**3GPP TSG-CT WG4 Meeting #105-eC4-214xyz**

**E-Meeting, 17th – 27th August 2021 (was C4-214339)**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| *CR-Form-v12.1* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **29.510** | **CR** | **0565** | **rev** | **1** | **Current version:** | **17.2.0** |  |
|  | | | | | | | | |
| *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)*.* | | | | | | | | |
|  | | | | | | | | |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| ***Proposed change affects:*** | UICC apps |  | ME |  | Radio Access Network |  | Core Network | **X** |

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | | | | | | | | | | |
| ***Title:*** | ScpInfo Data Type Definition | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | Ericsson, Mavenir | | | | | | | | | |
| ***Source to TSG:*** | CT4 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | SBIProtoc16 | | | | |  | ***Date:*** | | | 2021-07-19 |
|  |  | | | |  | |  | | |  |
| ***Category:*** | **A** |  | | | | | ***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:*** | | The "scpDomainInfoList" attribute of the "ScpInfo" data type definition is not correctly defined in OpenAPI.  "scpDomainInfoList" is an object (map), whose key-value pairs shall contain values who are objects of type ScpDomainInfo (see clause 6.1.6.2.65).  However, the current definition in OpenAPI contains an spare "**items:**" statement that does not correspond with the intended definition of the map values. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | Remove the spare "**items:**" statement. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Consequences if not approved:*** | | The OpenAPI definition is incorrect and does not correspond with the intended API definition as described in the rest of the TS. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | A.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 introduces backwards-compatible corrections with impacts on the following APIs:  - TS29510\_Nnrf\_NFManagement.yaml  - TS29510\_Nnrf\_NFDiscovery.yaml | | | | | | | | |
|  | |  | | | | | | | | |
| ***This CR's revision history:*** | |  | | | | | | | | |

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

## A.2 Nnrf\_NFManagement API

*(... text not shown for clarity ...)*

ScpInfo:

description: Information of an SCP Instance

type: object

properties:

scpDomainInfoList:

description: A map (list of key-value pairs) where the key of the map shall be the string identifying an SCP domain

type: object

additionalProperties:

$ref: '#/components/schemas/ScpDomainInfo'

minProperties: 1

scpPrefix:

type: string

scpPorts:

description: Port numbers for HTTP and HTTPS. The key of the map shall be "http" or "https"

type: object

additionalProperties:

type: integer

minimum: 0

maximum: 65535

minProperties: 1

addressDomains:

type: array

items:

type: string

minItems: 1

ipv4Addresses:

type: array

items:

$ref: 'TS29571\_CommonData.yaml#/components/schemas/Ipv4Addr'

minItems: 1

ipv6Prefixes:

type: array

items:

$ref: 'TS29571\_CommonData.yaml#/components/schemas/Ipv6Prefix'

minItems: 1

ipv4AddrRanges:

type: array

items:

$ref: '#/components/schemas/Ipv4AddressRange'

minItems: 1

ipv6PrefixRanges:

type: array

items:

$ref: '#/components/schemas/Ipv6PrefixRange'

minItems: 1

servedNfSetIdList:

type: array

items:

$ref: 'TS29571\_CommonData.yaml#/components/schemas/NfSetId'

minItems: 1

remotePlmnList:

type: array

items:

$ref: 'TS29571\_CommonData.yaml#/components/schemas/PlmnId'

minItems: 1

ipReachability:

$ref: '#/components/schemas/IpReachability'

scpCapabilities:

type: array

items:

$ref: '#/components/schemas/ScpCapability'

