



Ultra Cloud Core 5G Access and Mobility Management Function CLI Command Reference, Release 2025.03

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CONTENTS

PREFACE

About this Guide	xix
Conventions Used	xix
Contacting Customer Support	xx

CHAPTER 1

AMF Command Reference	1
aaa	12
amf-global	13
amf-global call-control-policy	14
amf-global call-control-policy eir-check	24
amf-global dnn-policy	25
amf-global dnn-policy network-element-profile-list	26
amf-global location lmf-positioning	27
amf-global nf-profile	28
amf-global nf-profile nf-type-profile	29
amf-global nf-profile nf-type-profile grpc-endpoint	30
amf-global nf-profile nf-type-profile http-endpoint	31
amf-global operator-policy	32
amf-global operator-policy network-element-profile-list	33
amf-global paging-algo	35
amf-global paging-map	36
amf-global paging-map precedence	37
amf-global paging-profile	39
amf-global paging-profile paging-stage	40
amf-global plmn-policy	41
amf-global supi-policy	42
amf-global timers proc-timeout ue-registration	43

amf-services	44
amf-services api-root	48
amf-services nssai	49
amf-services pgw	50
amf-services relative-amf-capacity	51
amf-services stateless-proto-ep	52
amf-services tai-groups	53
apn-groups	54
apn-groups apns	55
apn-profiles	56
cd	57
cdl clear sessions	58
cdl kafka	59
cdl show sessions	60
cdl show status	62
clear subscriber	63
clear subscriber	64
clear subscriber clear-opt ran-opt	65
client http header	66
client http ping	67
client inbound interface	68
client inbound interface limit overload	69
client inbound interface limit pending	70
client inbound limit overload	71
client inbound limit pending	72
client outbound host ping	73
client outbound interface	74
client outbound interface host ping	75
client outbound interface limit consecutive failure	76
client outbound interface limit pending	77
client outbound limit consecutive failure	78
client outbound limit pending	79
commit	80
compare	81

config	82
config-error info	83
coverage	84
datastore dbs	85
datastore dbs endpoints	86
datastore notification-ep	87
datastore session-db	88
datastore session-db endpoints	89
debug-settings amf-ngap-ep	90
debug-settings amf-rest-ep	91
debug-settings amf-sctp-lb	92
debug-settings amf-service	93
deployment	94
deployment resource	95
describe	96
diagnostics	98
diagnostics info	99
dump	100
edr reporting	101
edr all subscribers	102
edr file transaction reporting	103
edr file transaction flush interval	104
edr file transaction limit	105
edr file transaction procedure-id, event-id, field-id	106
edr file transaction rate	107
edr file transaction threshold	108
edr file transaction collision reporting	109
edr file transaction-collision flush interval	110
edr file transaction-collision limit	111
endpoint all	112
endpoint info	113
exit	114
group nf-mgmt	115
group nrf discovery	116

group nrf discovery service type nrf	117
group nrf discovery service type nrf endpoint-profile	118
group nrf discovery service type nrf endpoint-profile endpoint-name	119
group nrf discovery service type nrf endpoint-profile endpoint-name primary ip-address	120
group nrf discovery service type nrf endpoint-profile endpoint-name secondary ip-address	121
group nrf discovery service type nrf endpoint-profile endpoint-name tertiary ip-address	122
group nrf discovery service type nrf endpoint-profile version uri-version	123
group nrf mgmt	124
group nrf mgmt service type nrf	125
group nrf mgmt service type nrf endpoint-profile	126
group nrf mgmt service type nrf endpoint-profile endpoint-name	127
group nrf mgmt service type nrf endpoint-profile endpoint-name primary ip-address	128
group nrf mgmt service type nrf endpoint-profile endpoint-name secondary ip-address	129
group nrf mgmt service type nrf endpoint-profile endpoint-name tertiary ip-address	130
group nrf mgmt service type nrf endpoint-profile version uri-version	131
help	132
history	134
id	135
idle-timeout	136
ignore-leading-space	137
infra metrics experimental	138
infra metrics verbose verboseLevels	139
infra transaction limit	140
infra transaction limit consecutive same	141
infra transaction loop	142
infra transaction loop category	143
infra transaction loop category threshold	144
infra transaction loop category threshold thresholds	145
instance instance-id	146
instance instance-id endpoint ep	147
instance instance-id endpoint gtp dscp	149
instance instance-id endpoint sctp dscp	150
instance instance-id endpoint ep interface	151
instance instance-id endpoint ep interface dispatcher	153

instance instance-id endpoint ep interface internal base-port	155
instance instance-id endpoint ep interface sla	156
instance instance-id endpoint ep interface vip	157
instance instance-id endpoint ep interface vip6	158
instance instance-id endpoint ep nodes nodes-count internal vip ip interface interface-name vip ip	159
instance instance-id endpoint ep internal base-port	160
instance instance-id endpoint ep internal-port	161
instance instance-id endpoint ep retransmission	162
instance instance-id endpoint ep system-health-level crash	163
instance instance-id endpoint ep system-health-level critical	164
instance instance-id endpoint ep system-health-level warn	165
instance instance-id endpoint ep vip	166
instance instance-id endpoint ep vip6	167
instance instance-id vip-ip vip-port fqdn	168
instances instance	169
job	170
k8 amf local etcd endpoint	171
k8 label pod-group-config	172
k8 label sctp-layer	173
k8s single-node	174
leaf-prompting	175
license smart register	176
license smart deregister	177
license smart renew	178
license smart status	179
local-instance	180
local-cause-code-map auth-failure	181
local-cause-code-map clear-subscriber	182
local-cause-code-map core-network-type-restriction	183
local-cause-code-map ctxt-xfer-fail	184
local-cause-code-map ctxt-xfer-fail-mme	185
local-cause-code-map dnn-mismatch	186
local-cause-code-map dnn-not-subscribed	187
local-cause-code-map gw-unreachable	188

local-cause-code-map ims-vops-failure	189
local-cause-code-map inter-plmn-roaming	190
local-cause-code-map peer-node-unknown	191
local-cause-code-map rat-type-restriction	192
local-cause-code-map registration-restriction	193
local-cause-code-map restricted-zone-code	194
local-cause-code-map smf-selection-failure	195
local-cause-code-map udm-unavailable	196
logging async application enable	197
logging async monitor-subscriber enable	198
logging async tracing enable	199
logging async transaction enable	200
logging error	201
logging json logging	202
logging level	203
logging logger	205
logging logger level	206
logging transaction	208
logout	210
monitor protocol	211
monitor subscriber	212
no	213
nf-tls ca certificates	214
nf-tls certificates	215
nrf discovery-info discovery-filter	216
nrf discovery-info discovery-filter nf-discovery-profile	217
nrf discovery-info discovery-filter nf-discovery-profile nf-service	218
nrf registration-info	219
nrf subscription-info	220
operator-policy network-element-profile-list scp	221
paginate	222
patch amf-ngap-ep	223
patch amf-rest-ep	224
patch amf-sctp-lb	225

patch amf-service	226
peers	227
profile compliance	228
profile compliance service	229
profile compliance service version spec	230
profile emergency-profile emergency	231
profile emergency-profile emergency extended-emergency-num	232
profile emergency-profile emergency local-emergency-num	233
profile emergency-profile emergency nssai	234
profile network-element amf	235
profile network-element amf query-params	236
profile network-element ausf	237
profile network-element ausf query-params	238
profile network-element eir	239
profile network element eir query params	240
profile network-element gmlc	241
profile network-element gmlc query-params	242
profile network-element lmf	243
profile network-element lmf query-params	244
profile-network-element nf-selection-model-priority	245
profile network-element nssf	246
profile network-element nssf query-params	247
profile network-element pcf	248
profile network-element pcf query-params	249
profile-network-element scp endpoint-profile endpoint-name primary-ip-address port	250
profile network-element scp	252
profile network-element smf	253
profile network-element smf query-params	254
profile nf-client nf-type smsf	255
profile network-element udm	257
profile network-element udm query-params	258
profile nf-client nf-type amf amf-profile	259
profile nf-client nf-type amf amf-profile locality	260
profile nf-client nf-type amf amf-profile locality service name type	261

profile nf-client nf-type amf amf-profile locality service name type endpoint-profile	262
profile nf-client nf-type amf amf-profile locality service name type endpoint-profile endpoint-name	264
profile nf-client nf-type amf amf-profile locality service name type endpoint-profile endpoint-name default-notification-subscriptions	265
profile nf-client nf-type amf amf-profile locality service name type endpoint-profile endpoint-name primary ip-address	267
profile nf-client nf-type amf amf-profile locality service name type endpoint-profile endpoint-name secondary ip-address	268
profile nf-client nf-type amf amf-profile locality service name type endpoint-profile endpoint-name tertiary ip-address	269
profile nf-client nf-type amf amf-profile locality service name type endpoint-profile version uri-version	270
profile nf-client nf-type ausf ausf-profile	271
profile nf-client nf-type ausf ausf-profile locality	272
profile nf-client nf-type ausf ausf-profile locality service name type	273
profile nf-client nf-type ausf ausf-profile locality service name type endpoint-profile	274
profile nf-client nf-type ausf ausf-profile locality service name type endpoint-profile endpoint-name	276
profile nf-client nf-type ausf ausf-profile locality service name type endpoint-profile endpoint-name default-notification-subscriptions	277
profile nf-client nf-type ausf ausf-profile locality service name type endpoint-profile endpoint-name primary ip-address	279
profile nf-client nf-type ausf ausf-profile locality service name type endpoint-profile endpoint-name secondary ip-address	280
profile nf-client nf-type ausf ausf-profile locality service name type endpoint-profile endpoint-name tertiary ip-address	281
profile nf-client nf-type ausf ausf-profile locality service name type endpoint-profile version uri-version	282
profile nf-client nf-type eir eir-profile	283
profile nf-client nf-type eir eir-profile locality	284
profile nf-client nf-type eir eir-profile locality service name type	285
profile nf-client nf-type eir eir-profile locality service name type endpoint-profile	286
profile nf-client nf-type eir eir-profile locality service name type endpoint-profile endpoint-name	288
profile nf-client nf-type eir eir-profile locality service name type endpoint-profile endpoint-name primary ip-address	289
profile nf-client nf-type eir eir-profile locality service name type endpoint-profile endpoint-name secondary ip-address	290

