**Agenda item:** 8.7

**Source:** Tencent Cloud

**Title: Application context relocation by reference**

**Document for** Discussion andAgreement

# Introduction

At one of the recent SA4’s MBS ad-hoc calls, the SA6 liaison response was shared that confirmed the following two concepts:

1. Each server/or server application that connects to an application client, is an EAS. Therefore, even if a container consists of multiple applications, each is considered a separate EAS.
2. The relocation of an application context can only occur through EES, i.e. the location of the storage is transferred from S-EAS to S-EES and then to T-EES and finally to T-EAS (EELManagedACR procedure).

# Currently supported application context transfer

TS23.558 in its EELManagedACR provides the following for transferring the application context from S-EAS to T-EAS (TR23.558 clause 8.8.2.5):

*“10. The Application Context is transferred from S-EAS to the T-EAS at implementation specific time. In the case of EELManagedACR, the S-EES accesses the Application Context from the address as per step 1 and the S-EES and T-EES engage in the ACT from S-EAS to the T-EAS (obtained as per step 5) in a secure way. Further the T-EAS accesses the Application Context made available by the T-EES. If S-EAS performs the ACT directly with T-EAS, the specification of such process is out of scope of the present document.*

*NOTE 1: The Application Context is encrypted and protected by the application layer. The S-EES and the T-EES engage in the packet level transport of the Application Context and they have no visibility to the content of the Application Context.”*

One option is that while the S-EAS Application Context is accessible by S-EAS from its storage location, the actual transfer of data goes through the following path:

S-EAS🡪S-EES🡪 T-EES🡪T-EAS

The other alternative is provided is the direct transfer of Application Context from S-EAS to T-EAS but this option is not part of the standard.

# Context transfer by reference use-case

One alternative would be to use the EELManagedACR to exchange the connection information needed for the direct transfer between S-EAS and T-EAS through S-EES and T-EES but leave the actual transfer from S-EAS to T-EAS outside of the scope of the standardization. The connection information includes attributes that is needed for the direct transfer such as:

1. Address of the application context storage
2. Unique ID for application context
3. Supported protocols for context transfer
4. Security information needed
5. Availability expiration time for transfer

An example of the call flow for this use case is shown in the following figure:



# Proposal

We propose the following:

1. requesting to consider the context transfer by reference use case and addressing it
2. Include the following note in the dCR as the placeholder for further discussion at receiving the response from SA6:

Editor's Note: A liaison has been initiated with SA6 to discuss the possibility of extending the *EELManagedACR* procedure to support passing a reference to an offer of application context transfer. The parameters of this operation could include a unique transfer offer identifier, the endpoint address of the application context to be relocated, supported transfer protocols, security context, and expiration time of the transfer offer.