Access Restriction Support on S6d Interface

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Feature Summary and Revision History

Summary Data

Applicable Product(s) or Functional Area	SGSN
Applicable Platform(s)	• ASR 5000 • ASR 5500 • VPC-DI • VPC-SI
Feature Default	Disabled - Configuration Required
Related Changes in This Release	Not applicable
Related Documentation	SGSN Administration Guide

Revision History

Revision Details	Release
First introduced.	21.12

Feature Changes

The SGSN supports the below parameters added in the Update Location Request/Answer and Insert Subscriber Data Request/Answer messages on S6d interface:

- SGSN advertises the DCNR feature support by setting the 'NR as Secondary RAT feature bit' in Supported Features list 2 towards HSS if the DCNR feature is configured at SGSN and UE advertises DCNR capability in NAS

- SGSN also handles the new bit 'NR as Secondary RAT Not Allowed' in the Access-Restriction-Data bitmask sent by HSS to control if the subscriber is allowed to access NR via dual connectivity

- SGSN handles the Extended Bandwidth UL/DL parameters under AMBR sent by HSS

Gateway selection is improved to avoid SGSN from falling back and triggering an "A" query to get the normal GGSN information.

Previous Behavior: The SGSN sends a SNAPTR query for gateway resolution and selection when DCNR feature is enabled. If the SGSN does not find a collocated PGW/GGSN with "+nc-nr" capability in DNS response(x-3gpp-pgw:x-gn+nc-nr/ x-3gpp-pgw:x-gp+nc-nr), the SGSN will fall back and triggers a "A" query to get the normal GGSN information.

New Behavior: When no collocated PGW/GGSN with "+nc-nr" capability is found in DNS response, the SGSN will select the next collocated PGW/GGSN node. If "3gpp-pgw:x-gn+nc-nr/ x-3gpp-pgw:x-gp+nc-nr" is not present in DNS response, the SGSN will select "3gpp-pgw:x-gn / x-3gpp-pgw:x-gp" instead of triggering another to "A" query to get the GGSN information. "UP Function Selection Indication Flags" IE in Create PDP Context Request message will be set to "1" only when "+nc-nr" capable gateway is selected.