profile nf-client nf-type eir eir-profile locality service name type endpoint-profile endpoint-name tertiary ip-address	291
profile nf-client nf-type eir eir-profile locality service name type endpoint-profile version uri-version	292
profile nf-client nf-type group nrf auth service type nrf oauth2	293
profile nf-client nf-type gmlc gmlc-profile	295
profile nf-client nf-type gmlc gmlc-profile locality	296
profile nf-client nf-type gmlc gmlc-profile locality service name type	297
profile nf-client nf-type gmlc gmlc-profile locality service name type ngmlc-loc endpoint-profile	298
profile nf-client nf-type gmlc gmlc-profile locality service name type endpoint-profile endpoint-name	299
profile nf-client nf-type gmlc gmlc-profile locality service name type endpoint-profile endpoint-name default-notification-subscriptions	300
profile nf-client nf-type gmlc gmlc-profile locality service name type endpoint-profile endpoint-name primary ip-address	301
profile nf-client nf-type lmf lmf-profile	302
profile nf-client nf-type lmf lmf-profile locality	303
profile nf-client nf-type lmf lmf-profile locality service name type	304
profile nf-client nf-type lmf lmf-profile locality service name type endpoint-profile	305
profile nf-client nf-type lmf lmf-profile locality service name type endpoint-profile endpoint-name	306
profile nf-client nf-type lmf lmf-profile locality service name type endpoint-profile endpoint-name default-notification-subscriptions	307
profile nf-client nf-type lmf lmf-profile locality service name type endpoint-profile endpoint-name primary ip-address	309
profile nf-client nf-type lmf lmf-profile locality service name type endpoint-profile version uri-version	310
profile nf-client nf-type nssf nssf-profile	311
profile nf-client nf-type nssf nssf-profile locality	312
profile nf-client nf-type nssf nssf-profile locality service name type	313
profile nf-client nf-type nssf nssf-profile locality service name type endpoint-profile	314
profile nf-client nf-type nssf nssf-profile locality service name type endpoint-profile endpoint-name	316
profile nf-client nf-type nssf nssf-profile locality service name type endpoint-profile endpoint-name default-notification-subscriptions	317
profile nf-client nf-type nssf nssf-profile locality service name type endpoint-profile endpoint-name primary ip-address	319
profile nf-client nf-type nssf nssf-profile locality service name type endpoint-profile endpoint-name secondary ip-address	320

profile nf-client nf-type nssf nssf-profile locality service name type endpoint-profile endpoint-name tertiary ip-address	321
profile nf-client nf-type nssf nssf-profile locality service name type endpoint-profile version uri-version	322
profile nf-client nf-type pcf pcf-profile	323
profile nf-client nf-type pcf pcf-profile locality	324
profile nf-client nf-type pcf pcf-profile locality service name type	325
profile nf-client nf-type pcf pcf-profile locality service name type endpoint-profile	326
profile nf-client nf-type pcf pcf-profile locality service name type endpoint-profile endpoint-name	328
profile nf-client nf-type pcf pcf-profile locality service name type endpoint-profile endpoint-name default-notification-subscriptions	329
profile nf-client nf-type pcf pcf-profile locality service name type endpoint-profile endpoint-name primary ip-address	331
profile nf-client nf-type pcf pcf-profile locality service name type endpoint-profile endpoint-name secondary ip-address	332
profile nf-client nf-type pcf pcf-profile locality service name type endpoint-profile endpoint-name tertiary ip-address	333
profile nf-client nf-type pcf pcf-profile locality service name type endpoint-profile version uri-version	334
profile nf-client nf-type smf smf-profile	335
profile nf-client nf-type smf smf-profile locality	336
profile nf-client nf-type smf smf-profile locality service name type	337
profile nf-client nf-type smf smf-profile locality service name type endpoint-profile	338
profile nf-client nf-type smf smf-profile locality service name type endpoint-profile endpoint-name	340
profile nf-client nf-type smf smf-profile locality service name type endpoint-profile endpoint-name default-notification-subscriptions	341
profile nf-client nf-type smf smf-profile locality service name type endpoint-profile endpoint-name primary ip-address	343
profile nf-client nf-type smf smf-profile locality service name type endpoint-profile endpoint-name secondary ip-address	344
profile nf-client nf-type smf smf-profile locality service name type endpoint-profile endpoint-name tertiary ip-address	345
profile nf-client nf-type smf smf-profile locality service name type endpoint-profile version uri-version	346
profile nf-client nf-type udm udm-profile	347
profile nf-client nf-type udm udm-profile locality	348

profile nf-client nf-type udm udm-profile locality service name type	349
profile nf-client nf-type udm udm-profile locality service name type endpoint-profile	350
profile nf-client nf-type udm udm-profile locality service name type endpoint-profile endpoint-name	352
profile nf-client nf-type udm udm-profile locality service name type endpoint-profile endpoint-name default-notification-subscriptions	353
profile nf-client nf-type udm udm-profile locality service name type endpoint-profile endpoint-name primary ip-address	355
profile nf-client nf-type udm udm-profile locality service name type endpoint-profile endpoint-name secondary ip-address	356
profile nf-client nf-type udm udm-profile locality service name type endpoint-profile endpoint-name tertiary ip-address	357
profile nf-client nf-type udm udm-profile locality service name type endpoint-profile version uri-version	358
profile nf-client-failure nf-type amf	359
profile nf-client-failure nf-type amf profile failure-handling	360
profile nf-client-failure nf-type amf profile failure-handling service name type	361
profile nf-client-failure nf-type amf profile failure-handling service name type message type	362
profile nf-client-failure nf-type amf profile failure-handling service name type message type status-code httpv2	363
profile nf-client-failure nf-type ausf	365
profile nf-client-failure nf-type ausf profile failure-handling	366
profile nf-client-failure nf-type ausf profile failure-handling service name type	367
profile nf-client-failure nf-type ausf profile failure-handling service name type message type	368
profile nf-client-failure nf-type ausf profile failure-handling service name type message type status-code httpv2	369
profile nf-client-failure nf-type eir	371
profile nf-client-failure nf-type eir profile failure-handling	372
profile nf-client-failure nf-type eir profile failure-handling service name type	373
profile nf-client-failure nf-type eir profile failure-handling service name type message type	374
profile nf-client-failure nf-type eir profile failure-handling service name type message type status-code httpv2	375
profile nf-client-failure nf-type gmlc	377
profile nf-client-failure nf-type gmlc profile failure-handling	378
profile nf-client-failure nf-type gmlc profile failure-handling service name type	379
profile nf-client-failure nf-type gmlc profile failure-handling service name type message type	380

profile nf-client-failure nf-type gmlc profile failure-handling service name type message type status-code httpv2	381
profile nf-client-failure nf-type lmf	382
profile nf-client-failure nf-type lmf profile failure-handling	383
profile nf-client-failure nf-type lmf profile failure-handling service name type	384
profile nf-client-failure nf-type lmf profile failure-handling service name type message type	385
profile nf-client-failure nf-type lmf profile failure-handling service name type message type status-code httpv2	386
profile nf-client-failure nf-type nssf	387
profile nf-client-failure nf-type nssf profile failure-handling	388
profile nf-client-failure nf-type nssf profile failure-handling service name type	389
profile nf-client-failure nf-type nssf profile failure-handling service name type message type	390
profile nf-client-failure nf-type nssf profile failure-handling service name type message type status-code httpv2	391
profile nf-client-failure nf-type pcf	393
profile nf-client-failure nf-type pcf profile failure-handling	394
profile nf-client-failure nf-type pcf profile failure-handling service name type	395
profile nf-client-failure nf-type pcf profile failure-handling service name type message type	396
profile nf-client-failure nf-type pcf profile failure-handling service name type message type status-code httpv2	397
profile nf-client-failure nf-type scp	399
profile nf-client-failure nf-type smf	400
profile nf-client-failure nf-type smf profile failure-handling	401
profile nf-client-failure nf-type smf profile failure-handling service name type	402
profile nf-client-failure nf-type smf profile failure-handling service name type message type	403
profile nf-client-failure nf-type smf profile failure-handling service name type message type status-code httpv2	404
profile nf-client-failure nf-type udm	406
profile nf-client-failure nf-type udm profile failure-handling	407
profile nf-client-failure nf-type udm profile failure-handling service name type	408
profile nf-client-failure nf-type udm profile failure-handling service name type message type	409
profile nf-client-failure nf-type udm profile failure-handling service name type message type status-code httpv2	410
profile nf-client-failure nf-type smsf	412
profile nf-client-failure nf-type smsf profile failure-handling	413

profile nf-client-failure nf-type smsf profile failure-handling service name type	414
profile nf-client-failure nf-type smsf profile failure-handling service name type message type status-code	415
profile nf-pair nf-type	416
profile nf-pair nf-type cache invalidation true	418
profile nf-pair nf-type locality	419
profile nf-pair nf-type nrf-auth-group nrf-discovery-group	420
quit	421
resource pod	422
resource pod cpu	423
resource pod labels	424
resource pod memory	425
resources	426
resources info	427
rolling-upgrade all	428
running-status	429
running-status info	430
screen-length	431
screen-width	432
search	433
send	434
sessions	435
sessions affinity	436
sessions commit-pending	437
show	438
show edr	439
show geo-maintenance-mode	440
show georeplication	441
show local-interface-status	442
show role	443
show rpc	444
show subscriber	445
show subscriber ran-opt	446
show-defaults	447

smiuser	448
system	449
tai-group	450
tai-group timezone	451
tai-group network name	452
tai-group tais	453
tai-group tais tailist	454
tai-group tais tailist tac	455
tai-group tais tailist tac range	456
tai-group tais tailist timezone	457
tai-group tais tailist network name	458
terminal	459
timestamp	460
tracing	461
tracing endpoint	462
who	463

