

Charging Aspects of CAPIF - Version 0.0.2

SA5

<https://nwm-trial.etsi.org/#/documents/8803>

1 Justification

This study item aims to study how to enhance the Charging Architecture in order to support CAPIF.

In TS 23.501 clause 6.2.5.1 it's stated that in case NEF is used for external exposure that CAPIF may be supported (CAPIF API Provider domain Functions), Northbound APIs which can be supported by 5GC network, can be discovered by the NEF through a CAPIF function.

In TS 23.222, there are references on the need to support charging, although, the specification is outdated because it doesn't make references to Converged Charging scenarios, but only to Online and Offline Charging Scenarios.

The current Charging specifications are absent of information on how CAPIF should be integrated with Charging Management Domain, though there requirements from TS23.222 that should be studied and evaluated, as listed below:

The CAPIF shall support online and offline charging for service APIs usage. The CAPIF shall provide mechanisms to record the usage (e.g. invocation count) of the service APIs for charging purpose, on a per API invoker basis. The CAPIF shall provide mechanisms to record timestamp of the service API invocation. The CAPIF shall provide mechanisms to record the service API related information, e.g. API location. The CAPIF shall support online and offline charging for 3rd party API providers' service APIs usage. The CAPIF shall provide mechanisms to query charging related information of the 3rd party service APIs by the authorized users.

Feedback Form 1:

1 – Huawei Tech.(UK) Co.. Ltd
Please clarify what is the Charging management domain? what is the different between NEF charging and charging for CAPIF? Thanks.
2 – Nokia
@Huawei NEF Charging is described in TS 32.254. I believe that best option, as suggested by Ericsson, is to have a statement on the NEF Converged Charging, and the need to study it's relation with CAPIF

2 Objective

The objective of the study is to:

- Identify new charging scenarios and requirements for supporting CAPIF.

- study the potential charging solutions in order to support CAPIF.

Feedback Form 2:

<p>1 – Huawei Tech.(UK) Co.. Ltd</p> <p>Whether the charging requirements of CAPIF described in the SA6 is studied or not?</p>
<p>2 – Ericsson LM</p> <p>Should we have some discussion on the relationship with the Exposure function Northbound API charging?</p>
<p>3 – Nokia</p> <p>@Huawei The charging requirements are not yet studied.</p> <p>@Ericsson Thank you. I'll make a reference to it.</p>

3 Expected Output and Time Scale

Table 1:

New specifications {One line per specification. Create/delete lines as needed}					
Type	TS/TR number	Title	For info at TSG#	For approval at TSG#	Rapporteur
Internal TR	TR 28.xxx	Study on Charging Aspects for CAPIF	TSG SA#106 (Dec 2024)	TSG SA#107 (Mar 2024)	João Rodrigues, Nokia, joao.a.rodrigues@nokia.com

Feedback Form 3:

<p>1 – Huawei Tech.(UK) Co.. Ltd</p> <p>The Rapporteur should be appointed by SA5 Chair?</p>

2 – Nokia

@Huawei Correct. Thank you.

4 Aspects that involve other WGs

The following aspects are potentially analysed by SA3:

- Security aspects relevant for CAPIF Charging communication

The following aspects are potentially analysed by SA6:

- CAPIF Requirements
- CAPIF Functional architecture and relation with Charging Management Domain

Feedback Form 4:
