



# HeNB-GW Network Service Configuration Mode Commands



**Important** In Release 20, 21.0 and 21.1, HeNB-GW is not supported. Commands in this configuration mode must not be used in these releases. For more information, contact your Cisco account representative.

A new service "henbgw-network-service" is defined under the Context configuration mode in order to support HeNB-GW functionality. This service configuration controls the S1-MME interface functionality between HeNB-GW and MME node.

## Command Modes

Exec > Global Configuration > Context Configuration > HeNB-GW-Network Service Configuration

**configure** > **context** *context\_name* > **henbgw-network-service** *service\_name*

Entering the above command sequence results in the following prompt:

```
[context_name]host_name(config-henbgw-network-service) #
```



**Important** The commands or keywords/variables that are available are dependent on platform type, product version, and installed license(s).

- [anr-info-retrieval](#), on page 2
- [associate sctp-param-template](#), on page 2
- [default-paging-drx](#), on page 3
- [end](#), on page 4
- [exit](#), on page 4
- [logical-enb](#), on page 5
- [paging-rate-control](#), on page 6
- [public-warning-system](#), on page 7
- [pws](#), on page 7
- [slap-max-retransmissions](#), on page 8
- [slap-retransmission-timeout](#), on page 9

## anr-info-retrieval

This command enables the HeNB-GW to intercept and respond to the Automatic Neighbor Relation (ANR) related SON messages with the requested information.

---

**Product** HeNB-GW

---

**Privilege** Security Administrator, Administrator

---

**Command Modes** Exec > Global Configuration > Context Configuration > HeNBGW-Network Service Configuration

**configure** > **context** *context\_name* > **henbgw-network-service** *service\_name*

Entering the above command sequence results in the following prompt:

```
[context_name]host_name(config-henbgw-network-service) #
```

---

**Syntax Description** [ **no** | **default** ] **anr-info-retrieval**

**no**

Removes the ANR information retrieval related function from this HeNB-GW Network service configuration.

**default**

Sets/Restores the default value assigned for the ANR information retrieval related function from the configured HeNB-GW Network service.

---

**Usage Guidelines** Use this command to enable the ANR information retrieval function to the HeNB-GW Network Service.

### Example

Following command enables the ANR information retrieval function on a specific HeNB-GW Network service.

```
anr-info-retrieval
```

## associate sctp-param-template

Associates a previously configured SCTP Parameter Template to the this HeNB-GW Network service. A SCTP Parameter Template must be configured globally before using this configuration.

---

**Product** HeNB-GW

---

**Privilege** Security Administrator, Administrator

---

**Command Modes** Exec > Global Configuration > Context Configuration > HeNBGW-Access Service Configuration

**configure** > **context** *context\_name* > **henbgw-access-service** *service\_name*

Entering the above command sequence results in the following prompt:

```
[context_name]host_name(config-henbgw-access-service) #
```

**Syntax Description**

```
associate sctp-param-template template_name  
no associate sctp-param-template
```

**no**

Removes the associated SCTP Parameter Template from this HeNB-GW Network service configuration.

***template\_name***

Identifies the name of the pre-configured SCTP Parameter Template to associate with this HeNB-GW Network service.

*template\_name* is an alphanumeric string of 1 through 63 characters.

**Usage Guidelines**

Use this command to bind/associate a pre-configured SCTP Parameter Template to the this HeNB-GW Network service. The SCTP Parameter Template can be configured global mode. The associate configuration is used to establish associations with other helper services in general.

**Example**

Following command associates an SCTP Parameter Template named *sctp\_tmpl* with specific HeNB-GW Network service.

```
associate sctp-param-template sctp_tmpl
```

## default-paging-drx

This command is used to configure the Default paging DRX value that is sent to the MME(s) in the S1 SETUP request message.

**Product**

HeNB-GW

**Privilege**

Security Administrator, Administrator

**Command Modes**

Exec > Global Configuration > Context Configuration > HeNBGW-Network Service Configuration

```
configure > context context_name > henbgw-network-service service_name
```

Entering the above command sequence results in the following prompt:

```
[context_name]host_name(config-henbgw-network-service) #
```

**Syntax Description**

```
default-paging-drx { v128 | v256 | v32 | v64 }  
default default-paging-drx
```

**default**

Sets/Restores the default value assigned for Default-Paging-DRX for the configured HeNB-GW Network service.

**end****default-paging-drx { v128 | v256 | v32 | v64 }**

Any one of the following DRX values can be configured :

- v128: Designates use of Paging DRX v128.
- v256: Designates use of Paging DRX v256.
- v32: Designates use of Paging DRX v32.
- v64: Designates use of Paging DRX v64.

**Usage Guidelines**

Use this command to configure the Default Paging DRX value for this HeNB-GW Network service.

**Example**

Following command configures v256 as the Default Paging DRX value on a specific HeNB-GW Network service.

```
default-paging-drx v256
```

**end**

Exits the current configuration mode and returns to the Exec mode.

