**3GPP TSG-SA WG1 Meeting #94e S1-211093r03**

**Electronic Meeting, 10 – 20 May 2021** *(revision of S1-21xxxx)*

Title: PIN – requirements consolidation

Agenda Item: 7.12.1

Source: Vivo Mobile Communications Ltd

Contact: Adrian(dot)Buckley(at)vivo(dot)com

*Abstract: This document proposes adds consolidated requirements.*

Discussion

Consolidates the requirements from the usecases. Each row identifies the existing PR number and also if there is a corresponding PR is TR 22.858

\*\*\*\*Changes\*\*\*\*

# 7 Potential Consolidated Requirements

This section provides Consolidated Potential Requirements for consideration to include in the normative specifications. The CPR’s have been grouped into different functional categories, each category contains a table that lists the original PR and any relationship to TR 22.858 [6].

## 7.1 Gateway

Table 7.1-1 – PIN Gateway Consolidated Requirements

| CPR No. | Potential Requirement |
| --- | --- |
|  | Original Potential requirementNo. | Potential requirement text | Equivalent CPR in TR 22.858 [6] |
| [CPR.7.1-1] | PR 5.3.6-3 | For a PIN it shall be possible to have more than one PIN Element with Gateway Capability. | PR 5.19.6-001 |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

## 7.2 Service Discovery

Table 7.2-1– PIN Service Discovery Consolidated Requirements

| CPR No. | Potential Requirement |
| --- | --- |
|  | Original Potential requirementNo. | Potential requirement text | Equivalent CPR in TR 22.858 [6] |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

## 7.3 Service Hosting

Table 7.3-1 – PIN Service Hosting Consolidated Requirements

| CPR No. | Potential Requirement |
| --- | --- |
|  | Original Potential requirementNo. | Potential requirement text | Equivalent CPR in TR 22.858 [6] |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

Editor’s Note: CPRs in clause 7.3 are subject to email on email thread “[FS\_PIN - 9] Resolving Editor's Notes on the Use Case UE accessing PIN applications hosted by gateways”

## 7.4 Privacy

Table 7.4-1 – PIN Privacy Consolidated Requirements

| CPR No. | Potential Requirement |
| --- | --- |
|  | Original Potential requirementNo. | Potential requirement text | Equivalent CPR in TR 22.858 [6] |
|  |  |  |  |
|  |  |  |  |

## 7.5 Direct Communications

Table 7.5-1 – PIN Direct Communications Consolidated Requirements

| CPR No. | Potential Requirement |
| --- | --- |
|  | Original Potential requirementNo. | Potential requirement text | Equivalent CPR in TR 22.858 [6] |
| [CPR.7.5-1] | PR 5.1.5-4 | The 5G system shall support mechanisms to provision a PIN to use PIN direct connection in non-operator managed spectrum when it has no connectivity to the 5G system. |  |
| [CPR.7.5-2] | PR 5.2.6-3 | The 5G system shall enable direct device communications between PIN Elements in a PIN to use licensed spectrum (under the control of a MNO) or between PIN Elements to use unlicensed spectrum (may be under the control of the MNO, or not). |  |
| [CPR.7.5-3] | PR 5.7.6-5 | The 5G system shall be able to support a PIN Element shall be able to concurrently use both operator managed and non-operator managed PIN direct connectivity with another PIN Element. |  |
| [CPR.7.5-4] | PR 5.4.6-1 | The PIN Element can act upon user and operator preferences to aggregate, switch or split the service between non-3GPP RAT and operator managed PIN direct connection services.  | PR 5.10.6-001 |
| [CPR.7.5-5] | PR 5.4.6-2 | When operator managed PIN direct connections are used for inter PIN UE Element communications the 5G System shall be able to collect charging data, including data transmitted over the operator managed PIN direct connection between the PIN Elements, time, the operator managed resources used for the data transmission, e.g. operators managed spectrum and etc. |  |
| [CPR.7.5-6] | PR 5.4.6-3 | When PIN UE Element uses unlicensed spectrum for PIN direct connections for intra PIN UE device communications the 5G System may, subject to local/regional regulations and user consent, collect statistics data, including if 3GPP authentication was used. |  |

## 7.6 Connectivity - QoS - charging

Table 7.6-1 – PIN Connectivity, QoS and Charging Consolidated Requirements

| CPR No. | Potential Requirement |
| --- | --- |
|  | Original Potential requirementNo. | Potential requirement text | Equivalent CPR in TR 22.858 [6] |
| [CPR.7.6-1] | PR 5.3.6-1 | For intra-PIN communications, a PIN Element shall be able to transmit media to one or more PIN Elements at the same time. |  |
| [CPR.7.6-2] | PR 5.7.6-6 | The 5G system shall be able to support that a PIN Element can support concurrent communications with PIN Elements in more than one PIN. |  |
|  |  |  |  |
| [CPR.7.6-4] | PR 5.7.6-7 | The 5G system shall be able to provide secure communications between PIN Elements in a PIN or across different PIN. |  |
|  |  |  |  |
|  |  |  |  |
| [CPR.7.6-7] | PR 5.1.5-3 | The PIN shall support fault tolerant operations. |  |

## 7.7 Provisioning

Table 7.7-1 – PIN Provisioning Consolidated Requirements

| CPR No. | Potential Requirement |
| --- | --- |
|  | Original Potential requirementNo. | Potential requirement text | Equivalent CPR in TR 22.858 [6] |
| [CPR.7.7-1] | PR 5.1.5-1 | The 5G system shall support the ability for a network operator or authorised 3rd party to create a PIN. |  |
| [CPR.7.7-2] | PR 5.2.6-2 & PR 5.7.6-2 | The 5G system shall support a PIN Element being added or removed from a PIN. |  |
| [CPR.7.7-3] | PR 5.2.6-1 & PR 5.7.6-1 | The 5G system shall support that a PIN Element may be a member of more than one PIN. |  |
| [CPR.7.7-4] | PR 5.7.6-4 | The 5G system shall be able to provision PIN Elements that have been authorised to use that PIN with the necessary configuration parameters to use that PIN subject to MNO and local policies. |  |

## 7.8 Positioning

Table 7.8-1 – PIN Positioning Consolidated Requirements

| CPR No. | Potential Requirement |
| --- | --- |
|  | Original Potential requirementNo. | Potential requirement text | Equivalent CPR in TR 22.858 [6] |
|  |  |  |  |
| None identified |

## 7.9 KPIs

Editor’s note: KPI still need to be completed at SA1#95e, this section will be updated then.