



Dynamic S-GW Selection for Interworking-5GC

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Feature Summary and Revision History

Summary Data

Applicable Product(s) or Functional Area	MME
Applicable Platform(s)	<ul style="list-style-type: none"> • ASR 5500 • VPC-DI • VPC-SI
Feature Default	<ul style="list-style-type: none"> • Disabled - Configuration Required
Related Changes in This Release	Not Applicable
Related Documentation	<ul style="list-style-type: none"> • <i>Command Line Interface Reference</i> • <i>MME Administration Guide</i>

Revision History

Revision Details	Release
Support is introduced for dynamic selection mechanism to select SGW-C+SMF through s11 interface.	21.28.m7
Support is introduced for dynamic selection mechanism to select PGW-C+SMF and peer-AMF.	21.25
The N26 interface for interworking with 5GS functionality is fully qualified in this release.	21.20.3

Revision Details	Release
<p>MME supports N26 interface between AMF in 5GC and MME in Evolved Packet Core (EPC) to provide seamless session continuity for single registration mode UE.</p> <p>Important This feature is not fully qualified in this release, and is available only for testing purposes. For more information, contact your Cisco Account Representative.</p>	21.20
<p>First introduced.</p> <p>This release supports N26 Interface for interworking with 5GS functionality.</p> <p>Important This feature is not fully qualified in this release, and is available only for testing purposes. For more information, contact your Cisco Account Representative.</p>	21.19

Feature Description

MME supports selection of combined SGW-C/SMF on the base of DNS S-NAPTR queries using the **3gpp-x-3gpp-sgw:x-s11** service parameter for UEs supporting N1 mode and optionally matching an UE Usage type.

DNS Mechanism to Select SGW-C+SMF

MME supports the SGW-C+SMF selection for Nonemergency PDN connection based on the following conditions:

- UE N1 Mode capability (UE Network Capability)
- (Optional) Matching a UE Usage type

S-NAPTR query is performed to identify the SGW-C+SMF based on the below S-NAPTR procedure with service parameters:

- MME considers the **n1-mode 5gs-interworking-with-n26 sgw-selection s11** CLI when forming the service parameter in the SGW-C+SMF DNS S-NAPTR requests.

If the UE is in N1 mode and CLI is configured with S11 and no UE usage type is specified, then, MME sends the DNS S-NAPTR query using the x-3gpp-sgw:x-s11 service parameter to select the SGW-C+SMF.
- If UE is in N1 mode and CLI is configured with S11 and UUT, MME matches the UE's UUT with CLI UUTs. Then MME, sends DNS S-NAPTR query using the x-3gpp-sgw:x-s11 service parameter. Else, sends the DNS S-NAPTR query using the **x-3gpp-sgw:x-s11** service parameter to select the S-GW.

```
Example: n1-mode 5gs-interworking-with-n26 sgw-selection s11 ue-usage-type 128 129 130
131 132 133 134 135
```

The S-NAPTR procedure logically displays a list of host names each with a service, protocol, port, and a list of IPv4 and IPv6 addresses. From the candidate list, MME selects the best node based on the Topology, Collocation, Order, or Weight.

For more information, see the *5GS Interworking using N26 Interface Support* chapter in the *MME Configuration and Administration Guide*.