**Product**

All

**Privilege**

Security Administrator, Administrator

**Command Modes**

Exec > Global Configuration > Context Configuration > HeNBGW-Network Service Configuration  
**configure > context** *context\_name* > **henbgw-network-service** *service\_name*

Entering the above command sequence results in the following prompt:

```
[context_name]host_name(config-henbgw-network-service) #
```

**Syntax Description**

**end**

**Usage Guidelines**

Use this command to return to the Exec mode.

**exit**

Exits the current mode and returns to the parent configuration mode.

**Product**

All

**Privilege**

Security Administrator, Administrator

**Command Modes**

Exec > Global Configuration > Context Configuration > HeNBGW-Network Service Configuration  
**configure > context** *context\_name* > **henbgw-network-service** *service\_name*

Entering the above command sequence results in the following prompt:

```
[context_name]host_name(config-henbgw-network-service)#
```

---

**Syntax Description**    **exit**

---

**Usage Guidelines**    Use this command to return to the parent configuration mode.

## logical-enb

This command enables the configuration of one or more logical eNodeBs within the HeNB-GW.

---

**Product**    HeNB-GW

---

**Privilege**    Security Administrator, Administrator

---

**Command Modes**    Exec > Global Configuration > Context Configuration > HeNB-GW-Network Service Configuration

**configure > context** *context\_name* > **henbgw-network-service** *service\_name*

Entering the above command sequence results in the following prompt:

```
[context_name]host_name(config-henbgw-network-service)#
```

---

**Syntax Description**    **logical-enb global-enb-id plmn id mcc** *mcc\_val* **mnc** *mnc\_val* { **home-enb-id** *henb\_id* | **macro-enb-id** *menb\_id* [ **-noconfirm** ] }

**no logical-enb global-enb-id plmn id mcc** *mcc\_val* **mnc** *mnc\_val* { **home-enb-id** *henb\_id* | **macro-enb-id** *menb\_id* }

**no**

Removes the configured logical eNodeB from this HeNB-GW Network service configuration.

**mcc** *mcc\_val*

Identifies the mobile country code for the IMSI which must be entered between 100 and 999, as a string of size 3.

**mnc** *mnc\_val*

Identifies the Mobile Network Code which is a value between 00 and 999, as a string of size 2 to 3.

**home-enb-id** *henb\_id*

Identifies the Home eNodeB ID which is an integer from 1 to 268435455.

**macro-enb-id** *menb\_id*

Identifies the Macro eNodeB ID which is again an integer value between 1 and 1048575.

**-noconfirm**

Creates a new HeNB-GW network service without prompting for confirmation.

**Usage Guidelines**

Use this command for the configuration of one or more logical eNodeBs within the HeNB-GW. The Logical eNodeB configuration can be used to support load balancing within a pool of TAIs (i.e. Multiple logical eNodeBs can service calls connecting from a specific set of TAIs). It can also be used to create and support disjoint serving areas, that is each logical eNodeB will serve a different set of TAIs.

At least one logical eNodeB configuration is required to START an HeNB-GW Network service.

**Caution**

Deleting or modifying any of the parameters for a fully configured logical eNodeB is a disruptive operation. It will result in the termination of SCTP connections to MMEs from that logical eNodeB.

**Example**

Following command configures a logical eNodeB having Home eNodeB ID as 1000 on a specific HeNB-GW Network service.

```
logical-enb global-enb-id plmn id mcc 123 mnc 456 home-enb-id 1000
```

## paging-rate-control

This command is used to configure the Paging-Rate-Control which determines the maximum number of paging messages per second which an HeNB-GW can handle received from the MME(s).

**Product**

HeNB-GW

**Privilege**

Security Administrator, Administrator

**Command Modes**

Exec > Global Configuration > Context Configuration > HeNBGW-Network Service Configuration

**configure** > **context** *context\_name* > **henbgw-network-service** *service\_name*

Entering the above command sequence results in the following prompt:

```
[context_name]host_name(config-henbgw-network-service)#
```

**Syntax Description**

**paging-rate-control** *number\_of\_msg*  
**no paging-rate-control**

**no**

Removes the configured rate of paging messages from this HeNB-GW Network service configuration.

**number\_of\_msg**

Identifies the number of paging messages to be handled by the HeNBGW service per second. This number must be entered as an integer between 1 and 65535 ( min 1 and max 65535) .

**Usage Guidelines**

Use this command to configure the number of paging messages per second to be handled by this HeNB-GW Network service. MME ID configuration is required, because it is the same ID which HeNB-GW sends in response messages to HeNBs.

This parameter is not part of logical-enb configuration and therefore it would include paging messages received from all the MMEs to which this HeNB-GW is connected on the network side.




---

**Important** Paging messages exceeding the configured rate are dropped. Total Paging and Dropped Statistics is updated in the logs.

---

### Example

Following command configures 32770 as the number of paging messages per second to be handled on a specific HeNB-GW Network service.

```
paging-rate-control 32770
```

## public-warning-system

This command enables / disables the Public warning system.

