**3GPP TSG-CT WG1 Meeting #135-eC1-222565**

**E-Meeting, 6th – 12th April 2022**

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| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| *CR-Form-v12.1* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **24.554** | **CR** | **0005** | **rev** | **1** | **Current version:** | **17.0.0** |  |
|  | | | | | | | | |
| *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 |  | Core Network | **X** |

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|  | | | | | | | | | | |
| ***Title:*** | RRC container in L2 relay discovery message | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | OPPO, China Telecom | | | | | | | | | |
| ***Source to TSG:*** | C1 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | 5G\_ProSe | | | | |  | ***Date:*** | | | 2022-4-6 |
|  |  | | | |  | |  | | |  |
| ***Category:*** | F |  | | | | | ***Release:*** | | | Rel-17 |
|  | *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 can be 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)* | |
|  |  | | | | | | | | | |
| ***Reason for change:*** | | In TS 23.304 (S2-2201297), the RRC container is added into the L2 relay discovery message to provide the cell and PLMN related information.  The content of RRC container is defined in TS 38.331 (CR#2910).  The corresponding stage 3 implementation is needed. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | Add RRC container in L2 relay discovery message. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Consequences if not approved:*** | | Missing stage 2 requirements. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 8.2.1.2.2.2, 8.2.1.3.2.2, 10.2.1, 10.2.a(new) and 11.2.z(new) | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **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's revision history:*** | |  | | | | | | | | |

\* \* \* First Change \* \* \* \*

###### 8.2.1.2.2.2 Announcing UE procedure for UE-to-network relay discovery initiation

The UE is authorised to perform the announcing UE procedure for UE-to-network relay discovery if:

a) the UE is authorised to act as a UE-to-network relay in the PLMN indicated by the serving cell as specified in clause 5.2.5, and

1) the UE is served by NG-RAN and the UE is authorised to perform 5G ProSe direct discovery in the PLMN as specified in clause 5; or

2) the UE is authorised to perform 5G ProSe direct discovery when not served by NG-RAN as specified in clause 5 and intends to use the provisioned radio resources for UE-to-network relay discovery;

b) the UE is configured with:

1) the relay service code parameter identifying the connectivity service to be announced as specified in clause 5.2.5, and for 5G ProSe layer-3 UE-to-network relay UE,

i) the S-NSSAI associated with that relay service code shall belong to the allowed NSSAI of the UE; and

ii) if the UE is camped on a cell whose TAI is in the list of "non-allowed tracking areas" or is camped on a cell whose TAI is not in the list of "allowed tracking areas", then the relay service code shall be associated with an emergency service or high priority access as defined in clause 5.3.5 of 3GPP TS 24.501 [11]; and

2) the User info ID for the UE-to-network relay discovery parameter as specified in clause 5.2.5;

c) for 5G ProSe layer-3 UE-to-network relay UE, the UE is configured with PDU Session parameters which is used for relayed traffic for the associated relay service code, as specified in clause 5.2.5; and

d) the back-off timer T3346 used for NAS mobility management congestion control as specified in clause 5.3.9 of 3GPP TS 24.501 [11] is not running at the UE;

otherwise, the UE is not authorised to perform the announcing UE procedure for UE-to-network relay discovery.

Figure 8.2.1.2.2.2.1 illustrates the interaction of the UEs in the announcing UE procedure for UE-to-network relay discovery.



Figure 8.2.1.2.2.2.1: Announcing UE procedure for UE-to-network relay discovery

When the UE is triggered by an upper layer application to announce availability of a connectivity service provided by a UE-to-network relay, if the UE is authorised to perform the announcing UE procedure for UE-to-network relay discovery, then the UE:

a) if the UE is served by NG-RAN, and the UE in 5GMM-IDLE mode needs to request resources for sending PROSE PC5 DISCOVERY messages for relay discovery as specified in 3GPP TS 38.331 [13], shall perform a service request procedure or mobility registration procedure as specified in 3GPP TS 24.501 [11];

b) shall obtain a valid UTC time for the discovery transmission from the lower layers and generate the UTC-based counter corresponding to this UTC time as specified in clause 11.2.5;

c) shall generate a PROSE PC5 DISCOVERY message for UE-to-network relay discovery announcement according to clause 10.2.1. In the PROSE PC5 DISCOVERY message for UE-to-network relay discovery announcement, the UE:

