**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 canbe 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)* |
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| ***Reason for change:*** |

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| Making available API Charging through CCF  |
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| ***Summary of change:*** | New flow for API Invoker/Provider Charging (ECUR mode) |
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| ***Consequences if not approved:*** | API Invoker/Provider will not be able to be billed  |
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| ***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.



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** |