---

### Product

HeNB-GW

---

### Privilege

Security Administrator, Administrator

---

### Command Modes

Exec > Global Configuration > Context Configuration > HeNBGW-Network Service Configuration

```
configure > context context_name > henbgw-network-service service_name
```

Entering the above command sequence results in the following prompt:

```
[context_name]host_name (config-henbgw-network-service) #
```

---

### Syntax Description

```
[ no ] public-warning-system
```

**no**

Disables the Public warning system.

---

### Usage Guidelines

Use this command to enable / disable the Public warning system.

### Example

Following command disables the Public warning system:

```
no public-warning-system
```

## pws

This command sets values for parameters related to public warning system feature.

---

**Product** HeNB-GW

---

**Privilege** Security Administrator, Administrator

---

**Command Modes** Exec > Global Configuration > Context Configuration > HeNB-GW-Network Service Configuration

**configure** > **context** *context\_name* > **henbgw-network-service** *service\_name*

Entering the above command sequence results in the following prompt:

```
[context_name]host_name(config-henbgw-network-service)#
```

---

**Syntax Description**

```
pws { kill-request-timeout kill_req_timeout_seconds |
restart-indication-timeout restart_ind_timeout_seconds |
warning-request-timeout warn_req_timeout_seconds }
default pws { kill-request-timeout | restart-indication-timeout |
warning-request-timeout }
```

**default**

Configures the default value to kill request timeout and warning request timeout of public warning system feature.

**kill-request-timeout** *kill\_req\_timeout\_seconds*

Configures the Kill Request timeout value in seconds.

*kill\_req\_timeout\_seconds* is an integer from 1 through 65535.

**restart-indication-timeout** *restart\_ind\_timeout\_seconds*

Configures Restart Indication timeout value in seconds.

*restart\_ind\_timeout\_seconds* is an integer from 1 through 65535.

**warning-request-timeout** *warn\_req\_timeout\_seconds*

Configures the Warning request timeout value in seconds.

*warn\_req\_timeout\_seconds* is an integer from 1 through 65535.

---

**Usage Guidelines**

Use this command to set the values for parameters related to public warning system feature for this HeNB-GW Network service.

**Example**

Following command configures the Warning request timeout value to 100 seconds.

```
pws warning-request-timeout 100
```

## s1ap-max-retransmissions

This command configures the number of times node level SIAP message is retransmitted towards MME.



<b>Product</b>	HeNB-GW
<b>Privilege</b>	Security Administrator, Administrator
<b>Command Modes</b>	Exec > Global Configuration > Context Configuration > HeNBGW-Network Service Configuration <b>configure &gt; context</b> <i>context_name</i> > <b>henbgw-network-service</b> <i>service_name</i> Entering the above command sequence results in the following prompt: <pre>[context_name]host_name(config-henbgw-network-service)#</pre>
<b>Syntax Description</b>	<b>s1ap-max-retransmissions</b> <i>number_of_retries</i> <b>default s1ap-max-retransmissions</b>
	<b>default</b> Configures the default number of S1AP retransmissions for this HeNB-GW Network service configuration. Default number of retransmissions is 4.
	<b>number_of_retries</b> Identifies the number of S1AP retransmissions to be configured. This number must be entered as an integer between 1 and 5.
<b>Usage Guidelines</b>	Use this command to configure the maximum number of Node level S1AP retransmissions for this HeNB-GW Network service.



**Caution** Configuring s1ap-max-retransmissions to 0 will disable the S1AP retransmission support.

### Example

Following command configures default (which is also 4) S1AP retransmission on a specific HeNB-GW Network service.

```
default s1ap-max-retransmissions
```

## s1ap-retransmission-timeout

This command configures the timeout interval to support Node Level S1AP retransmissions if there is no response received from the peer (MME).

<b>Product</b>	HeNB-GW
<b>Privilege</b>	Security Administrator, Administrator
<b>Command Modes</b>	Exec > Global Configuration > Context Configuration > HeNBGW-Network Service Configuration <b>configure &gt; context</b> <i>context_name</i> > <b>henbgw-network-service</b> <i>service_name</i>

Entering the above command sequence results in the following prompt:

```
[context_name]host_name(config-henbgw-network-service) #
```

---

**Syntax Description**

```
slap-retransmission-timeout number_of_secs  
default slap-retransmission-timeout
```

**default**

Configures the default S1AP retransmission timeout for this HeNB-GW Network service configuration. Default retransmission timeout is 60 seconds.

***number\_of\_secs***

Identifies the number seconds as the S1AP retransmission timeout to be configured. This number must be entered as an integer between 1 and 600.

---

**Usage Guidelines**

Use this command to configure the timeout interval to support Node Level Slap retransmissions for this HeNB-GW Network service.

**Example**

Following command configures 100 as the S1AP retransmission timeout on a specific HeNB-GW Network service.

```
slap-retransmission-timeout 100
```