**3GPP TSG-SA5 Meeting #142-e *S5-222117***

**e-meeting, 4-12 April 2022**

**Source: Huawei**

**Title: pCR TR 28.865 Add overview of FS\_DCSA**

**Document for: Approval**

**Agenda Item: 6.5.21**

# Decision/action requested

***The group is asked to discuss and endorse the proposals in section 4***

# 2 References

[1]  [SP-211442](https://portal.3gpp.org/desktopmodules/Specifications/SpecificationDetails.aspx?specificationId=3693): "New SID on deterministic communication service assurance"

# 3 Rationale

This pCR is to add overview for TR 28.865.

# 4 Detailed proposal

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| **Start of modification** |

# 2 References

The following documents contain provisions which, through reference in this text, constitute provisions of the present document.

- References are either specific (identified by date of publication, edition number, version number, etc.) or non‑specific.

- For a specific reference, subsequent revisions do not apply.

- For a non-specific reference, the latest version applies. In the case of a reference to a 3GPP document (including a GSM document), a non-specific reference implicitly refers to the latest version of that document *in the same Release as the present document*.

[1] 3GPP TR 21.905: "Vocabulary for 3GPP Specifications".

[2] 3GPP TS 22.261: "Service requirements for the 5G system".

[3] 3GPP TS 22.104: "Physical control applications in vertical domains".

[4] 3GPP TS 23.501: "System architecture for the 5G System (5GS)".

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| **Second modifications** |

# X Concepts and Overview

## X.1 Overview

5G network should satisfy diversified SLA requirements to support different vertical applications. Service requirements are more stringent for deterministic communication services as described in TS 22.261[2] and TS 22.104 [3], e.g., video monitoring for production environment in a factory, remote control etc. The latency/transmission time of a data package is bounded by a given threshold. There are two typical traffic classes or communication patterns for deterministic communication service: deterministic periodic communication and deterministic aperiodic communication. In clause 5 in TS 22.104 [3], performance requirements for some deterministic communication services are provided. In TS 23.501 [4], QoS characteristics are defined for some deterministic communication services, e.g. some 5QIs for delay critical GBR services. Communication service availability and reliability are more important for these services types. Service experience degradation or violation of the latency requirements such as unstable jitter or unexpected packet loss may result in service interruption or severe consequences. Stable and deterministic communication service experience should be assured.

There are some features in the 5G network to support deterministic communication services, e.g. URLLC related network functions for radio interface and 5GC network, 5GS Integration with TSN and Industrial IoT, high accurance positioning etc. How to support deterministic communication services from management aspects are investigated in this present document, e.g. provisioning of the related network functions, solutions for the assurance of deterministic communication services such as video monitoring and PLC control etc.

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| **End of modifications** |