**3GPP TSG- Meeting # *r2***

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| *CR-Form-v12.1* |
| **CHANGE REQUEST** |
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|  |  | **CR** |  | **rev** |  | **Current version:** |  |  |
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| *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 | **X** | Radio Access Network | **X** | Core Network | **X** |

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| ***Title:***  |  |
|  |  |
| ***Source to WG:*** |  |
| ***Source to TSG:*** | SA1 |
|  |  |
| ***Work item code:*** | Pirates |  | ***Date:*** | 5 |
|  |  |  |  |  |
| ***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-15 (Release 15)Rel-16 (Release 16)Rel-17 (Release 17)Rel-18 (Release 18)* |
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| ***Reason for change:*** | As a result from the Pirates work, requirements on CPN and PINs have been added. In these requirements new definitions and abbreviations are used, which should be added to the definitions and abbreviations section. |
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| ***Summary of change:*** | Adding definitions and abbreviations related to e.g. CPN and PIN |
|  |  |
| ***Consequences if not approved:*** | No definitions and abbreviations for the Pirates requirements |
|  |  |
| ***Clauses affected:*** | 3.1, 3.2 |
|  |  |
|  | **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 provides definitions and abbreviations for CR0533, CR0534, CR0536, CR0537, and CR0538 |
|  |  |
| ***This CR's revision history:*** |  |

## 3.1 Definitions

For the purposes of the present document, the terms and definitions given in 3GPP TR 21.905 [1] and the following apply. A term defined in the present document takes precedence over the definition of the same term, if any, in 3GPP TR 21.905 [1].

**5G enhanced positioning area:** a subset of the 5G positioning service area that is assumed to be provided with additional infrastructure or deploy a particular set of positioning technologies to enhance positioning services.

NOTE 1: The enhanced positioning service area represents for example a factory plant, a dense urban area, an area along a road or railway track, a tunnel and covers both indoor and outdoor environments.

**5G LAN-type service**: a service over the 5G system offering private communication using IP and/or non-, i.e. UEs that are members of the same 5G LAN-VN IP type communications.

**5G LAN-virtual network**: a virtual network capable of supporting 5G LAN-type service.

**5G satellite access network**: 5G access network using at least one satellite.

**5G positioning service area:** a service area where positioning services would solely rely on infrastructures and positioning technologies that can be assumed to be present anywhere where 5G is present (e.g. a country-wide operator-supplied 5G network, GNSS, position/motion sensors).

NOTE 2: This includes both indoor and any outdoor environments.

**active communication:** a UE is in active communication when it has one or more connections established. A UE may have any combination of PS connections (e.g. PDP contexts, active PDN connections).

**activity factor:** percentage value of the amount of simultaneous active UEs to the total number of UEs where active means the UEs are exchanging data with the network.

**area traffic capacity:** total traffic throughput served per geographic area.

**authorised administrator:** a user or other entity authorised to partially configure and manage a network node in a CPN (e.g. a PRAS, or eRG).

**communication service availability**: percentage value of the amount of time the end-to-end communication service is delivered according to a specified QoS, divided by the amount of time the system is expected to deliver the end-to-end service.

NOTE 3: The end point in "end-to-end" is the communication service interface.

NOTE 4: The communication service is considered unavailable if it does not meet the pertinent QoS requirements. For example, the communication service is unavailable if a message is not correctly received within a specified time, which is the sum of maximum allowed end-to-end latency and survival time.

**Customer Premises Network:** a network located within a premise (e.g. a residence, office or shop), which is owned, installed and/or (at least partially) configured by the customer of a public network operator.

**direct device connection:** the connection between two UEs without any network entity in the middle.

**direct network connection:** one mode of network connection, where there is no relay UE between a UE and the 5G network.

**Disaster Condition:** This is the condition that a government decides when to initiate and terminate, e.g. a natural disaster. When this condition applies, users may have the opportunity to mitigate service interruptions and failures.

**Disaster Inbound Roamer:** A user that (a) cannot get service from the PLMN it would normally be served by, due to failure of service during a Disaster Condition, and (b) is able to register with other PLMNs.

**Disaster Roaming:** This is the special roaming policy that applies during a Disaster Condition.

**end-to-end latency:** the time that it takes to transfer a given piece of information from a source to a destination, measured at the communication interface, from the moment it is transmitted by the source to the moment it is successfully received at the destination.

**evolved Residential Gateway:** a gateway between the public operator network (fixed/mobile/cable) and a customer premises network.

**holdover:** A clock A, previously synchronized/syntonized to another clock B (normally a primary reference or a Master Clock) but whose frequency is determined in part using data acquired while it was synchronized/syntonized to B, is said to be in holdover or in the holdover mode as long as it is within its accuracy requirements.

NOTE 4bis: holdover is defined in [31]

**Holdover time:** the time period that is available to repair the first priority timing source when it is lost (e.g., when the primary GNSS reference is lost). During this period the synchronization accuracy requirement should be guaranteed, e.g., by means of defining multiple synchronization references.

**Hosted Service:** a service containing the operator's own application(s) and/or trusted third-party application(s) in the Service Hosting Environment, which can be accessed by the user.

**hybrid access:** access consisting of multiple different access types combined, such as fixed wireless access and wireline access.

**indirect network connection:** one mode of network connection, where there is a relay UE between a UE and the 5G network.

**IoT device:** a type of UE which is dedicated for a set of specific use cases or services and which is allowed to make use of certain features restricted to this type of UEs.

NOTE 5: An IoT device may be optimized for the specific needs of services and application being executed (e.g. smart home/city, smart utilities, e-Health and smart wearables). Some IoT devices are not intended for human type communications.