1) shall set the announcer info parameter to the User info ID for the UE-to-network relay discovery parameter, as specified in clause 5.2.5;

2) shall set the relay service code parameter to the relay service code parameter identifying the connectivity service to be announced, as specified in clause 5.2.5;

3) shall set the UTC-based counter LSB parameter to include the eight least significant bits of the UTC-based counter;

4) shall set the Resource Status Indicator bit of the status indicator parameter to indicate whether or not the UE has resources available to provide a connectivity service for additional ProSe-enabled UEs;

5) shall set the ProSe direct discovery PC5 message type parameter as specified in table 10.2.1.8;

6) if acting as 5G ProSe layer-2 UE-to-network relay UE, shall set the NCGI parameter to the NCGI of its serving cell; and

7) if acting as 5G ProSe layer-2 UE-to-network relay UE, shall set the RRC container to the RRC container if provided by the lower layers;

d) shall apply the DUIK, DUSK, or DUCK with the associated Encrypted Bitmask, along with the UTC-based counter to the PROSE PC5 DISCOVERY message for whichever security mechanism(s) configured to be applied, e.g., integrity protection, message scrambling or confidentiality protection of one or more above parameters, as specified in 3GPP TS 33.503 [34];

e) shall set the destination layer-2 ID to the default destination layer-2 ID as specified in clause 5.2.5, and self-assign a source layer-2 ID for sending the UE-to-network relay discovery announcement; and

f) shall pass the resulting PROSE PC5 DISCOVERY message for UE-to-network relay discovery announcement to the lower layers for transmission over the PC5 interface with the source layer-2 ID, destination layer-2 ID, and an indication that the message is for 5G ProSe direct discovery.

The UE shall ensure that it keeps on passing the same PROSE PC5 DISCOVERY message along with the same source layer-2 ID, destination layer-2 ID, and an indication that the message is for 5G ProSe direct discovery to the lower layers for transmission until the UE is triggered by an upper layer application to stop announcing availability of a connectivity service provided by a UE-to-network relay, or until the UE stops being authorised to perform the announcing UE procedure for UE-to-network relay discovery. How this is achieved is left up to UE implementation.

Editor’s note: Details of security aspects of a PROSE PC5 DISCOVERY message for UE-to-network relay discovery announcement are FFS and will be determinated by cooperation with SA WG2 and SA WG3.

\* \* \* Next Change \* \* \* \*

###### 8.2.1.3.2.2 Discoveree UE procedure for UE-to-network relay discovery initiation

The UE is authorised to perform the discoveree UE procedure for UE-to-network relay discovery if:

a) the UE is authorised to act as a UE-to-network relay UE in the PLMN indicated by the serving cell, and

1) the UE is served by NG-RAN; or

2) the UE is not served by NG-RAN, and intends to use the provisioned radio resources for UE-to-network relay discovery;

b) the UE is configured with:

1) the relay service code parameter identifying the connectivity service to be responded to as specified in clause 5.2.5, and for 5G ProSe layer-3 UE-to-network relay UE,

i) the S-NSSAI associated with that relay service code shall belong to the allowed NSSAI of the UE; and

ii) if the UE is camped on a cell whose TAI is in the list of "non-allowed tracking areas" or is camped on a cell whose TAI is not in the list of "allowed tracking areas", then the relay service code shall be associated with an emergency service or high priority access as defined in clause 5.3.5 of 3GPP TS 24.501 [11]; and

2) the User info ID for the UE-to-network relay discovery parameter, as specified in clause 5.2.5; and

c) the back-off timer T3346 used for NAS mobility management congestion control as specified in clause 5.3.9 of 3GPP TS 24.501 [11] is not running at the UE;

otherwise, the UE is not authorised to perform the discoveree UE procedure for UE-to-network relay discovery.

Figure 8.2.1.3.2.2.1 illustrates the interaction of the UEs in the discoveree UE procedure for UE-to-network relay discovery.