CHAPTER 2

Input Pattern Types 465

arg-type	466
crypt-hash	467
date-and-time	468
domain-name	469
dotted-quad	470
hex-list	471
hex-string	472
ipv4-address	473
ipv4-address-and-prefix-length	474
ipv4-address-no-zone	475
ipv4-prefix	476
ipv6-address	477
ipv6-address-and-prefix-length	478
ipv6-address-no-zone	479
ipv6-prefix	480
mac-address	481

- [object-identifier](#) 482
- [object-identifier-128](#) 483
- [octet-list](#) 484
- [phys-address](#) 485
- [sha-256-digest-string](#) 486
- [sha-512-digest-string](#) 487
- [size](#) 488
- [uuid](#) 489
- [yang-identifier](#) 490



About this Guide



Note The documentation set for this product strives to use bias-free language. For purposes of this documentation set, bias-free is defined as language that does not imply discrimination based on age, disability, gender, racial identity, ethnic identity, sexual orientation, socioeconomic status, and intersectionality. While any existing biased terms are being substituted, exceptions may be present in the documentation due to language that is hardcoded in the user interfaces of the product software, language used based on RFP documentation, or language that is used by a referenced third-party product.

This preface describes the *Ultra Cloud Core 5G Access and Mobility Management Function - CLI Command Reference*, the document conventions, and the customer support details.

- [Conventions Used, on page xix](#)
- [Contacting Customer Support, on page xx](#)

Conventions Used

The following tables describe the conventions used throughout this documentation.

Notice Type	Description
Information Note	Provides information about important features or instructions.
Caution	Alerts you of potential damage to a program, device, or system.
Warning	Alerts you of potential personal injury or fatality. May also alert you of potential electrical hazards.

Typeface Conventions	Description
Text represented as a screen display	This typeface represents displays that appear on your terminal screen, for example: Login:

Typeface Conventions	Description
Text represented as commands	This typeface represents commands that you enter, for example: show ip access-list This document always gives the full form of a command in lowercase letters. Commands are not case sensitive.
Text represented as a command variable	This typeface represents a variable that is part of a command, for example: show card slot_number <i>slot_number</i> is a variable representing the applicable chassis slot number.
Text represented as menu or sub-menu names	This typeface represents menus and sub-menus that you access within a software application, for example: Click the File menu, then click New

Contacting Customer Support

Use the information in this section to contact customer support.

Refer to the support area of <http://www.cisco.com> for up-to-date product documentation or to submit a service request. A valid username and password are required to access this site. Please contact your Cisco sales or service representative for additional information.



AMF Command Reference



Important

AMF does not support CLI command or command options that are not mentioned in this document; even though they are available in the command line. These unsupported CLI commands must not be used.

- [aaa](#), on page 12
- [amf-global](#), on page 13
- [amf-global call-control-policy](#), on page 14
- [amf-global call-control-policy eir-check](#), on page 24
- [amf-global dnn-policy](#), on page 25
- [amf-global dnn-policy network-element-profile-list](#), on page 26
- [amf-global location lmf-positioning](#), on page 27
- [amf-global nf-profile](#), on page 28
- [amf-global nf-profile nf-type-profile](#), on page 29
- [amf-global nf-profile nf-type-profile grpc-endpoint](#), on page 30
- [amf-global nf-profile nf-type-profile http-endpoint](#), on page 31
- [amf-global operator-policy](#), on page 32
- [amf-global operator-policy network-element-profile-list](#), on page 33
- [amf-global paging-algo](#), on page 35
- [amf-global paging-map](#), on page 36
- [amf-global paging-map precedence](#), on page 37
- [amf-global paging-profile](#), on page 39
- [amf-global paging-profile paging-stage](#), on page 40
- [amf-global plmn-policy](#), on page 41
- [amf-global supi-policy](#), on page 42
- [amf-global timers proc-timeout ue-registration](#), on page 43
- [amf-services](#), on page 44
- [amf-services api-root](#), on page 48
- [amf-services nssai](#), on page 49
- [amf-services pgw](#), on page 50
- [amf-services relative-amf-capacity](#), on page 51
- [amf-services stateless-protocol-ep](#), on page 52
- [amf-services tai-groups](#), on page 53
- [apn-groups](#), on page 54

- [apn-groups apns](#), on page 55
- [apn-profiles](#), on page 56
- [cd](#), on page 57
- [cdl clear sessions](#), on page 58
- [cdl kafka](#), on page 59
- [cdl show sessions](#), on page 60
- [cdl show status](#), on page 62
- [clear subscriber](#), on page 63
- [clear subscriber](#), on page 64
- [clear subscriber clear-opt ran-opt](#), on page 65
- [client http header](#), on page 66
- [client http ping](#), on page 67
- [client inbound interface](#), on page 68
- [client inbound interface limit overload](#), on page 69
- [client inbound interface limit pending](#), on page 70
- [client inbound limit overload](#), on page 71
- [client inbound limit pending](#), on page 72
- [client outbound host ping](#), on page 73
- [client outbound interface](#), on page 74
- [client outbound interface host ping](#), on page 75
- [client outbound interface limit consecutive failure](#), on page 76
- [client outbound interface limit pending](#), on page 77
- [client outbound limit consecutive failure](#), on page 78
- [client outbound limit pending](#), on page 79
- [commit](#), on page 80
- [compare](#), on page 81
- [config](#), on page 82
- [config-error info](#), on page 83
- [coverage](#), on page 84
- [datastore dbs](#), on page 85
- [datastore dbs endpoints](#), on page 86
- [datastore notification-ep](#), on page 87
- [datastore session-db](#), on page 88
- [datastore session-db endpoints](#), on page 89
- [debug-settings amf-ngap-ep](#), on page 90
- [debug-settings amf-rest-ep](#), on page 91
- [debug-settings amf-sctp-lb](#), on page 92
- [debug-settings amf-service](#), on page 93
- [deployment](#), on page 94
- [deployment resource](#), on page 95
- [describe](#), on page 96
- [diagnostics](#), on page 98
- [diagnostics info](#), on page 99
- [dump](#), on page 100
- [edr reporting](#), on page 101
- [edr all subscribers](#), on page 102

- [edr file transaction reporting](#) , on page 103
- [edr file transaction flush interval](#), on page 104
- [edr file transaction limit](#), on page 105
- [edr file transaction procedure-id, event-id, field-id](#), on page 106
- [edr file transaction rate](#) , on page 107
- [edr file transaction threshold](#), on page 108
- [edr file transaction collision reporting](#), on page 109
- [edr file transaction-collision flush interval](#), on page 110
- [edr file transaction-collision limit](#) , on page 111
- [endpoint all](#), on page 112
- [endpoint info](#), on page 113
- [exit](#), on page 114
- [group nf-mgmt](#), on page 115
- [group nrf discovery](#), on page 116
- [group nrf discovery service type nrf](#), on page 117
- [group nrf discovery service type nrf endpoint-profile](#), on page 118
- [group nrf discovery service type nrf endpoint-profile endpoint-name](#), on page 119
- [group nrf discovery service type nrf endpoint-profile endpoint-name primary ip-address](#), on page 120
- [group nrf discovery service type nrf endpoint-profile endpoint-name secondary ip-address](#), on page 121
- [group nrf discovery service type nrf endpoint-profile endpoint-name tertiary ip-address](#), on page 122
- [group nrf discovery service type nrf endpoint-profile version uri-version](#), on page 123
- [group nrf mgmt](#), on page 124
- [group nrf mgmt service type nrf](#), on page 125
- [group nrf mgmt service type nrf endpoint-profile](#), on page 126
- [group nrf mgmt service type nrf endpoint-profile endpoint-name](#), on page 127
- [group nrf mgmt service type nrf endpoint-profile endpoint-name primary ip-address](#), on page 128
- [group nrf mgmt service type nrf endpoint-profile endpoint-name secondary ip-address](#), on page 129
- [group nrf mgmt service type nrf endpoint-profile endpoint-name tertiary ip-address](#), on page 130
- [group nrf mgmt service type nrf endpoint-profile version uri-version](#), on page 131
- [help](#), on page 132
- [history](#), on page 134
- [id](#), on page 135
- [idle-timeout](#), on page 136
- [ignore-leading-space](#), on page 137
- [infra metrics experimental](#), on page 138
- [infra metrics verbose verboseLevels](#), on page 139
- [infra transaction limit](#), on page 140
- [infra transaction limit consecutive same](#), on page 141
- [infra transaction loop](#), on page 142
- [infra transaction loop category](#), on page 143
- [infra transaction loop category threshold](#), on page 144
- [infra transaction loop category threshold thresholds](#), on page 145
- [instance instance-id](#), on page 146
- [instance instance-id endpoint ep](#), on page 147
- [instance instance-id endpoint gtp dscp](#), on page 149
- [instance instance-id endpoint sctp dscp](#), on page 150