*(... text not shown for clarity ...)*

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

\* \* \* For Information \* \* \* \*

##### 6.1.6.2.65 Type: ScpInfo

Table 6.1.6.2.65-1: Definition of type ScpInfo

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Attribute name | Data type | P | Cardinality | Description |
| scpDomainInfoList | map(ScpDomainInfo) | O | 1..N | SCP domain specific information of the SCP that differs from the common information in NFProfile data type. The key of the map shall be the string identifying an SCP domain. |
| scpPrefix | string | O | 0..1 | Optional deployment specific string used to construct the apiRoot of the next hop SCP, as described in clause 6.10 of 3GPP TS 29.500 [4]. |
| scpPorts | map(integer) | C | 1..N | SCP port number(s) for HTTP and/or HTTPS  (NOTE 1)  This attribute shall be present if the SCP uses non-default HTTP and/or HTTPS ports and if the SCP does not provision port information within ScpDomainInfo for each SCP domain it belongs to.  When present, it shall contain the HTTP and/or HTTPS ports.  The key of the map shall be "http" or "https".  The value shall indicate the port number for HTTP or HTTPS respectively.  Minimum: 0 Maximum: 65535 |
| addressDomains | array(string) | O | 1..N | Pattern (regular expression according to the ECMA-262 dialect [8]) representing the address domain names reachable through the SCP.  Absence of this IE indicates the SCP can reach any address domain names in the SCP domain(s) it belongs to. |
| ipv4Addresses | array(Ipv4Addr) | O | 1..N | List of IPv4 addresses reachable through the SCP.  This IE may be present if IPv4 addresses are reachable via the SCP.  If IPv4 addresses are reachable via the SCP, absence of both this IE and ipv4AddrRanges IE indicates the SCP can reach any IPv4 addresses in the SCP domain(s) it belongs to. |
| ipv6Prefixes | array(Ipv6Prefix) | O | 1..N | List of IPv6 prefixes reachable through the SCP.  This IE may be present if IPv6 addresses are reachable via the SCP.  If IPv6 addresses are reachable via the SCP, absence of both this IE and ipv6PrefixRanges IE indicates the SCP can reach any IPv6 prefixes in the SCP domain(s) it belongs to. |
| ipv4AddrRanges | array(Ipv4AddressRange) | O | 1..N | List of IPv4 addresses ranges reachable through the SCP.  This IE may be present if IPv4 addresses are reachable via the SCP.  If IPv4 addresses are reachable via the SCP, absence of both this IE and ipv4Addresses IE indicates the SCP can reach any IPv4 addresses in the SCP domain(s) it belongs to. |
| ipv6PrefixRanges | array(Ipv6PrefixRange) | O | 1..N | List of IPv6 prefixes ranges reachable through the SCP.  This IE may be present if IPv6 addresses are reachable via the SCP.  If IPv6 addresses are reachable via the SCP, absence of both this IE and ipv6Prefixes IE indicates the SCP can reach any IPv6 prefixes in the SCP domain(s) it belongs to. |
| servedNfSetIdList | array(NfSetId) | O | 1..N | List of NF set ID of NFs served by the SCP.  Absence of this IE indicates the SCP can reach any NF set in the SCP domain(s) it belongs to. |
| remotePlmnList | array(PlmnId) | O | 1..N | List of remote PLMNs reachable through the SCP.  Absence of this IE indicates that no remote PLMN is reachable through the SCP. |
| ipReachability | IpReachability | O | 0..1 | This IE may be present to indicate the type(s) of IP addresses reachable via the SCP in the SCP domain(s) it belongs to.  Absence of this IE indicates that the SCP can be used to reach both IPv4 addresses and IPv6 addresses in the SCP domain(s) it belongs to. |
| scpCapabilities | array(ScpCapability) | C | 0..N | List of SCP capabilities supported by the SCP.  This IE shall be present if the SCP supports at least one SCP capability. It may be present otherwise, with an empty array, to indicate that the SCP does not support any capability of the ScpCapability data type. The absence of this attribute shall not be interpreted as an SCP that does not support any capability; this only means that the SCP (e.g. pre-Rel-17 SCP) did not register the capabilities it may support.  (NOTE 2) |
| NOTE 1: If no SCP port information is present in ScpInfo or in ScpDomainInfo for a specific SCP domain, the HTTP client shall use the default HTTP port number, i.e. TCP port 80 for "http" URIs or TCP port 443 for "https" URIs as specified in IETF RFC 7540 [9] when sending a request to the SCP within the specific SCP domain.  NOTE 2: This IE may be used by another SCP (e.g. SCP-c) to determine whether next hops' SCP(s) (e.g. SCP-p) supports Indirect Communication with Delegated Discovery, e.g. in scenarios with more than one SCP between an NF service consumer and NF service producer. This information is not intended for NF service consumers. This information shall not be used for selecting a next hop SCP. It may only be used by an SCP, once a next hop SCP is selected, to learn the capabilities of the selected SCP, and based on local policy, to determine whether to delegate the selection of the target NF service producer instance to the next hop SCP or not. | | | | |