further noted that this set of registration is optional and up to the application developer to decide whether such a registration is desirable.

# 3 Proposal

It is proposed to modify the text of TR 23.700-98 as follows.

*1st CHANGE*

4.x Solution X: EAS Dual Application Registration

8.4.3.2.x EAS Dual Application Registration

Pre-conditions:

1. The EAS has been configured with an EASID;
2. The EAS has been configured with the address (e.g. URI) of the EES; and
3. Both the EAS and EES have the necessary credentials to enable communications.
4. EES is aware of MEC Platform and aware of the process to register EAS with MEC platform.



Dual application registration procedure:

1. The EAS determines that dual application registration to the EES and MEC Platform is desired and sends a dual application registration request to EES.
2. The EES performs an authorization check to verify whether the EAS has the authorization to register on the EES. After the verification, it registers the EAS.
3. EES sends an application registration request on behalf of EAS to the MEC platform.
4. MEC Platform does the authorization check and registers the EAS.
5. Upon successful registration MEC Platform responds with application registration response to EES.
6. EES in turn responds with EAS dual registration response to EAS, including URI of the MEC platform.

Editor’s Note: EES and MEC Platform registration may have different service areas and registration expiration times. The approach to handle these is FFS.

Editor’s Note: Alignment of Edge-9 and Mp3 is FFS.

*END OF CHANGES*