- [instance instance-id endpoint ep interface](#), on page 151
- [instance instance-id endpoint ep interface dispatcher](#), on page 153
- [instance instance-id endpoint ep interface internal base-port](#), on page 155
- [instance instance-id endpoint ep interface sla](#), on page 156
- [instance instance-id endpoint ep interface vip](#), on page 157
- [instance instance-id endpoint ep interface vip6](#), on page 158
- [instance instance-id endpoint ep nodes nodes-count internal vip ip interface interface-name vip ip](#), on page 159
- [instance instance-id endpoint ep internal base-port](#), on page 160
- [instance instance-id endpoint ep internal-port](#), on page 161
- [instance instance-id endpoint ep retransmission](#), on page 162
- [instance instance-id endpoint ep system-health-level crash](#), on page 163
- [instance instance-id endpoint ep system-health-level critical](#), on page 164
- [instance instance-id endpoint ep system-health-level warn](#), on page 165
- [instance instance-id endpoint ep vip](#), on page 166
- [instance instance-id endpoint ep vip6](#), on page 167
- [instance instance-id vip-ip vip-port fqdn](#), on page 168
- [instances instance](#), on page 169
- [job](#), on page 170
- [k8 amf local etcd endpoint](#), on page 171
- [k8 label pod-group-config](#), on page 172
- [k8 label sctp-layer](#), on page 173
- [k8s single-node](#), on page 174
- [leaf-prompting](#), on page 175
- [license smart register](#), on page 176
- [license smart deregister](#), on page 177
- [license smart renew](#), on page 178
- [license smart status](#), on page 179
- [local-instance](#), on page 180
- [local-cause-code-map auth-failure](#), on page 181
- [local-cause-code-map clear-subscriber](#), on page 182
- [local-cause-code-map core-network-type-restriction](#), on page 183
- [local-cause-code-map ctxt-xfer-fail](#), on page 184
- [local-cause-code-map ctxt-xfer-fail-mme](#), on page 185
- [local-cause-code-map dnn-mismatch](#), on page 186
- [local-cause-code-map dnn-not-subscribed](#), on page 187
- [local-cause-code-map gw-unreachable](#), on page 188
- [local-cause-code-map ims-vops-failure](#), on page 189
- [local-cause-code-map inter-plmn-roaming](#), on page 190
- [local-cause-code-map peer-node-unknown](#), on page 191
- [local-cause-code-map rat-type-restriction](#), on page 192
- [local-cause-code-map registration-restriction](#), on page 193
- [local-cause-code-map restricted-zone-code](#), on page 194
- [local-cause-code-map smf-selection-failure](#), on page 195
- [local-cause-code-map udm-unavailable](#), on page 196
- [logging async application enable](#), on page 197

- [logging async monitor-subscriber enable](#), on page 198
- [logging async tracing enable](#), on page 199
- [logging async transaction enable](#), on page 200
- [logging error](#), on page 201
- [logging json logging](#), on page 202
- [logging level](#), on page 203
- [logging logger](#), on page 205
- [logging logger level](#), on page 206
- [logging transaction](#), on page 208
- [logout](#), on page 210
- [monitor protocol](#), on page 211
- [monitor subscriber](#), on page 212
- [no](#), on page 213
- [nf-tls ca certificates](#), on page 214
- [nf-tls certificates](#), on page 215
- [nrf discovery-info discovery-filter](#), on page 216
- [nrf discovery-info discovery-filter nf-discovery-profile](#), on page 217
- [nrf discovery-info discovery-filter nf-discovery-profile nf-service](#), on page 218
- [nrf registration-info](#), on page 219
- [nrf subscription-info](#), on page 220
- [operator-policy network-element-profile-list scp](#), on page 221
- [paginate](#), on page 222
- [patch amf-ngap-ep](#), on page 223
- [patch amf-rest-ep](#), on page 224
- [patch amf-sctp-lb](#), on page 225
- [patch amf-service](#), on page 226
- [peers](#), on page 227
- [profile compliance](#), on page 228
- [profile compliance service](#), on page 229
- [profile compliance service version spec](#), on page 230
- [profile emergency-profile emergency](#), on page 231
- [profile emergency-profile emergency extended-emergency-num](#), on page 232
- [profile emergency-profile emergency local-emergency-num](#), on page 233
- [profile emergency-profile emergency nssai](#), on page 234
- [profile network-element amf](#), on page 235
- [profile network-element amf query-params](#), on page 236
- [profile network-element ausf](#), on page 237
- [profile network-element ausf query-params](#), on page 238
- [profile network-element eir](#), on page 239
- [profile network element eir query params](#), on page 240
- [profile network-element gmlc](#), on page 241
- [profile network-element gmlc query-params](#), on page 242
- [profile network-element lmf](#), on page 243
- [profile network-element lmf query-params](#), on page 244
- [profile-network-element nf-selection-model-priority](#), on page 245
- [profile network-element nssf](#), on page 246

- [profile network-element nssf query-params](#), on page 247
- [profile network-element pcf](#), on page 248
- [profile network-element pcf query-params](#), on page 249
- [profile network-element scp endpoint-profile endpoint-name primary-ip-address port](#), on page 250
- [profile network-element scp](#), on page 252
- [profile network-element smf](#), on page 253
- [profile network-element smf query-params](#), on page 254
- [profile nf-client nf-type smsf](#), on page 255
- [profile network-element udm](#), on page 257
- [profile network-element udm query-params](#), on page 258
- [profile nf-client nf-type amf amf-profile](#), on page 259
- [profile nf-client nf-type amf amf-profile locality](#), on page 260
- [profile nf-client nf-type amf amf-profile locality service name type](#), on page 261
- [profile nf-client nf-type amf amf-profile locality service name type endpoint-profile](#), on page 262
- [profile nf-client nf-type amf amf-profile locality service name type endpoint-profile endpoint-name](#), on page 264
- [profile nf-client nf-type amf amf-profile locality service name type endpoint-profile endpoint-name default-notification-subscriptions](#), on page 265
- [profile nf-client nf-type amf amf-profile locality service name type endpoint-profile endpoint-name primary ip-address](#), on page 267
- [profile nf-client nf-type amf amf-profile locality service name type endpoint-profile endpoint-name secondary ip-address](#), on page 268
- [profile nf-client nf-type amf amf-profile locality service name type endpoint-profile endpoint-name tertiary ip-address](#), on page 269
- [profile nf-client nf-type amf amf-profile locality service name type endpoint-profile version uri-version](#), on page 270
- [profile nf-client nf-type ausf ausf-profile](#), on page 271
- [profile nf-client nf-type ausf ausf-profile locality](#), on page 272
- [profile nf-client nf-type ausf ausf-profile locality service name type](#), on page 273
- [profile nf-client nf-type ausf ausf-profile locality service name type endpoint-profile](#), on page 274
- [profile nf-client nf-type ausf ausf-profile locality service name type endpoint-profile endpoint-name](#), on page 276
- [profile nf-client nf-type ausf ausf-profile locality service name type endpoint-profile endpoint-name default-notification-subscriptions](#), on page 277
- [profile nf-client nf-type ausf ausf-profile locality service name type endpoint-profile endpoint-name primary ip-address](#), on page 279
- [profile nf-client nf-type ausf ausf-profile locality service name type endpoint-profile endpoint-name secondary ip-address](#), on page 280
- [profile nf-client nf-type ausf ausf-profile locality service name type endpoint-profile endpoint-name tertiary ip-address](#), on page 281
- [profile nf-client nf-type ausf ausf-profile locality service name type endpoint-profile version uri-version](#), on page 282
- [profile nf-client nf-type eir eir-profile](#), on page 283
- [profile nf-client nf-type eir eir-profile locality](#), on page 284
- [profile nf-client nf-type eir eir-profile locality service name type](#), on page 285
- [profile nf-client nf-type eir eir-profile locality service name type endpoint-profile](#), on page 286

- [profile nf-client nf-type eir eir-profile locality service name type endpoint-profile endpoint-name](#), on page 288
- [profile nf-client nf-type eir eir-profile locality service name type endpoint-profile endpoint-name primary ip-address](#), on page 289
- [profile nf-client nf-type eir eir-profile locality service name type endpoint-profile endpoint-name secondary ip-address](#), on page 290
- [profile nf-client nf-type eir eir-profile locality service name type endpoint-profile endpoint-name tertiary ip-address](#), on page 291
- [profile nf-client nf-type eir eir-profile locality service name type endpoint-profile version uri-version](#), on page 292
- [profile nf-client nf-type group nrf auth service type nrf oauth2](#), on page 293
- [profile nf-client nf-type gmlc gmlc-profile](#), on page 295
- [profile nf-client nf-type gmlc gmlc-profile locality](#), on page 296
- [profile nf-client nf-type gmlc gmlc-profile locality service name type](#), on page 297
- [profile nf-client nf-type gmlc gmlc-profile locality service name type ngmlc-loc endpoint-profile](#), on page 298
- [profile nf-client nf-type gmlc gmlc-profile locality service name type endpoint-profile endpoint-name](#), on page 299
- [profile nf-client nf-type gmlc gmlc-profile locality service name type endpoint-profile endpoint-name default-notification-subscriptions](#), on page 300
- [profile nf-client nf-type gmlc gmlc-profile locality service name type endpoint-profile endpoint-name primary ip-address](#), on page 301
- [profile nf-client nf-type lmf lmf-profile](#), on page 302
- [profile nf-client nf-type lmf lmf-profile locality](#), on page 303
- [profile nf-client nf-type lmf lmf-profile locality service name type](#), on page 304
- [profile nf-client nf-type lmf lmf-profile locality service name type endpoint-profile](#), on page 305
- [profile nf-client nf-type lmf lmf-profile locality service name type endpoint-profile endpoint-name](#), on page 306
- [profile nf-client nf-type lmf lmf-profile locality service name type endpoint-profile endpoint-name default-notification-subscriptions](#), on page 307
- [profile nf-client nf-type lmf lmf-profile locality service name type endpoint-profile endpoint-name primary ip-address](#), on page 309
- [profile nf-client nf-type lmf lmf-profile locality service name type endpoint-profile version uri-version](#), on page 310
- [profile nf-client nf-type nssf nssf-profile](#), on page 311
- [profile nf-client nf-type nssf nssf-profile locality](#), on page 312
- [profile nf-client nf-type nssf nssf-profile locality service name type](#), on page 313
- [profile nf-client nf-type nssf nssf-profile locality service name type endpoint-profile](#), on page 314
- [profile nf-client nf-type nssf nssf-profile locality service name type endpoint-profile endpoint-name](#), on page 316
- [profile nf-client nf-type nssf nssf-profile locality service name type endpoint-profile endpoint-name default-notification-subscriptions](#), on page 317
- [profile nf-client nf-type nssf nssf-profile locality service name type endpoint-profile endpoint-name primary ip-address](#), on page 319
- [profile nf-client nf-type nssf nssf-profile locality service name type endpoint-profile endpoint-name secondary ip-address](#), on page 320
- [profile nf-client nf-type nssf nssf-profile locality service name type endpoint-profile endpoint-name tertiary ip-address](#), on page 321