Figure 8.2.1.3.2.2.1: Discoveree UE procedure for UE-to-network Relay discovery

When the UE is triggered by an upper layer application to start responding to solicitation on proximity of a connectivity service provided by the UE-to-network Relay, and if the UE is authorised to perform the discoveree UE procedure for UE-to-network Relay discovery, then the UE:

a) if the UE is served by NG-RAN, and the UE in 5GMM-IDLE mode needs to request resources for sending PROSE PC5 DISCOVERY messages as specified in 3GPP TS 38.331 [13], shall perform a service request procedure as specified in 3GPP TS 24.501 [11]; and

b) shall instruct the lower layers to start monitoring for PROSE PC5 DISCOVERY messages.

Upon reception of a PROSE PC5 DISCOVERY message for UE-to-network relay discovery solicitation, for the relay service code of the connectivity service which the UE is authorized to respond, the UE shall use the associated DUSK, if configured, and the UTC-based counter obtained during the reception operation to unscramble the PROSE PC5 DISCOVERY message as described in 3GPP TS 33.503 [34]. Then, if a DUCK is configured, the UE shall use the DUCK and the UTC-based counter to decrypt the configured message-specific confidentiality-protected portion, as described in 3GPP TS 33.503 [34]. Finally, if a DUIK is configured, the UE shall use the DUIK and the UTC-based counter to verify the MIC field in the unscrambled PROSE PC5 DISCOVERY message for UE-to-network relay discovery solicitation.

Editor’s note: Details of Discoverer UE procedure upon reception of a PROSE PC5 DISCOVERY message for direct discovery response are FFS and will be determinated by cooperation with SA WG3.

NOTE: The UE can determine the received PROSE PC5 DISCOVERY message for 5G ProSe direct discovery announcement is for 5G ProSe direct discovery based on an indication from the lower layer.

Then, if the relay service code parameter of the PROSE PC5 DISCOVERY message for UE-to-network relay discovery solicitation is the same as the relay service code parameter configured as specified in clause 5.2.5 for the connectivity service,

then the UE:

a) shall obtain a valid UTC time for the discovery transmission from the lower layers and generate the UTC-based counter corresponding to this UTC time;

b) shall generate a PROSE PC5 DISCOVERY message for UE-to-network relay discovery response. In the PROSE PC5 DISCOVERY message for UE-to-network relay discovery response, the UE:

1) shall set the Discoveree info parameter to the User info ID for the UE-to-network Relay discovery parameter, configured in clause 5.2.5;

2) shall set the relay service code parameter to the relay service code parameter of the PROSE PC5 DISCOVERY message for UE-to-network relay discovery solicitation;

3) shall set the UTC-based counter LSB parameter to include the eight least significant bits of the UTC-based counter;

4) shall set the ProSe direct discovery PC5 message type parameter as specified in table 10.2.1.10;

5) if acting as 5G ProSe layer-2 UE-to-network relay UE, shall set the NCGI parameter to the NCGI of its serving cell; and

6) if acting as 5G ProSe layer-2 UE-to-network relay UE, shall set the RRC container to the RRC container if provided by the lower layers;

c) shall apply the DUIK, DUSK, or DUCK with the associated Encrypted Bitmask, along with the UTC-based counter to the PROSE PC5 DISCOVERY message for whichever security mechanism(s) configured to be applied, e.g., integrity protection, message scrambling or confidentiality protection of one or more above parameters, as specified in 3GPP TS 33.503 [34];

Editor’s note: Details of security related content in c) are FFS and will be determinated by SA3.

d) shall set the destination layer-2 ID to the source layer-2 ID from the discoverer UE used in the transportation of the PROSE PC5 DISCOVERY message for UE-to-network relay discovery solicitation, and self-assign a source layer-2 ID for sending the UE-to-network relay discovery response message; and

e) shall pass the resulting PROSE PC5 DISCOVERY message for UE-to-network relay discovery response along with the source layer-2 ID, destination layer-2 ID, and an indication that the message is for 5G ProSe direct discovery to the lower layers for transmission over the PC5 interface.

