



Configure the 3gpp-Sbi-Target-apiRoot header for NF management interactions

Enables SMF to send a custom API root header to the NRF for network function management operations. Operators use this task when their 5G deployment requires explicit control over which API root the SMF communicates with for NRF services.

Before you begin

- Obtain the correct API root URI required by your deployment.
- Ensure access to the SMF configuration interface (CLI or configuration file).

Procedure

Step 1 Enter the NRF message-handling profile configuration mode.

```
profile message-handling nf-type nf_type { mh-profile mh_profile_name { service name type service_name_type } }
```

Example:

```
profile message-handling nf-type nrf
  mh-profile MHNRF
  service name type nnrf-nfm
```

Step 2 Specify the 3gpp-Sbi-Target-apiRoot header for each message type.

- For registration:

```
message type nf-register { header 3gpp-sbi-target-apiroot api_root_uri }
```

- For deregistration:

```
message type nf-deregister { header 3gpp-sbi-target-apiroot api_root_uri }
```

- For update:

```
message type nf-update { header 3gpp-sbi-target-apiroot api_root_uri }
```

- To subscribe:

```
message type nf-status-subscribe { header 3gpp-sbi-target-apiroot api_root_uri }
```

- To unsubscribe:

```
message type nf-status-unsubscribe { header 3gpp-sbi-target-apiroot api_root_uri }
```

Example:

```
(config-nnrf-nfm) # message type nf-register
(config-nf-register) # header 3gpp-sbi-target-apiroot https://nrf.example.com/api
(config-nf-register) # exit

(config-nnrf-nfm) # message type nf-deregister
(config-nf-deregister) # header 3gpp-sbi-target-apiroot https://nrf.example.com/api
(config-nf-deregister) # exit

(config-nnrf-nfm) # message type nf-update
(config-nf-update) # header 3gpp-sbi-target-apiroot https://nrf.example.com/api
(config-nf-update) # exit

(config-nnrf-nfm) # message type nf-status-subscribe
(config-nf-status-subscribe) # header 3gpp-sbi-target-apiroot https://nrf.example.com/api
(config-nf-status-subscribe) # exit

(config-nnrf-nfm) # message type nf-status-unsubscribe
(config-nf-status-unsubscribe) # header 3gpp-sbi-target-apiroot https://nrf.example.com/api
(config-nf-status-unsubscribe) # exit
```

Step 3 Enter the NF management group configuration to associate message-handling profile with group nf-mgmt.

```
group nf-mgmt group_nf_mgmt_name { nrf-mgmt-group nrf_nfmgmt_grp | locality locality_name | heartbeat interval
heartbeat_interval message-handling-profile message-handling-profile_name | failure-handling-profile
failure_handling_profile_name
```

Example:

```
group nf-mgmt NFMGMT1
nrf-mgmt-group          nrf-nfmgmt-grp
locality                LOC1
heartbeat interval 50
message-handling-profile MHNRF
failure-handling-profile FHNRF
exit
```

Step 4 Save and commit the configuration.

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Configure the 3gpp-Sbi-Target-apiRoot header for NF discovery interactions

This configuration enables SMF to send a custom API root header to the NRF for network function discovery operation. Operators use this task when their 5G deployment requires explicit control over which API root the SMF communicates with for NRF services.

Procedure

Step 1 Enter the NRF message-handling profile configuration mode.

```
profile message-handling nf-type nf_type { mh-profile mh_profile { service name type service name type } }
```

Example:

```
config
(config)# profile message-handling nf-type nrf
(config-msg-handling-nrf)# mh-profile MHNRFDISC
(config-msg-handling-MHNRFDISC)# service name type nrf-nfd
```

Step 2 Specify the 3gpp-Sbi-Target-apiRoot header for the discovery message type.

```
message type message_type { header 3gpp-sbi-target-apiroot api-root-uri }
```

Example:

```
(config-nrf-disc)# message type nf-discover
(config-DiscoverNF)# header 3gpp-sbi-target-apiroot https://nrf.example.com/api
(config-DiscoverNF)# exit
```

Step 3 Enter the NRF discovery group configuration mode to associate `message-handling profile` with `group nrf discovery`.

```
group nrf discovery nrf_discovery_group { service type nrf service_type { failure-handling-profile failure_handling_profile | message-handling-profile message_handling_profile } }
```

Example:

```
config
(config)# group nrf discovery nfdiscovery
(config-nrf-discovery-nfdiscovery)# service type nrf nrf-disc
(config-nrf-discovery-nfdiscovery)# failure-handling-profile FHDISC
(config-nrf-discovery-nfdiscovery)# message-handling-profile MHNRFDISC
(config-nrf-discovery-nfdiscovery)# exit
```

Step 4 Save and commit the configuration.