- [profile nf-client nf-type nssf nssf-profile locality service name type endpoint-profile version uri-version](#), on page 322
- [profile nf-client nf-type pcf pcf-profile](#), on page 323
- [profile nf-client nf-type pcf pcf-profile locality](#), on page 324
- [profile nf-client nf-type pcf pcf-profile locality service name type](#), on page 325
- [profile nf-client nf-type pcf pcf-profile locality service name type endpoint-profile](#), on page 326
- [profile nf-client nf-type pcf pcf-profile locality service name type endpoint-profile endpoint-name](#), on page 328
- [profile nf-client nf-type pcf pcf-profile locality service name type endpoint-profile endpoint-name default-notification-subscriptions](#), on page 329
- [profile nf-client nf-type pcf pcf-profile locality service name type endpoint-profile endpoint-name primary ip-address](#), on page 331
- [profile nf-client nf-type pcf pcf-profile locality service name type endpoint-profile endpoint-name secondary ip-address](#), on page 332
- [profile nf-client nf-type pcf pcf-profile locality service name type endpoint-profile endpoint-name tertiary ip-address](#), on page 333
- [profile nf-client nf-type pcf pcf-profile locality service name type endpoint-profile version uri-version](#), on page 334
- [profile nf-client nf-type smf smf-profile](#), on page 335
- [profile nf-client nf-type smf smf-profile locality](#), on page 336
- [profile nf-client nf-type smf smf-profile locality service name type](#), on page 337
- [profile nf-client nf-type smf smf-profile locality service name type endpoint-profile](#), on page 338
- [profile nf-client nf-type smf smf-profile locality service name type endpoint-profile endpoint-name](#), on page 340
- [profile nf-client nf-type smf smf-profile locality service name type endpoint-profile endpoint-name default-notification-subscriptions](#), on page 341
- [profile nf-client nf-type smf smf-profile locality service name type endpoint-profile endpoint-name primary ip-address](#), on page 343
- [profile nf-client nf-type smf smf-profile locality service name type endpoint-profile endpoint-name secondary ip-address](#), on page 344
- [profile nf-client nf-type smf smf-profile locality service name type endpoint-profile endpoint-name tertiary ip-address](#), on page 345
- [profile nf-client nf-type smf smf-profile locality service name type endpoint-profile version uri-version](#), on page 346
- [profile nf-client nf-type udm udm-profile](#), on page 347
- [profile nf-client nf-type udm udm-profile locality](#), on page 348
- [profile nf-client nf-type udm udm-profile locality service name type](#), on page 349
- [profile nf-client nf-type udm udm-profile locality service name type endpoint-profile](#), on page 350
- [profile nf-client nf-type udm udm-profile locality service name type endpoint-profile endpoint-name](#), on page 352
- [profile nf-client nf-type udm udm-profile locality service name type endpoint-profile endpoint-name default-notification-subscriptions](#), on page 353
- [profile nf-client nf-type udm udm-profile locality service name type endpoint-profile endpoint-name primary ip-address](#), on page 355
- [profile nf-client nf-type udm udm-profile locality service name type endpoint-profile endpoint-name secondary ip-address](#), on page 356
- [profile nf-client nf-type udm udm-profile locality service name type endpoint-profile endpoint-name tertiary ip-address](#), on page 357

- [profile nf-client nf-type udm udm-profile locality service name type endpoint-profile version uri-version, on page 358](#)
- [profile nf-client-failure nf-type amf, on page 359](#)
- [profile nf-client-failure nf-type amf profile failure-handling, on page 360](#)
- [profile nf-client-failure nf-type amf profile failure-handling service name type, on page 361](#)
- [profile nf-client-failure nf-type amf profile failure-handling service name type message type, on page 362](#)
- [profile nf-client-failure nf-type amf profile failure-handling service name type message type status-code httpv2, on page 363](#)
- [profile nf-client-failure nf-type ausf, on page 365](#)
- [profile nf-client-failure nf-type ausf profile failure-handling, on page 366](#)
- [profile nf-client-failure nf-type ausf profile failure-handling service name type, on page 367](#)
- [profile nf-client-failure nf-type ausf profile failure-handling service name type message type, on page 368](#)
- [profile nf-client-failure nf-type ausf profile failure-handling service name type message type status-code httpv2, on page 369](#)
- [profile nf-client-failure nf-type eir, on page 371](#)
- [profile nf-client-failure nf-type eir profile failure-handling, on page 372](#)
- [profile nf-client-failure nf-type eir profile failure-handling service name type, on page 373](#)
- [profile nf-client-failure nf-type eir profile failure-handling service name type message type, on page 374](#)
- [profile nf-client-failure nf-type eir profile failure-handling service name type message type status-code httpv2, on page 375](#)
- [profile nf-client-failure nf-type gmlc, on page 377](#)
- [profile nf-client-failure nf-type gmlc profile failure-handling, on page 378](#)
- [profile nf-client-failure nf-type gmlc profile failure-handling service name type, on page 379](#)
- [profile nf-client-failure nf-type gmlc profile failure-handling service name type message type, on page 380](#)
- [profile nf-client-failure nf-type gmlc profile failure-handling service name type message type status-code httpv2, on page 381](#)
- [profile nf-client-failure nf-type lmf, on page 382](#)
- [profile nf-client-failure nf-type lmf profile failure-handling, on page 383](#)
- [profile nf-client-failure nf-type lmf profile failure-handling service name type, on page 384](#)
- [profile nf-client-failure nf-type lmf profile failure-handling service name type message type, on page 385](#)
- [profile nf-client-failure nf-type lmf profile failure-handling service name type message type status-code httpv2, on page 386](#)
- [profile nf-client-failure nf-type nssf, on page 387](#)
- [profile nf-client-failure nf-type nssf profile failure-handling, on page 388](#)
- [profile nf-client-failure nf-type nssf profile failure-handling service name type, on page 389](#)
- [profile nf-client-failure nf-type nssf profile failure-handling service name type message type, on page 390](#)
- [profile nf-client-failure nf-type nssf profile failure-handling service name type message type status-code httpv2, on page 391](#)
- [profile nf-client-failure nf-type pcf, on page 393](#)
- [profile nf-client-failure nf-type pcf profile failure-handling, on page 394](#)
- [profile nf-client-failure nf-type pcf profile failure-handling service name type, on page 395](#)
- [profile nf-client-failure nf-type pcf profile failure-handling service name type message type, on page 396](#)

- [profile nf-client-failure nf-type pcf profile failure-handling service name type message type status-code httpv2](#), on page 397
- [profile nf-client-failure nf-type scp](#), on page 399
- [profile nf-client-failure nf-type smf](#), on page 400
- [profile nf-client-failure nf-type smf profile failure-handling](#), on page 401
- [profile nf-client-failure nf-type smf profile failure-handling service name type](#), on page 402
- [profile nf-client-failure nf-type smf profile failure-handling service name type message type](#), on page 403
- [profile nf-client-failure nf-type smf profile failure-handling service name type message type status-code httpv2](#), on page 404
- [profile nf-client-failure nf-type udm](#), on page 406
- [profile nf-client-failure nf-type udm profile failure-handling](#), on page 407
- [profile nf-client-failure nf-type udm profile failure-handling service name type](#), on page 408
- [profile nf-client-failure nf-type udm profile failure-handling service name type message type](#), on page 409
- [profile nf-client-failure nf-type udm profile failure-handling service name type message type status-code httpv2](#), on page 410
- [profile nf-client-failure nf-type smsf](#), on page 412
- [profile nf-client-failure nf-type smsf profile failure-handling](#), on page 413
- [profile nf-client-failure nf-type smsf profile failure-handling service name type](#), on page 414
- [profile nf-client-failure nf-type smsf profile failure-handling service name type message type status-code](#), on page 415
- [profile nf-pair nf-type](#), on page 416
- [profile nf-pair nf-type cache invalidation true](#), on page 418
- [profile nf-pair nf-type locality](#), on page 419
- [profile nf-pair nf-type nrf-auth-group nrf-discovery-group](#), on page 420
- [quit](#), on page 421
- [resource pod](#), on page 422
- [resource pod cpu](#), on page 423
- [resource pod labels](#), on page 424
- [resource pod memory](#), on page 425
- [resources](#), on page 426
- [resources info](#), on page 427
- [rolling-upgrade all](#), on page 428
- [running-status](#), on page 429
- [running-status info](#), on page 430
- [screen-length](#), on page 431
- [screen-width](#), on page 432
- [search](#), on page 433
- [send](#), on page 434
- [sessions](#), on page 435
- [sessions affinity](#), on page 436
- [sessions commit-pending](#), on page 437
- [show](#), on page 438
- [show edr](#), on page 439
- [show geo-maintenance-mode](#), on page 440

- [show georeplication](#), on page 441
- [show local-interface-status](#), on page 442
- [show role](#), on page 443
- [show rpc](#), on page 444
- [show subscriber](#), on page 445
- [show subscriber ran-opt](#), on page 446
- [show-defaults](#), on page 447
- [smiuser](#), on page 448
- [system](#), on page 449
- [tai-group](#), on page 450
- [tai-group timezone](#), on page 451
- [tai-group network name](#), on page 452
- [tai-group tais](#), on page 453
- [tai-group tais tailist](#), on page 454
- [tai-group tais tailist tac](#), on page 455
- [tai-group tais tailist tac range](#), on page 456
- [tai-group tais tailist timezone](#), on page 457
- [tai-group tais tailist network name](#), on page 458
- [terminal](#), on page 459
- [timestamp](#), on page 460
- [tracing](#), on page 461
- [tracing endpoint](#), on page 462
- [who](#), on page 463

aaa

Configures the AAA-based user management parameters.