\* \* \* Next Change \* \* \* \*

### 10.2.1 Message definition

This message is sent by the UE over the PC5 interface for open 5G ProSe direct discovery and restricted 5G ProSe direct discovery. See table 10.2.1.1, table 10.2.1.2, table 10.2.1.3, table 10.2.1.4, table 10.2.1.5, table 10.2.1.6, table 10.2.1.7, table 10.2.1.8, table 10.2.1.9, table 10.2.1.10 and table 10.2.1.11.

Message type: PROSE PC5 DISCOVERY

Significance: dual

Direction: UE to peer UE

Editor's note: Whether Metadata IE and all other optional IEs are subject to security protection is FFS and depends on SA3 requirements.

Table 10.2.1.1: PROSE PC5 DISCOVERY message content for open 5G ProSe direct discovery announcement

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| IEI | Information Element | Type/Reference | Presence | Format | Length |
|  | ProSe direct discovery PC5 message type (NOTE) | ProSe direct discovery PC5 message type  11.2.1 | M | V | 1 |
|  | ProSe application code | ProSe application code  11.2.2 | M | V | 23 |
|  | MIC | MIC  11.2.4 | M | V | 4 |
|  | UTC-based counter LSB | UTC-based counter LSB  11.2.14 | M | V | 1 |
| 7A | Metadata | Metadata  11.2.13 | O | TLV-E | 4-8195 |
| NOTE: The discovery type is set to "Open discovery" and the content type is set to "Announcement". | | | | | |

Table 10.2.1.2: PROSE PC5 DISCOVERY message content for restricted 5G ProSe direct discovery announcement

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| IEI | Information Element | Type/Reference | Presence | Format | Length |
|  | ProSe direct discovery PC5 message type (NOTE) | ProSe direct discovery PC5 message type  11.2.1 | M | V | 1 |
|  | ProSe restricted code | ProSe restricted code  11.2.3 | M | V | 23 |
|  | MIC | MIC  11.2.4 | M | V | 4 |
|  | UTC-based counter LSB | UTC-based counter LSB  11.2.14 | M | V | 1 |
| 7A | Metadata | Metadata  11.2.13 | O | TLV-E | 4-8195 |
| NOTE: The discovery type is set to "Restricted discovery" and the content type is set to "Announcement". | | | | | |

Table 10.2.1.3: PROSE PC5 DISCOVERY message content for restricted 5G ProSe direct discovery solicitation

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| IEI | Information Element | Type/Reference | Presence | Format | Length |
|  | ProSe direct discovery PC5 message type (NOTE) | ProSe direct discovery PC5 message type  11.2.1 | M | V | 1 |
|  | ProSe query code | ProSe restricted code  11.2.3 | M | V | 23 |
|  | MIC | MIC  11.2.4 | M | V | 4 |
|  | UTC-based counter LSB | UTC-based counter LSB  11.2.14 | M | V | 1 |
| NOTE: The discovery type is set to "Restricted discovery" and the content type is set to "Solicitation". | | | | | |

Table 10.2.1.4: PROSE PC5 DISCOVERY message content for restricted 5G ProSe direct discovery response

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| IEI | Information Element | Type/Reference | Presence | Format | Length |
|  | ProSe direct discovery PC5 message type (NOTE) | ProSe direct discovery PC5 message type  11.2.1 | M | V | 1 |
|  | ProSe response code | ProSe restricted code  11.2.3 | M | V | 23 |
|  | MIC | MIC  11.2.4 | M | V | 4 |
|  | UTC-based counter LSB | UTC-based counter LSB  11.2.14 | M | V | 1 |
| 7A | Metadata | Metadata  11.2.13 | O | TLV-E | 4-8195 |
| NOTE: The discovery type is set to "Restricted discovery" and the content type is set to "response". | | | | | |

Table 10.2.1.5: PROSE PC5 DISCOVERY message for group member discovery announcement

