Minutes of eEdge\_5GC conference call (2021.10.14 13:00-15:00 UTC)

**Agenda:**

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| [S2-2107692](https://list.etsi.org/scripts/Docs/S2-2107692.zip) | CR | 23.548 CR0030 (Rel-17, 'C'): EAS rediscovery: Edge DNS Client based EAS (re-)discovery | Qualcomm etc |
| [S2-2107316](https://list.etsi.org/scripts/Docs/S2-2107316.zip) | CR | 23.548 CR0013 (Rel-17, 'D'): Remove EN on UE using MNO DNS configuration | Alibaba etc |
| [S2-2107245](https://list.etsi.org/scripts/Docs/S2-2107245.zip) | DISCUSSION | Way forwards for UE not using network provided DNS | Ericsson |
| [S2-2107669](https://list.etsi.org/scripts/Docs/S2-2107669.zip) | DISCUSSION | UE handling of DNS configuration | Lenov |
| [S2-2107372](https://list.etsi.org/scripts/Docs/S2-2107372.zip) | DISCUSSION | Resolving the Editor's Note on DNS procedure for EAS Discovery | Apple etc |
| [S2-2107282](https://list.etsi.org/scripts/Docs/S2-2107282.zip) | DISCUSSION | Discussion on EDC proposal | Samsung |
| [S2-2107542](https://list.etsi.org/scripts/Docs/S2-2107542.zip) | DISCUSSION | Potential way forward of UE Guarantee DNS setting to application | vivo |
| [S2-2107677](https://list.etsi.org/scripts/Docs/S2-2107677.zip) | DISCUSSION | Resolving the Editor's Note on DNS procedure for EAS Discovery | Google |
| [S2-2107730](https://list.etsi.org/scripts/Docs/S2-2107730.zip) | DISCUSSION | Discussion on way forward of UE DNS Query using EASDF's IP address | Xiaomi |

**Minutes from Rapporteur:**

1. Dario from Qualcomm presented S2-2107692

Sudeep: How the definition of EDC can enable the testability.

Dario: RAN 5 will use the definition to verify the behaviour of the UE.

Sudeep: Any difference between UEs with or without EDC?

Dario: Using other APIs not defined in 3GPP cannot be tested according to 3GPP specifications.

Sudeep: Can any DNS client sending DNS query to DNS server be called as EDC or it needs support both sending DNS query and sending DNS server to the APP?

Dario: Current proposal needs both. Different applications has different requirements.

Sudeep: Any DNS client can be called as EDC.

Question: If the operator send only EASDF in the ePCO not DNS, will all applications use EASDF?

Dario: MNO populates IP of DNS server in ePCO. Different procedures may use EASDF/ DNS server or DNS resolver. Which to be used depends on the operator.

Question: Does the application know it’s using an EASDF then use the API?

Dario: The assumption is MNO controlled application requires to use DNS from ePCO.

Jicheol: Questions whether the optional EDC solution can meet the testability requirement of the UE. An optional EDC in the UE cannot guarantee the behaviour.

Dario: If EDC is used, it’s testable.

Tingfang: 1. since whether EDC is used is based on application decision, how it can guarantee the usage of EASDF. 2. Is the interaction between application and OS new?

Dario: For MNO controlled EC services, the assumption is application wants to use service of the operator. Then test it happens or not. If the interaction between application and EDC is via OS, then it requires new interaction between the application and the OS to indicate the OS that EDC should be used.

Farooq: The EDC should be optional to use but should be mandatory for UE to implement. Otherwise if the UE has no such capability, we end up with same situation.

Qualcomm (Dario): Clarified that it is up to the user and application [to use EDC].  Qualcomm would like to enable an IMS like service.  Like using a specific slice/PDU.

AT&T (Farooq): stated that no-one is saying that this capability will override the user preference.

1. Hui presented S2-2107316 since Alibaba was absent.

Dario: Support the proposal of introducing the indication. Questions on how the NOTE can work if DNS encryption is used.