Command Modes Exec

Syntax Description `aaa authentication users user admin change-password { old-password old_password | new-password new_password | confirm-password new_password }`

old-password old_password

Specify the current password.
Must be a string.

new-password new_password

Specify the new password.
Must be a string.

confirm-password new_password

Specify the new password once again to change the password.
Must be a string.

Usage Guidelines Use this command to configure the AAA-based user management parameters.

amf-global

Configures global AMF parameters.

Command Modes	Exec > Global Configuration (config)
----------------------	--------------------------------------

Syntax Description	amf-global amf-name <i>amf_name</i>
---------------------------	---

amf-name *amf_name*

Specify name of the AMF.

Must be a string.

Usage Guidelines	Use this command to configure global AMF parameters. The CLI prompt changes to the AMF Global Configuration mode (config-amf-global).
-------------------------	---

amf-global call-control-policy

Configures call control policy.

Command Modes

Exec > Global Configuration (config) > AMF Global Configuration (config-amf-global)

Syntax Description

```
call-control-policy cc_policy_name { am-policy skip { false | true } |
asynch-type-comm { false | true } | authenticate { all-events { frequency
frequency_count | periodicity duration } | registration-request { inter-rat {
frequency frequency_count | periodicity duration } | intra-rat { frequency
frequency_count | periodicity duration } | normal { frequency frequency_count |
periodicity duration } | periodic { frequency frequency_count | periodicity
duration } } | service-request { data { frequency frequency_count |
periodicity duration } | signaling { frequency frequency_count periodicity
duration } } } | core-network-type-restriction { 5GC |
override-udm-restrictions } | default-dnn dnn_name | default-nssai [ sst
{ sdt } ] | disable-init-csr-reg { false | true } | disable-rfsp-pcf { false
| true } | eir-check enabled | enable-init-csr-reg-for { false | true } |
feature-support-ie { emergency-fallback supported target-cn { EPC | 5GC }
| ims-vops-service-3gpp supported { false { reject-voice-centric-ue } | true {
ue-capability-match-required } } | iwk-n26-supported |
pcscf-restoration-supported { false | true } | redirection-eps-fallback {
not-supported | supported } } | guti-reallocation { periodic-registration {
disabled | frequency frequency_count | periodicity duration } | service-request
{ frequency frequency_count | periodicity duration } } |
local-cause-code-map | paging-priority [ map { arp | range } ] | policy {
amf-redirection { horizontal-key-derivation { false | true } | use-source-key
{ false | true } } | context-release force-smf-update { false | true } |
nssf-interaction { disabled | enabled } | slicing [ inclusion-mode { A | B |
C | D | None } ] | sms-over-nas { false | true } | ue-cfg-update {
on-nssf-slice-change { false | true } | on-sms-change { false | true } |
on-tai-change { false | true } } | ue-context-transfer {
allow-interplmn-supi-transfer { false | true } | horizontal-key-derivation
{ false | true } | use-source-key { false | true } | use-source-pcf { false |
true } } } | rat-type-restriction { EUTRA | NR | VIRTUAL | WLAN } | registration
[ restrict [ access-type all ] ] | report-uli { false | true } |
security-algo range | supi mnc | tai-group | timers {
context-transfer-guard { n14-interface guard_time_value | n26-interface
guard_time_value } | ho-supervisory timer_value | t3346 timer_value | t3502
timer_value | t3512 timer_value | t3513 { attempts paging_attempts_count | value
timeout_value } | t3522 { value timer_value | retry max_rtries } | t3550 {
value timer_value | retry max_retries } | t3555 { value timer_value | retry
max_retries } | t3560 { value timer_value | retry max_retries } | t3570 { value
timer_value | retry max_retries } | tidle timer_value | tidt timer_value |
tn2 timer_value | tpurge timer_value } }
```

call-control-policy *cc_policy_name*

Specify the name of the Call Control Policy.

Must be a string.

am-policy skip { false | true }

Specify whether to skip fetching the AM Policy. Default value is false.

asynch-type-comm { false | true }

Specify whether to enable or disable asynchronous communication.

Must be one of the following:

- false
- true

Default Value: false.

authenticate { **all-events** { **frequency** *frequency_count* | **periodicity** *periodicity_duration* } | **registration-request** { **inter-rat** { **frequency** *frequency_count* | **periodicity** *periodicity_duration* } | **intra-rat** { **frequency** *frequency_count* | **periodicity** *periodicity_duration* } | **normal** { **frequency** *frequency_count* | **periodicity** *periodicity_duration* } | **periodic** { **frequency** *frequency_count* | **periodicity** *periodicity_duration* } } | **service-request** { **data** { **frequency** *frequency_count* | **periodicity** *periodicity_duration* } | **signaling** { **frequency** *frequency_count* | **periodicity** *periodicity_duration* } } }

- **authenticate all-events** —Specify the option to authenticate all events. It is also the default or the fallback authentication option, when the configuration does not present for any type.
- **authenticate registration-request** *normal* | *periodic* | *inter-rat* | *intra-rat* —Specify the required option to authenticate the registration process.
- **authenticate service-request** { *data* | *signaling* } —Specify the option to authenticate the service type for the service request.
- **frequency** *frequency_count* —Specify the required frequency duration or count for authenticating each option. The frequency range is 0–256. The disabled value is 0.
- **periodicity** *periodicity_duration* —Specify the time, period, or duration for authenticating the selected option. The periodicity duration range is 0–10800 (minutes). The disabled value is 0.

core-network-type-restriction restriction

Specify the core network type restriction.

Must be one of the following:

- 5GC
- override-udm-restrictions

default-dnn dnn_name

Specify the default DNN.

Must be a string.

default-nssai

Specify the default NSSAI that is assigned to a user equipment (UE) or a subscriber by the network.

disable-init-csr-reg { false | true }

Specify whether to enable or disable initial CSR registration.

Must be one of the following:

- **false**
- **true**

Default Value: true.

disable-rtsp-pcf { false | true }

Specify whether to enable or disable RFSP PCF.

Must be one of the following:

- **false**
- **true**

Default Value: false.

eir-check enabled

Enables the EIR check for initial and mobility registration. For more details, see [amf-global call-control-policy eir-check, on page 24](#).

enable-init-csr-reg-for { false | true }

Specify whether to enable or disable initial CSR registration.

Must be one of the following:

- **false**
- **true**

Default Value: **false**

feature-support-ie

Configure and specify about supported or unsupported AMF or 5GC features.

emergency-fallback supported target-cn { EPC | 5GC }

Specify the option to enable UE to direct the emergency fallback to the 5GC or EPC network.

Must be one of the following:

- **EPC**
- **5GC**

iwk-n26-supported

Specify the "Interworking without N26" indicator supported within the 5GS network functionality support. It gets applied only when the "Interworking without N26" indicator in the 5GS network functionality is in a supported state. When not supported, the "unsupported status" does not have a reference to the status.

pcscf-restoration-supported { true | false }

Specify an option for the IMS network to maintain service continuity and recover from disruptions affecting the PCSCF.

Must be one of the following:

- **false**
- **true**

Default Value: false.

redirection-eps-fallback { not-supported | supported }

Specify an option for the UE support and redirection for the EPS Fallback for voice, as a part of ICSR.

Must be one of the following:

- **not-supported**
- **supported**

reject-voice-centric-ue { false | true }

Specify if VoPS is not supported whether to reject voice-centric UE registration.

Must be one of the following:

- **false**
- **true**

Default Value: false.

ue-capability-match-required { false | true }

Specify whether if VoPS is supported UE capability check is required or not required.

This option appears when the **supported** is selected as **true**.

Must be one of the following:

- **false**
- **true**

Default Value: false.

guti-reallocation { periodic-registration { frequency *frequency_count* | periodicity *duration* } | service-request { frequency *frequency_count* | periodicity *duration* } }

Specify the options to configure the GUTI reallocation for periodic registration or service request based on the number of occurrences (frequency) or based on a time interval (periodicity).

local-cause-code-map

Specify a group of cause code maps in AMF.

paging-priority [map { arp | range }]

Specify the ARP value from SMF.

Must be an integer in the range of 1-15.

policy

Specify policy-related settings.

amf-redirection

Specify amf-redirection settings.

horizontal-key-derivation { false | true }

Specify whether source AMF will generate new key every time.

Must be one of the following:

- **false**
- **true**

Default Value: false.

use-source-key { false | true }

Specify whether target AMF will use key received from source AMF.

Must be one of the following:

- **false**
- **true**

Default Value: true.

context-release force-smf-update { false | true }

Enables or disables the SMF force update on context release.

Must be one of the following:

- **false**
- **true**

Default Value: false.

nssf-interaction { disabled | enabled }

Enables or disables the NSSF interaction.

slicing

Speify the network slicing settings.

inclusion-mode { A | B | C | D | None }

Speify the the inclusion mode for slicing.

sms-over-nas { false | true }

Configures support for SMS over NAS (Non-Access Stratum).

ue-cfg-update

Specify user equipment configuration update settings.

on-nssf-slice-change { false | true }

Configures updates on NSSF slice changes.

on-sms-change { false | true }

Configures updates on SMS changes.

on-tai-change { false | true }

Configures updates on TAI changes.

ue-context-transfer

Configures user equipment context transfer settings.

allow-interplmn-supi-transfer { false | true }

Allows SUPI transfer across PLMNs.

horizontal-key-derivation { false | true }

Enables or disables horizontal key derivation during context transfer.

use-source-key { false | true }

Configures usage of source key during context transfer.

use-source-pcf { false | true }

Configures usage of source PCF during context transfer.

rat-type-restriction { EUTRA | NR | VIRTUAL | WLAN }

Configures restrictions on radio access technology types.

registration [restrict [access-type all]]

Configures registration restrictions with optional access type specification.

report-uli { false | true }

Specify whether to enable or disable ULI report.