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| IEI | Information Element | Type/Reference | Presence | Format | Length |
|  | ProSe direct discovery PC5 message type (NOTE) | ProSe direct discovery PC5 message type  11.2.1 | M | V | 1 |
|  | Application layer group ID | Application layer group ID  11.2.6 | M | LV | 2-257 |
|  | Announcer info | User info ID  11.2.7 | M | V | 6 |
|  | MIC | MIC  11.2.4 | M | V | 4 |
|  | UTC-based counter LSB | UTC-based counter LSB  11.2.14 | M | V | 1 |
| 7A | Metadata | Metadata  11.2.13 | O | TLV-E | 4-8195 |
| NOTE: The discovery type is set to "Restricted discovery", the content type is set to "Group member discovery announcement/group member discovery response" and the discovery model is set to "Model A". | | | | | |

Table 10.2.1.6: PROSE PC5 DISCOVERY message for group member discovery solicitation

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| IEI | Information Element | Type/Reference | Presence | Format | Length |
|  | ProSe direct discovery PC5 message type (NOTE) | ProSe direct discovery PC5 message type  11.2.1 | M | V | 1 |
|  | Application layer group ID | Application layer group ID  11.2.6 | M | LV | 2-256 |
|  | Discoverer info | User info ID  11.2.7 | M | V | 6 |
|  | MIC | MIC  11.2.4 | M | V | 4 |
|  | UTC-based counter LSB | UTC-based counter LSB  11.2.14 | M | V | 1 |
| 28 | Target user info | User info ID  11.2.7 | O | TV | 7 |
| NOTE: The discovery type is set to "Restricted discovery", the content type is set to "Group member discovery solicitation" and the discovery model is set to "Model B". | | | | | |

Table 10.2.1.7: PROSE PC5 DISCOVERY message for group member discovery response

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| IEI | Information Element | Type/Reference | Presence | Format | Length |
|  | ProSe direct discovery PC5 message type (NOTE) | ProSe direct discovery PC5 message type  11.2.1 | M | V | 1 |
|  | Application layer group ID | Application layer group ID  11.2.6 | M | LV | 2-256 |
|  | Discoveree info | User info ID  11.2.7 | M | V | 6 |
|  | MIC | MIC  11.2.4 | M | V | 4 |
|  | UTC-based counter LSB | UTC-based counter LSB  11.2.14 | M | V | 1 |
| 7A | Metadata | Metadata  11.2.13 | O | TLV-E | 4-8195 |
| NOTE: The discovery type is set to "Restricted discovery", the content type is set to "Group member discovery announcement/group member discovery response" and the discovery model is set to "Model B". | | | | | |

Table 10.2.1.8: PROSE PC5 DISCOVERY message for UE-to-network relay discovery announcement

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| IEI | Information Element | Type/Reference | Presence | Format | Length |
|  | ProSe direct discovery PC5 message type (NOTE 1) | ProSe direct discovery PC5 message type  11.2.1 | M | V | 1 |
|  | Announcer info | User info ID  11.2.7 | M | V | 6 |
|  | Relay service code (NOTE 2) | Relay service code  11.2.8 | M | V | 3 |
|  | Status indicator | Status indicator  11.2.9 | M | V | 1 |
|  | MIC | MIC  11.2.4 | M | V | 4 |
|  | UTC-based counter LSB | UTC-based counter LSB  11.2.11 | M | V | 1 |
| 52 | NCGI | NCGI  11.2.12 | O | TV | 9 |
| xy | RRC container | RRC container  11.2.z | O | TLV | 3-257 |
| NOTE 1: The discovery type is set to "Restricted discovery", the content type is set to "UE-to-network relay discovery announcement/UE-to-network relay discovery response" and the discovery model is set to "Model A".  NOTE 2: If the announcing UE works as a 5G ProSe Layer-3 UE-to-network relay UE, the S-NSSAI associated with the relay service code belongs to the allowed NSSAI of the UE. | | | | | |

Table 10.2.1.9: PROSE PC5 DISCOVERY message for UE-to-network relay discovery solicitation