**network slice:** a set of network functions and corresponding resources necessary to provide the required telecommunication services and network capabilities.

**NG-RAN:** a radio access network connecting to the 5G core network which uses NR, E-UTRA, or both.

**non-3GPP device:** a device that does not have a USIM.

**non-public network:** a network that is intended for non-public use.

**NR:** the new 5G radio access technology.

**Personal IoT Network:** A configured and managed group of at least one UE and one or more PIN Element that communicate with each other.

**PIN Element:** UE or non-3GPP device that can communicate within a PIN.

**PIN direct connection:** the connection between two PIN Elements without any 3GPP RAN or core network entity in the middle.

NOTE 5bis: A PIN direct connection could internally be relayed by other PIN Elements.

NOTE 5ter: When a PIN direct connection is between two PIN Elements that are UEs this direct connection is typically known as a direct device connection.

**PIN Element with Gateway Capability:** a UE PIN Element that has the ability to provide connectivity to and from the 5G network for other PIN Elements.

NOTE 5quater: A PIN Element can have both PIN management capability and Gateway Capability.

**PIN Element with Management Capability:** A PIN Element with capability to manage the PIN.

**Personal Networks:** the collective of Personal IoT Networks and/or Customer Premises Networks when discussed together.

**positioning service availability:** percentage value of the amount of time the positioning service is delivering the required position-related data within the performance requirements, divided by the amount of time the system is expected to deliver the positioning service according to the specification in the targeted service area.

**positioning service latency:** time elapsed between the event that triggers the determination of the position-related data and the availability of the position-related data at the system interface.

**Premises Radio Access Station:** a base station installed at a customer premises network.

**priority service:** a service that requires priority treatment based on regional/national or operator policies.

**private communication**: a communication between two or more UEs belonging to a restricted set of UEs**.**

**private network:** an isolated network deployment that does not interact with a public network.

**private slice:** a dedicated network slice deployment for the sole use by a specific third-party.

**Ranging:** refers to the determination of the distance between two UEs and/or the direction of one UE from the other one via direct device connection.

**relative positioning:** relative positioning is to estimate position relatively to other network elements or relatively to other UEs.

**reliability**: in the context of network layer packet transmissions, percentage value of the amount of sent network layer packets successfully delivered to a given system entity within the time constraint required by the targeted service, divided by the total number of sent network layer packets.

**satellite**: a space-borne vehicle embarking a bent pipe payload or a regenerative payload telecommunication transmitter, placed into Low-Earth Orbit (LEO) typically at an altitude between 300 km to 2 000 km, Medium-Earth Orbit (MEO) typically at an altitude between 8 000 to 20 000 k m, or Geostationary satellite Earth Orbit (GEO) at 35 786 km altitude.

**satellite access:** direct connectivity between the UE and the satellite.

**satellite NG-RAN:** a NG-RAN which uses NR in providing satellite access to UEs.

**service area:** geographic region where a 3GPP communication service is accessible.

NOTE 6: The service area can be indoors.

NOTE 7: For some deployments, e.g. in process industry, the vertical dimension of the service area can be considerable.

**service continuity:** the uninterrupted user experience of a service that is using an active communication when a UE undergoes an access change without, as far as possible, the user noticing the change.

NOTE 8: In particular service continuity encompasses the possibility that after a change the user experience is maintained by a different telecommunication service (e.g. tele- or bearer service) than before the change.

NOTE 9: Examples of access changes include the following. For EPS: CS/PS domain change. For EPS and 5G: radio access change, switching between a direct network connection and an indirect network connection.

**Service Hosting Environment:** the environment, located inside of 5G network and fully controlled by the operator, where Hosted Services are offered from.

**survival time:** the time that an application consuming a communication service may continue without an anticipated message.

**Time to First Fix (TTFF):** time elapsed between the event triggering for the first time the determination of the position-related data and the availability of the position-related data at the positioning system interface.

**User Equipment:** An equipment that allows a user access to network services via 3GPP and/or non-3GPP accesses.

**user experienced data rate:** the minimum data rate required to achieve a sufficient quality experience, with the exception of scenario for broadcast like services where the given value is the maximum that is needed.

**wireless backhaul:** a link which provides an interconnection between 5G network nodes and/or transport network using 5G radio access technology**.**

## 3.2 Abbreviations

For the purposes of the present document, the abbreviations given in 3GPP TR 21.905 [1] and the following apply. An abbreviation defined in the present document takes precedence over the definition of the same abbreviation, if any, in 3GPP TR 21.905 [1].

5G LAN-VN 5G LAN-Virtual Network

A/S Actuator/Sensor

CPN Customer Premises Network

eFMSS Enhancement to Flexible Mobile Service Steering

eRG Evolved Residential Gateway

eV2X Enhanced V2X

FMSS Flexible Mobile Service Steering

GEO Geostationary satellite Earth Orbit

ICP Internet Content Provider

ID Identification

IMU Inertial Measurement Unit

IOPS Isolated E-UTRAN Operation for Public Safety

LEO Low-Earth Orbit

MBS Metropolitan Beacon System

MCS Mission Critical Services

MCX Mission Critical X, with X = PTT or X = Video or X = Data

MEO Medium-Earth Orbit

MIoT Massive Internet of Things

MMTEL Multimedia Telephony

MPS Multimedia Priority Service

MSGin5G Message Service Within the 5G System

NPN Non-Public Network

PIN Personal IoT Network

PRAS Premises Radio Access Station

RSTP Rapid Spanning Tree Protocol

SEES Service Exposure and Enablement S

SST Slice/Service Type

TBS Terrestrial Beacon System

TTFF Time To First Fix