Must be one of the following:

- **false**
- **true**

Default Value: false.

security-algo range

Configures the range for security algorithms.

supi [mnc *mnc_length*]

Specify the length of Mobile Network Code (MNC) supported. Supported values are 2 and 3.

tai-group *tai_group_name*

Specify name of the TAI group. TAI group name refers to the one of the configured name in [tai-group](#), on [page 450](#).

timers

Configures various timers for different operations.

{ context-transfer-guard { n14-interface *guard_time_value* | n26-interface *guard_time_value* }

- **n14-interface *guard_time_value***

Specify the timer value in seconds in the range of 0 to 10.

The default value is 5. The value 0 is used to disable the timer in the procedure.

- **n26-interface *guard_time_value***

Specify the timer value in seconds in the range of 0 to 10.

The default value is 5. The value 0 is used to disable the timer in the procedure.

ho-supervisory *timer_value*

Specify the timer value in milliseconds.

Must be an integer in the range of 100-10000.

Default Value: 500.

t3346 timeout_duration

Specify the timeout period in seconds.

Must be an integer in the range of 0-11160. The default value is 900 seconds.

t3502 timeout_duration

Specify the timeout period in seconds.

Must be an integer in the range of 0-35712000. The default value is 720 seconds.

t3512 timeout_duration

Specify the timeout period in seconds.

Must be an integer in the range of 0-35712000. The default value is 3240 seconds.

t3513 { attempts paging_attempts_count | value timeout_value }

- **attempts** *paging_attempts_count*

Specify the number of paging attempts.

Must be an integer in the range of 1-5.

Default Value: 2.

- **value** *timeout_value*

Specify the t3513 timeout value.

Must be an integer in the range of 1 to 10.

Default Value: 5.

t3522 { value timeout_duration | retry max_retries }

- **value** *timeout_duration*

Specify the timeout period in seconds.

Must be an integer in the range of 0-30.

Default Value: 6.

- **retry** *max_retries*

Specify the maximum number of retries.

Must be an integer in the range of 0-5.

Default Value: 4.

t3550 { value timeout_duration | retry max_retries }

- **value** *timeout_duration*

Specify the timeout period in seconds.

Must be an integer in the range of 0-30.

Default Value: 6.

- **retry max_retries**

Specify the maximum number of retries.

Must be an integer in the range of 0-5.

Default Value: 4.

t3555 { value *timeout_duration* | retry max_retries }

- **value *timeout_duration***

Specify the timeout period in seconds.

Must be an integer in the range of 0-30.

Default Value: 6.

- **retry max_retries**

Specify the maximum number of retries.

Must be an integer in the range of 0-5.

Default Value: 4.

t3560 { value *timeout_duration* | retry max_retries }

- **value *timeout_duration***

Specify the timeout period in seconds.

Must be an integer in the range of 0-30.

Default Value: 6.

- **retry max_retries**

Specify the maximum number of retries.

Must be an integer in the range of 0-5.

Default Value: 4.

t3570 { value *timeout_duration* | retry max_retries }

- **value *timeout_duration***

Specify the timeout period in seconds.

Must be an integer in the range of 0-30.

Default Value: 6.

- **retry max_retries**

Specify the maximum number of retries.

Must be an integer in the range of 0-5.

Default Value: 4.

tidle *timeout_duration*

Specify the timer value in seconds.

Must be an integer in the range of 30-25200.

tidt *timeout_duration*

Specify the timeout period in seconds.

Must be an integer in the range of 0-35712000.

Default value is 3480.

tn2 *timeout_duration*

Specify the timeout period in seconds.

Must be an integer in the range of 0-35712000.

Default value is 6.

tpurge *timeout_duration*

Specify the timeout period in seconds.

Must be an integer in the range of 0-35712000.

Default value is 86400.

Usage Guidelines

Use this command to configure call control policy parameters.

amf-global call-control-policy eir-check

Configures the EIR check parameters for the UE.

Command Modes

Exec > Global Configuration (config) > Call Control Policy Configuration (config-call-control-policy)

Syntax Description

```
eir-check enabled { emergency-registration | deny-greylisted |  
initial-registration }
```

enabled

Enables the EIR check for initial and mobility registration.

emergency-registration

Enables the EIR check specifically for emergency registered UE's and emergency registration scenarios. By default, EIR check is not done for emergency registration.

deny-greylisted

This option configures the AMF to deny registration requests from devices that are greylisted.

initial-registration

This option selects only initial registrations for EIR checks. Without this configuration, the system selects both initial registrations and mobility registrations involving an MME/AMF change for EIR checks.

Usage Guidelines

Use this command to configure the EIR check for the UE.

amf-global dnn-policy

Configures the DNN policy parameter.

Command Modes	Exec > Global Configuration (config) > AMF Global Configuration (config-amf-global)
Syntax Description	dnn-policy <i>dnn_name</i> [[ims-enabled { false true }] [lbo-roaming-allowed { false true }] [nf-profile-name <i>nf_profile_name</i>]] dnn-policy <i>dnn_name</i> Specify name of the DNN. Must be a string. ims-enabled { false true } Specify whether IMS is enabled for DNN. Must be one of the following: • false • true Default Value: false. lbo-roaming-allowed { false true } Specify whether Local Breakout Roaming is supported. Must be one of the following: • false • true Default Value: false. nf-profile-name <i>nf_profile_name</i> Specify name of the NF profile. Must be a string.
Usage Guidelines	Use this command to configure DNN policy parameter.

amf-global dnn-policy network-element-profile-list

Configures the network element profile list.

Command Modes

Exec > Global Configuration (config) > AMF Global Configuration (config-amf-global) > DNN Policy Configuration (config-dnn-policy-*policy_name*)

Syntax Description

network-element-profile-list smf *smf_profile_name*

smf *smf_profile_name*

Specify name of the SMF network element profile.

Must be a string.

Usage Guidelines

Use this command to configure the network element profile list.

amf-global location lmf-positioning

Configures location services.

Command Modes	Exec > Global Configuration (config) > AMF Global Configuration (config-amf-global)
Syntax Description	<pre>amf-global location { ngran-reporting enabled lmf-positioning { mt-lr ni-lr } }</pre> amf-global location { ngran-reporting enabled lmf-positioning { mt-lr ni-lr } } • ngran-reporting enabled—Enables the UE location reporting. • lmf-positioning { mt-lr ni-lr }—Enables MT-LR or NI-LR depending on the selected configuration.
Usage Guidelines	Use this command to configure location services.

amf-global nf-profile

Configures NF profile parameters.

Command Modes

Exec > Global Configuration (config) > AMF Global Configuration (config-amf-global)

Syntax Description

nf-profile *nf_profile_name*

nf_profile_name

Specify name of the NF profile.

Must be a string.

Usage Guidelines

Use this command to configure NF profile parameters. The CLI prompt changes to the NF Profile Configuration mode (config-nf-profile-<profile_name>).

amf-global nf-profile nf-type-profile

Configures the NF profile type parameter.

Command Modes Exec > Global Configuration (config) > AMF Global Configuration (config-amf-global) > NF Profile Configuration (config-nf-profile-*profile_name*)

Syntax Description **nf-type-profile type** *nf_profile_type*

type *nf_profile_type*

Specify the NF profile type.

Must be one of the following:

- **ausf**
- **lmf**
- **nrf**
- **nssf**
- **pcf**
- **smf**
- **smsf**
- **udm**

Usage Guidelines Use this command to configure the NF profile type parameter. The CLI prompt changes to the NF Type Profile Configuration mode (config-nf-type-profile-<type>).

amf-global nf-profile nf-type-profile grpc-endpoint

Configures GRPC endpoint parameters.

Command Modes

Exec > Global Configuration (config) > AMF Global Configuration (config-amf-global) > NF Profile Name Configuration (config-nf-profile-*nf_profile_name*) > NF Profile Type Configuration (config-nf-type-profile-*profile_name*)

Syntax Description

grpc-endpoint **host** *host_name* **port** *port_number*

host *host_name*

Specify the host name.

Must be a string.

port *port_number*

Specify the port number.

Must be an integer.

Usage Guidelines

Use this command to configure GRPC endpoint parameters.

amf-global nf-profile nf-type-profile http-endpoint

Configures HTTP endpoint parameters.

Command Modes Exec > Global Configuration (config) > AMF Global Configuration (config-amf-global) > NF Profile Name Configuration (config-nf-profile-*nf_profile_name*) > NF Profile Type Configuration (config-nf-type-profile-*profile_name*)

Syntax Description **http-endpoint base-url** *base_url*

base-url *base_url*

Specify the base URL.

Must be a string.

Usage Guidelines Use this command to configure HTTP endpoint parameters.

amf-global operator-policy

Configures the operator policy.

Command Modes

Exec > Global Configuration (config) > AMF Global Configuration (config-amf-global)

Syntax Description

operator-policy *policy_name* [[**ccp-name** *ccp_name*] [**nf-profile-name** *nf_profile_name*] [**paging-map-name** *paging_map_name*]]

ccp-name *ccp_name*

Specify name of the CCP.

Must be a string.

emergency-profile-name *emergency_profile_name*

Specify name of the emergency profile.

nf-profile-name *nf_profile_name*

Specify name of the NF profile.

Must be a string.

operator-policy *policy_name*

Specify name of the operator policy.

Must be a string.

paging-map-name *paging_map_name*

Specify name of the 5G paging map.

Must be a string of 1-64 characters.