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| IEI | Information Element | Type/Reference | Presence | Format | Length |
|  | ProSe direct discovery PC5 message type (NOTE) | ProSe direct discovery PC5 message type  11.2.1 | M | V | 1 |
|  | Discoverer info | User info ID  11.2.7 | M | V | 6 |
|  | Relay service code | Relay service code  11.2.8 | M | V | 3 |
|  | MIC | MIC  11.2.4 | M | V | 4 |
|  | UTC-based counter LSB | UTC-based counter LSB  11.2.11 | M | V | 1 |
| NOTE: The discovery type is set to "Restricted discovery", the content type is set to "UE-to-network relay discovery solicitation" and the discovery model is set to "Model B". | | | | | |

Table 10.2.1.10: PROSE PC5 DISCOVERY message for UE-to-network relay discovery response

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| IEI | Information Element | Type/Reference | Presence | Format | Length |
|  | ProSe direct discovery PC5 message type (NOTE 1) | ProSe direct discovery PC5 message type  11.2.1 | M | V | 1 |
|  | Discoveree info | User info ID  11.2.7 | M | V | 6 |
|  | Relay service code (NOTE 2) | Relay service code  11.2.8 | M | V | 3 |
|  | Status indicator | Status indicator  11.2.9 | M | V | 1 |
|  | MIC | MIC  11.2.4 | M | V | 4 |
|  | UTC-based counter LSB | UTC-based counter LSB  11.2.11 | M | V | 1 |
| 52 | NCGI | NCGI  11.2.12 | O | TV | 9 |
| xy | RRC container | RRC container  11.2.z | O | TLV | 3-257 |
| NOTE 1: The discovery type is set to "Restricted discovery", the content type is set to "UE-to-network relay discovery announcement/UE-to-network relay discovery response" and the discovery model is set to "Model B".  NOTE 2: If the discoveree UE works as a 5G ProSe Layer-3 UE-to-network relay UE, the S-NSSAI associated with the relay service code belongs to the allowed NSSAI of the UE. | | | | | |

Table 10.2.1.11: PROSE PC5 DISCOVERY message for relay discovery additional information

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| IEI | Information Element | Type/Reference | Presence | Format | Length |
|  | ProSe direct discovery PC5 message type (NOTE) | ProSe direct discovery PC5 message type  11.2.1 | M | V | 1 |
|  | Relay service code | Relay service code  11.2.8 | M | V | 3 |
|  | Announcer info | User info ID  11.2.7 | M | V | 1 |
|  | MIC | MIC  11.2.4 | M | V | 4 |
|  | UTC-based counter LSB | UTC-based counter LSB  11.2.11 | M | V | 1 |
| 52 | NCGI | NCGI  11.2.12 | O | TV | 9 |
| 51 | Relay TAI | TAI  11.2.10 | O | TV | 4 |
| NOTE: The discovery type is set to "Restricted discovery", the content type is set to "Relay discovery additional information" and the discovery model is set to "Model A". | | | | | |

\* \* \* Next Change \* \* \* \*

### 10.2.a RRC container

The RRC container information element shall be included in:

a) PROSE PC5 DISCOVERY message for UE-to-network relay discovery announcement as in table 10.2.1.8; or

b) PROSE PC5 DISCOVERY message for UE-to-network relay discovery response as in table 10.2.1.10;

to indicate the RRC container information if it is received from the lower layers and the UE acts as a 5G ProSe layer-2 UE-to-network relay UE.

\* \* \* Next Change \* \* \* \*

### 11.2.z RRC container

The RRC container information element is used to indicate the RRC container information received from the lower layers.The RRC container is a type 4 information element.

The RRC container information element is coded as shown in figure 11.2.z.1 and table 11.2.z.1.

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 | |  | |
| RRC container IEI | | | | | | | | | octet 1 | |
| Length of RRC container contents | | | | | | | | | octet 2 | |
| RRC container contents | | | | | | | | | octet 3 | |
| octet m | |

Figure 11.2.z.1: RRC container information element

Table 11.2.z.1: RRC container information element

|  |
| --- |
| The length of RRC container contents field contains the binary coded representation of the length of the RRC container contents field.  RRC container contents (octet 3 to m)  The RRC container contents field is coded as *SL-AccessInfo-L2U2N* in clause 9.x1 of 3GPP TS 38.331 [13]. |

\* \* \* End of Changes \* \* \* \*