**3GPP TSG- Meeting #**

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| *CR-Form-v12.3* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  |  | **CR** |  | **rev** | **1** | **Current version:** |  |  |
|  | | | | | | | | |
| *For* [***HE******LP***](http://www.3gpp.org/3G_Specs/CRs.htm#_blank)*on using this form: comprehensive instructions can be found at* [*http://www.3gpp.org/Change-Requests*](http://www.3gpp.org/Change-Requests)*.* | | | | | | | | |
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| ***Proposed change affects:*** | UICC apps |  | ME |  | Radio Access Network |  | Core Network | **x** |

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| ***Title:*** |  | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** |  | | | | | | | | | |
| ***Source to TSG:*** | S5 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** |  | | | | |  | ***Date:*** | | |  |
|  |  | | | |  | |  | | |  |
| ***Category:*** |  |  | | | | | ***Release:*** | | |  |
|  | *Use one of the following categories:* ***F*** *(correction)* ***A*** *(mirror corresponding to a change in an earlier release)* ***B*** *(addition of feature),* ***C*** *(functional modification of feature)* ***D*** *(editorial modification)*  Detailed explanations of the above categories can be found in 3GPP [TR 21.900](http://www.3gpp.org/ftp/Specs/html-info/21900.htm). | | | | | | | | *Use one of the following releases: Rel-8 (Release 8) Rel-9 (Release 9) Rel-10 (Release 10) Rel-11 (Release 11) … Rel-17 (Release 17) Rel-18 (Release 18) Rel-19 (Release 19)  Rel-20 (Release 20)* | |
|  |  | | | | | | | | | |
| ***Reason for change:*** | | |  | | --- | | Making available API Charging through CCF | |  | | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | New flow for API Invoker/Provider Charging (ECUR mode) | | | | | | | | |
|  | |  | | | | | | | | |
| ***Consequences if not approved:*** | | API Invoker/Provider will not be able to be billed | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 5.4.2.x | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **Y** | **N** |  | | | |  | | |
| ***Other specs*** | |  | **x** | Other core specifications | | | | TS/TR ... CR ... | | |
| ***affected:*** | |  | **x** | Test specifications | | | | TS/TR ... CR ... | | |
| ***(show related CRs)*** | |  | **x** | O&M Specifications | | | | TS/TR ... CR ... | | |
|  | |  | | | | | | | | |
| ***Other comments:*** | |  | | | | | | | | |
|  | |  | | | | | | | | |
| ***This CR's revision history:*** | |  | | | | | | | | |

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| **First change** |

#### 5.4.2.x CAPIF Invoker and Provider Request (ECUR)

Figure 5.4.2.x-1 describes the scenario where an API Invoker Management Request is delivered from the CCF for ECUR mode.

A screenshot of a diagram

AI-generated content may be incorrect.

Figure 6.4.5.1-2: CAPIF Core Function Charging Scenario Example (ECUR)

1. CCF (CAPIF\_Event API) receives an API Invocation Request, from API Invoker.

1ch-a. The CCF sends Charging Data Request [Initial] to CHF for the received API Invocation.

1ch-b. The CHF creates a CDR for this API Invocation.

1ch-c. The CHF acknowledges and grants authorization by sending Charging Data Response [Event] to CCF.

2. If authorized CCF performs the actions needed to fulfil the API invoked.

3. The CCF continues the API invocation processing and sends the API Invocation Response to CCF.

3ch-a. The CCF sends Charging Data Request [Termination] to the CHF for terminating the charging associated with the API Invocation.

3ch-b. The CHF closes the CDR for this API Invocation.

3ch-c. The CHF acknowledges by sending Charging Data Response [Termination] to the CCF.

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| **Second Change** |

Annex C (informative):  
PlantUML source code

# C.1 Procedures for Northbound API converged online and offline charging scenarios

## C.1.z CAPIF Invoker and Provider Request (ECUR)

@startuml

participant "API Invoker" as API

participant "CAPIF Core Function" as CAPIF

participant "CHF" as CHF

API -> CAPIF : 1. API Invocation Request

group Charging Event Procedure

CAPIF -> CHF : 1ch-a. Charging Data Request [Event]

rnote over CHF #white

1ch-b. Create CDR

endrnote

CHF -> CAPIF : 1ch-c. Charging Data Response [Event]

end

rnote over CAPIF #white

2. API Publish (Notification), API Update Invocation fulfillment

endrnote

CAPIF -> API : 3. API Publish Notification, API Update Invocation response

group Charging Event Procedure

CAPIF -> CHF : 3ch-a. Charging Data Request [Event]

rnote over CHF #white

3ch-b. Create CDR

endrnote

CHF -> CAPIF : 3ch-c. Charging Data Response [Event]

end

@enduml

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| **End of changes** |