The UIA\_ARC WID is [SP-240971](https://www.3gpp.org/ftp/tsg_sa/TSG_SA/TSGS_104_Shanghai_2024-06/Docs/SP-240971.zip).

The conclusions related to the UIA\_ARC WID are in [TR 23.700-32](https://portal.3gpp.org/desktopmodules/Specifications/SpecificationDetails.aspx?specificationId=4257), section 8.4.

This document is meant to be an initial list of the clauses that will be impacted by the CRs that are needed to implement the objectives of the UIA\_ARC WID.

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| --- | --- | --- | --- | --- |
| **Topic** | **Specification** | **Impacted Clause** | **Reason for Change** | **Interested Companies** |
| **General Text** | | | | |
| **Summary** | TS 23.501 | New section 5.x (e.g. 5.48). Titled “Identifying non-3GPP Devices Connecting behind a UE or 5G-RG.” | Summarize the feature. SP-240971: “The objective is that the 5GC is able to associate the traffic from each individual non-3GPP device with a Device Identifier and use the Device Identifier to obtain QoS Settings for the traffic.”  Nokia: Also add clarifications on which aspects are outside the scope of 3GPP in related to the provisioning and binding.  This section I assume would become a sub bullet under a new section when the KI1,2,3 are concluded. | Huawei  Nokia |
| **Device Identifier** | TS 23.501 | Section 5.9 is titled “Identifiers”. A new section 5.9.x can be added. | SP-240971: “A Device Identifier will be specified. A Device Identifier is a permanent identifier and will be a generic string, and the allocation of the Device Identifier is out of scope of 3GPP.” | Nokia |
| **5G-RG** | TS 23.316 | New section 4.5.x (e.g. 4.5.4). Titled “Identifying non-3GPP Devices Connecting behind a UE or 5G-RG.”  New section 4.7.x. to define the device identifier.  New section 4.10e to define the Non-3GPP device and distinguish it this feature with the AUN3 devices.  9.5.2.1 enhance the URSP rules | A new section under “4.5 QoS Model” to refer the details that are added in TS 23.501, TS 23.502, and TS 23.503 and to say that this feature can be used by a 5G-RG. | Huawei  Nokia |
| **Registration procedure** | | | | |
| **Registration procedure** | TS 23.502 | 4.2.2.2.2 | Network capability indication for the support of the Device ID feature. | Huawei |
|  |  |  |  |  |
| **PDU Session Procedure** | | | | |
| **PDU session establishment procedure** | TS 23.502 | 4.3.2.2 | Sending Device Identifier from the UE to the network for policy control. | Huawei |
| **PDU Session Modification -General Description** | TS 23.502 | 4.3.3.1 | Update the sentence that says when the PDU Session Modification Procedure is used (see below). | Nokia |
| **PDU Session Modification - Procedure** | TS 23.502 | 4.3.3.2 | SP-240971: “Once a UE/5G-RG binds the Device Identifier to a non-3GPP device, QoS differentiation can be performed within a PDU Session (using different QoS Flows) or between PDU Sessions. In the case of non-3GPP devices sharing a PDU Session, QoS Flows are provisioned in the UE/5G-RG using PDU Session Modification procedures.” and “UE/5G-RG may send the Device Identifier and user plane address of the non-3GPP device to the SMF in a NAS-SM message, and the SMF will forward the Device Identifier and user plane address to the PCF. The PCF will take it into account for policy decisions based on the Device Identifier information retrieved from the UDR. Device Identifier is used to retrieve the information from the UDR. The user plane address for a non-3GPP device can be the UE IP Address and/ Port ranges in case of IPv4 or an IPv6 address for IP PDU session type and the MAC address and/or the VLAN tag ID that is associated with the non-3GPP device’s traffic for Ethernet PDU Session type.” | Huawei (focusing on IP PDU Session)  Nokia |
| **PCF** | TS 23.503 | 6.2.1.2 Input for PCC decision | SP-240971: “The PCF will take it into account for policy decisions based on the Device Identifier information retrieved from the UDR.” | Nokia |
| **PCF** | TS 23.503 | 6.6.2.1 | URSP extension on the Device ID | Huawei |
| **UDR** | | | | |
| **UDR Description** | TS 23.501 | 6.2.11 UDR | Update to say that the UDR supports this functionality. See below |  |
| **UDR Services** | TS 23.502 | 5.2.12 UDR Services | SP-240971: “Device Identifiers and their corresponding QoS/Policies associated with a UE/5G-RG subscription are provisioned into the UDR.” | Nokia |
| **Provisioning of the UDR** | | | | |
| **Provisioning of the UDR** | TS 23.502 | Section 4.15.6 is “External Parameter Provisioning”. New section 4.15.6 (e.g. 4.15.6.15). Titled “Provisioning Parameters for non-3GPP Devices” | SP-240971: “This provisioning can be done by AF.” | Nokia |
| **NEF Services** | TS 23.502 | 5.2.6 NEF Services | SP-240971: “This provisioning can be done by AF.” | Nokia |
| **UDR Description** | TS 23.501 | 6.2.5 UDR | Update to say that the NEF supports the provisioning functionality. | Nokia |
| **DHCPv6** | | | | |
| **DHCPv6** | TS 23.501 | Section 5.8.2.2 is “UE IP Address Management”. New section 5.8.2.2.x (e.g. 5.8.2.2.5). Titled “Using DHCPv6 to Associate a non-3GPP Device Identifier with User Plane Traffic.” | SP-240971: “UE/5G-RG may also send the Device Identifier of the non-3GPP device to the SMF in DHCPv6 message to associate the Device Identifier with the user plane address” |  |
| **Restriction on max number of simultaneously active Device Identifiers per UE/5G-RG** | | | | |
| **Registration procedure** | TS 23.502 | 4.2.2.2.2 | AMF obtains the Max number of Device ID from UE subscription data | Huawei |
| **PDU Session Modification - Procedure** | TS 23.502 | 4.3.3.2 | Update to show when / how enforcement happens.  SP-240971: “The optional restriction within the 5GS on max number of simultaneously active Device Identifiers per UE/5G-RG for devices whose traffic need to be differentiated will be handled as part of this work.” | Huawei  Nokia |
| **UDM Services** | TS 23.502 | 5.2.3 UDM Services | Update for retrieving the per UE/5G-RG restriction on the max number of simultaneously active Device Identifiers. | Huawei  Nokia |