

Enhancement of Usage of User Identifiers in the 5G System (eUUI5)

A Rel-19 Study Proposal

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Rel-19 Proposal on User Identifiers (1/2)



- In the context of this work, the user to be identified could be an **individual human user** using a UE with a certain subscription, an **application** running on or connecting via a UE, **or a device** (e.g., a PINE) behind a gateway UE (e.g., a PEGC).
- In Rel-16, SA1 completed normative work for requirements related to user identities.
- The point of this proposal is initiate stage-2 and stage-3 work on user identities in Rel-19.
- What new use cases or opportunities would be enabled?
 - The operator could **identify the person using a UE and adjust network settings** (e.g., enable parental controls when a child is using a smartphone).
 - When a **UE is shared (e.g., a UE embedded in a vehicle)**, the operator could identify the user of the UE, adjust network settings, and charge the user independent of the subscription.
 - If a UE (e.g., PEGC) is associated with multiple PINEs, services can be adapted based on **identity of the PINE**.

Rel-19 Proposal on User Identifiers (2/2)



📶 The main topics that need to be studied are:

- The **format** of an operator assigned User Identifier that can be used to identify applications, people, and things (e.g., PINEs)
- What information is stored as part of the **user profile** (e.g., a user identity, user identity specific settings, charging details and parameters)
- How the **user identifier is linked to a subscription**.
- What **user identity specific settings and parameters** need to be taken into account by the 3GPP system when delivering a service. For example, how traffic is segregated (e.g., traffic segregation between users of the same UE for Policy Enforcement and Charging).

Thank you!

Rel-16 Background and References



- 📶 In November 2017, GSMA created requirements on Identity and Access Management.
- 📶 GSMA sent SA1 an LS letting them know about the requirements and providing the GSMA report ([S1-174220](#))
- 📶 SA1 replied and let GSMA know that they will study the topic ([S1-174557](#))
- 📶 SA1 agreed to a Study on a Layer for User Centric Identifiers and Authentication (FS_LUCIA, [SP-170995](#))
 - [TR 22.904](#).
- 📶 The normative work took place under the UIA work item ([SP-180328](#)) and resulted in new requirements.
 - See [TS 22.101](#) (Section 26a) and [TS 22.115](#) (section 5.2.17).
- 📶 In Rel-16, no progress was made on this topic beyond SA1

Rel-17 Background and References



- In Rel-17, SA2 approved a study on user identities and the study was approved at plenary (FS_UUI5, [SP-190450](#))
- FS_UUI5 did not survive SA Plenary's Rel-17 prioritization exercise.
 - The prioritization voting results are in [SP-190673](#) and show that FS_UUI5 had a lot of support compared to the other studies that were not down scoped.
 - The SID had 19 supporting companies and 24 votes from companies in the Rel-17 prioritization ([SP-190915](#)).

Rel-18 Background and References



In Rel-18, SA1 created requirements for Personal IoT Networks

- These requirements are built on the Rel-16 user identity requirements.
- TS 22.261 states *“The requirements as described in 3GPP TS 22.101 [6] clause 26a can also apply to Personal IoT Networks and Customer Premises Networks.”*

In Rel-18, SA2 approved a Study and WID on Personal IoT Networks ([SP-211643](#) and [SP-221343](#)).

- Both the SA2 SID and SA2 WID list SA1’s UIA as a parent work item
- However, the Rel-18 normative work will not include specification of a PINE ID that is controlled, or recognized, by the 5GC. Therefore, no normative work on user identities will be accomplished in Rel-18.