Hui: Firstly assume the application wants to use MNO DNS. The left is up to the UE implementation.

Discussion on the different DNS encryptions and how operator can detect or handle them as per the proposed NOTE.

1. Magnus presented S2-2107245.

Clarifications on the conditions sending the indication. Magnus: Up to the operator to decide whether to send the indication based on the regulation.

Sherry: How operator can make the decision since the indication is for the PDU Session which is shared by multiple applications?

Magnus: Operator is responsible for making the decision.

Jicheol: Does the solution require UE location? Relationship with the usage of the wifi?

Magnus: On the location, yes, regulation might be per country. On the wifi, depends on what wifi solution used.

1. Tingfang presented S2-2107669

Clarifications on differences between solution 2.3 and EDC solution. Discussion on the limitation of using Application ID in solution 2.2.

Dario: Question is still how the solutions can guarantee what the MNO and application want to happen.

Hui: Seems solution 2.1b and 2.2 are complex and not discussed before. Suggest to continue with solution 2.1a which is similar with other proposals of indication via NAS.

1. Sudeep presented S2-2107372

Dario: Not against to send LS to RAN5. RAN 5 cannot test messages not defined in 3GPP. Haris: For IMS, DNS is defined in 24.229.

Sudeep: The key is the signals from UE to the application. The test is for the UE behaviour as a whole.

Hui: With the “user preference”, how the test can differ whether it’s UE preference or UE behaviour if the UE didn’t use MNO DNS.

Sudeep: The test should ensure user preferences do not overwrite what application/OS/modem want to do.

Discussion on testability and the need to sending LS to RAN5.

Farooq: May need to prepare for sending a LS to RAN5. The minimum is to take UE as a whole for test, and the question is whether we can test UE as whole without defining EDC.

Hui: Not objecting to send LS to RAN5. We may have a timeline issue if the discussion depends on RAN 5 LS.

Susana: RAN 5 is on stage 3 and depends on CT specification. It’s too early to send LS to RAN5.

Sudeep: If there is procedure issue, we can have the requirements to stage 3 specification then RAN5 can define the test cases. No need to define details to trigger the test cases.

Jicheol: UE testability is the key question for whether EDC need to be defined.

AT&T (Farooq) mentioned that they need to have overall UE behavior that can be tested - internal of the UE should not be specified.
AT&T supports the idea of sending an LS to RAN 5
Huawei (Hui)  believes that the content of that LS would not be defined at this meeting.
Vodafone (Susana) states that RAN 5 only deals with stage 3 and hence LS should be delayed.

Jicheol presented S2-2107282.

Dario: EDC is proposed as optional is a compromise. The key is EDC does not depend on specific OS.

Sudeep: API is internal behaviour and does not impact network signal. Whether the DNS is sending to EASDF can be tested.

Huazhang presented S2-2107542

Susana: The issue should be resolved in SA2. AF outside of trust domain is not possible. Discussion on how to perform the interaction between application and AF.

Huazhang: API between application and UE OS is not SA2 scope. SA6 works on that part. eNA has defined some procedures using similar path.

Hui: If the protocol between EEC and EES is defined by SA6, then it’s a SA6 solution.

Aeneas presented S2-2107677

Hui: How the application can trigger a restricted PDU to be set up?

Aeneas: App may use a different PDU/PDN. OS should understand the application is different from internet applications. Slice may be considered.

Farooq: This only work in case user/application preference allows.

Dario: Using specific DNN was proposed before but not agreeable before.

Sherry presented S2-2107730

Farooq: We should figure out if we cannot agree with anything then what to do.

Haris: Should start to think about question for voting in #148 meeting.

Hui: We need to merge the contributions for less options for voting.

Hui presented a grouping of the contributions, and encourage similar contributions to merge before the meeting for easier discussion.

Meeting closed.

**Attendees (copied from meeting system at the end of the meeting):**

