3GPP Specification Compliance for NRF Interfaces

This chapter covers the following topics:

Feature Summary and Revision History

Summary Data

Table 1: Summary Data

Applicable Product(s) or Functional Area	5G-NRF
Applicable Platform(s)	SMI
Default Setting	Enabled – Always-on
Related Changes in this Release	Not Applicable
Related Documentation	Not Applicable

Revision History

Table 2: Revision History

Revision Details	Release
First introduced.	2026.01

Feature Description

The NRF currently supports the June 2019 compliance version of 3GPP specification for the Nnrf interface. The NRF processes the messages from the Nnrf interface as per the compliance profile configured for the corresponding services. For information on the compliance profile configurations, see the Configuring Interfaces, on page 2 section.

Standards Compliance

The NRF uses the Nnrf interface to communicate with the other NFs or nodes.

Use the following table to determine the compliance mapping of the Nnrf interface and the 3GPP Standards specification version.

Interface	Relationship	3GPP Specification	Version
Nnrf	Between NRF and other NFs, for example, AMF, PCF, SMF, and so on.	*29.510*	For June 2019 Compliance Support: 15.4.0

Configuring Interfaces

Use the following commands to configure the NRF interfaces in compliance with the 3GPP specifications.

```
config
   instance instance-id instance_id
      endpoint sbi
         replicas integer
         nodes integer
         instancetype { IPv4 | IPv6 } <IPv4_address | IPv6_address>
            {vip-ip | vip-ipv6}  ip_address
               interface mgmt
                  loopbackPortport_number
                  api-root root
               exit
               interface disc
                  loopbackPortport_number
                  api-root root
               exit
      exit
```

Note

- **instance instance-id** *instance_id*: Specifies the GR instance specific configurations.
- **endpoint sbi**: Specifies the service-based interface (sbi) as the endpoint.
- **replicas**: Specifies the number of instances of the service-based interface. This parameter is optional.
- **nodes**: Specifies the number of nodes of the service-based interface. This parameter is optional.
- **instancetype { IPv4 | IPv6 }** *IPv4_address* | *IPv6_address*: Specifies the local interface type for the NRF REST endpoint.
- **{vip-ip | vip-ipv6}** *ip_address*: Specifies the virtual IP address of the virtual host. The NRF uses this as the listening IP address for the status notification.
- **loopbackPort** *port_number*: Specifies the internal port number of the loopback host. The NRF uses this port for the NF status notification. By default, the port number 8094 is used for management services and 8095 for discovery services.

Sample Configuration

The following is a sample output of the IPv4 interface configuration:

```
endpoint sbi
 replicas 2
 nodes    2
 vip-ip 209.165.200.225
 interface mgmt
  loopbackPort 8094
  api-root     root
 exit
 interface disc
  loopbackPort 8095
  api-root     root
 exit
exit
```

The following example configuration shows how to configure IPv6 on both the management and discovery services:

```
instance instance-id 1
 endpoint service
  replicas 1
  nodes    1
 exit
 endpoint sbi
  replicas     1
  nodes        1
  instancetype IPv6
  vip-ipv6 1111::10:1:6:34
  interface mgmt
   api-root     root
  exit
  interface disc
   api-root     root
  exit
```

```
 exit
exit
```