Usage Guidelines

Use this command to configure the operator policy.

amf-global operator-policy network-element-profile-list

Configures network element profiles.

Command Modes

Exec > Global Configuration (config) > AMF Global Configuration (config-amf-global) > Operator Policy Configuration (config-operator-policy-policy_name)

Syntax Description

```
network-element-profile-list { amf amf_ne_profile_name | ausf ausf_ne_profile_name
| eir eir_ne_profile_list_name | gmlc gmlc_ne_profile_name | lmf lmf_ne_profile_name
| nssf nssf_ne_profile_name | pcf pcf_ne_profile_name | smf smf_ne_profile_name | smsf
smsf_ne_profile_name | udm udm_ne_profile_name }
```

amf amf_ne_profile_name

Specify name of the AMF network element profile.

Must be a string.

ausf ausf_ne_profile_name

Specify name of the AUSF network element profile.

Must be a string.

eir eir_ne_profile_name

Specify the new EIR element to be added in the network element profile list.

Must be a string.

gmlc gmlc_ne_profile_name

Specify name of the GMLC network element profile.

Must be a string.

lmf lmf_ne_profile_name

Specify name of the LMF network element profile.

Must be a string.

nssf nssf_ne_profile_name

Specify name of the NSSF network element profile.

Must be a string.

pcf pcf_ne_profile_name

Specify name of the PCF network element profile.

Must be a string.

smf smf_ne_profile_name

Specify name of the SMF network element profile.

Must be a string.

smsf smsf_ne_profile_name

Specify the name of SMSF with the network element profile.

.

Must be a string.

udm udm_ne_profile_name

Specify name of the UDM network element profile.

Must be a string.

Usage Guidelines

Use this command to configure network element profiles.

amf-global paging-algo

Configures the paging algorithm.

Command Modes	Exec > Global Configuration (config) > AMF Global Configuration (config-amf-global)
Syntax Description	paging-algo <i>algorithm_name</i> [[action <i>action</i>] [max-n-gnb <i>max_gnbs_to_page</i>] [t3513-timeout <i>paging_timeout</i>] [max-paging-attempts <i>max_paging_attempts</i>]] action <i>action</i> Specify the action. Must be one of the following: • all_gnb_all_tai • all_gnb_last_tai • all_gnb_remaining_tai_all • all_gnb_remaining_tai_seq • last_gnb_last_tai • last_n_gnb_last_tai max-n-gnb <i>max_gnbs_to_page</i> Specify the max number of gNBs to page. Must be an integer in the range of 1-5. max-paging-attempts <i>max_paging_attempts</i> Specify the maximum number of paging attempts. Must be an integer in the range of 1-5. paging-algo <i>paging_algorithm_name</i> Specify name of the paging algorithm. Must be a string of 1-64 characters. t3513-timeout <i>paging_timeout</i> Specify the paging timeout value in seconds. Must be an integer in the range of 1-10.
Usage Guidelines	Use this command to configure the paging algorithm.

amf-global paging-map

Configures the paging map parameters.

Command Modes

Exec > Global Configuration (config) > AMF Global Configuration (config-amf-global)

Syntax Description

paging-map *paging_map_name*

paging_map_name

Specify name of the 5G paging map.

Must be a string of 1-64 characters.

Usage Guidelines

Use this command to configure the paging map parameters.

amf-global paging-map precedence

Configures the paging map precedence parameter.

Command Modes

Exec > Global Configuration (config) > AMF Global Configuration (config-amf-global)

Syntax Description

paging-map *map_name* [**precedence** *map_precedence_level* [[**paging-profile-name** *paging_profile_name*] [**trigger-type** *trigger_type*]]]

arp-value *arp_value*

Specify the Allocation and Retention Priority (ARP) value.

Must be an integer in the range of 1-15.

dereg-value *deregistration_trigger_value*

Specify the deregistration trigger value.

Must be one of the following:

- **amf_init**
- **udm_init**

dnn-value *dnn_value*

Specify the Data Network Name (DNN) value.

Must be a string of 1-64 characters.

fiveqi-value *5qi_value*

Specify the 5G QoS Indicator value.

Must be an integer in the range of 1-85.

paging-profile-name *paging_profile_name*

Specify name of the 5G paging profile.

Must be a string of 1-64 characters.

ppi-value *ppi_value*

Specify the Paging Policy Indicator (PPI) value.

Must be an integer in the range of 1-7.

precedence *map_precedence_level*

Specify the map precedence level.

Must be an integer in the range of 1-255.

trigger-type *trigger_type*

Specify the paging trigger type.

Must be one of the following:

- **5qi**
- **arp**
- **dereg**
- **dnn**
- **location**
- **ppi**
- **sms**
- **sor**
- **uecfg**
- **uecfg**

Usage Guidelines

Use this command to configure the paging map precedence parameter.

amf-global paging-profile

Configures paging profile parameters.

Command Modes	Exec > Global Configuration (config) > AMF Global Configuration (config-amf-global)
----------------------	---

Syntax Description	paging-profile <i>paging_profile_name</i>
---------------------------	--

paging_profile_name

Specify name of the 5G paging profile.

Must be a string of 1-64 characters.

Usage Guidelines	Use this command to configure paging profile parameters. The CLI prompt changes to the Paging Profile Configuration mode (config-paging-profile-<profile_name>).
-------------------------	--

amf-global paging-profile paging-stage

Configures paging stage information.

Command Modes

Exec > Global Configuration (config) > AMF Global Configuration (config-amf-global) > Paging Profile Configuration (config-paging-profile-*profile_name*)

Syntax Description

paging-stage *paging_stage_precedence* [**paging-algo** *paging_algorighthm_name*]

paging-algo *paging_algorighthm_name*

Specify name of the paging algorighthm.

Must be a string of 1-64 characters.

paging_stage_precedence

Specify the stage.

Must be an integer in the range of 1-5.

Usage Guidelines

Use this command to configure paging stage.

amf-global plmn-policy

Configures the operator policy.

Command Modes Exec > Global Configuration (config) > AMF Global Configuration (config-amf-global)

Syntax Description **plmn-policy** *plmn_name* **operator-policy-name** *operator_policy_name*

operator-policy-name *operator_policy_name*

Specify name of the operator policy.

Must be a string.

plmn-policy *plmn_name*

Specify name of the PLMN.

Must be a string of 5-6 characters in the plmn-string pattern. For information on the plmn-string pattern, see the Input Pattern Types section.

Usage Guidelines Use this command to configure the operator policy.

amf-global supi-policy

Configures SUPI policy information.

Command Modes

Exec > Global Configuration (config) > AMF Global Configuration (config-amf-global)

Syntax Description

supi-policy *supi_prefix* **operator-policy-name** *operator_policy_name*

operator-policy-name *operator_policy_name*

Specify name of the operator policy.

Must be a string.

supi-policy *supi_prefix*

Specify the SUPI prefix.

Must be a string of 1-15 characters in the supi-string pattern. For information on the supi-string pattern, see the Input Pattern Types section.

Usage Guidelines

Use this command to configure SUPI policy parameters.

amf-global timers proc-timeout ue-registration

Configures timeout value for registration.

Command Modes Exec > Global Configuration (config) > AMF Global Configuration (config-amf-global)

Syntax Description `timers proc-timeout ue-registration value timer_value`

value timer_value

Specify the timer value in seconds.

Must be an integer in the range of 0-120.

Usage Guidelines Use this command to configure timeout value for registration.

amf-services

Configures AMF service configuration parameters.

Command Modes

Exec > Global Configuration (config)

Syntax Description

```
amf-services amf_service_name [ amf-name amf_name | compliance-profile
compliance_profile | access-token-jws-algo { HS256 | ES256 | RS256 } |
access-token-jws-key | guamis [ mcc | mnc | region-id | set-id | pointer
] | local-cause-code-map cause_code_map_name ] [ emergency-profile-name
emergency_profile_name ] [ locality locality_name ] [ operator-policy-name
operator_policy_name ] [ relative-amf-capacity relative_amf_capacity ] [
validate-Tais { false | true } ] ] | nssai name slice_name | oauth2-enabled
| peer-mme [ gummei [ mcc | mnc | group-id | mme-code | address |
mme-name | mme-realm ] | tai-match [ priority | mcc | mnc | tac | address
] ] | pgw fqdn fqdn | poi-id poi_id | supported-features [ app-rx-retx-cache
| app-tx-retx | rolling-upgrade-all | rolling-upgrade-enhancement-infra
] | relative-amf-capacity capacity_number | tai-groups tai_group-name |
validate-Tais [ false | true ] ]
```

amf-services *amf_service_name*

Specify name of the AMF service.

Must be a string.

amf-name *amf_name*

Specify name of the AMF.

Must be a string.

compliance-profile *compliance_profile*

Specify name of the compliance-profile.

Must be a string.

emergency-profile-name *emergency_profile_name*

Specify name of the emergency profile.

oauth2-enabled

Enable oauth2 based authentication support.

access-token-jws-algo { HS256 | ES256 | RS256 }

JWS Algorithm used for access token and is mandatory to configure when oauth2 is enabled.

access-token-jws-key

Specify the type of the access token for the JWS Key authorization.

Configures JWS Key corresponding to JWS Algo for Access Token. **access-token-jws-key** is enabled only when "access-token-jws-algo" is being configured.

guamis [mcc | mnc | region-id | set-id | pointer]

Globally Unique AMF Identifier (GUAMI) uniquely identifies AMF within a 5G network. GUAMI is composed of the following components:

- **mcc**—Specify the three-digit code that uniquely identifies the country of the mobile network.
- **mnc**—Specify the two or three digit mnc code, which in combination with the MCC, uniquely identifies the mobile network operator within a country.
- **region-id**—Specify the fixed-length identifier that specifies a particular region within the geographical area of a network operator.
- **set-id**—Specify the specific set of AMFs within the same region for distinguishing between different AMF sets that might be deployed for load balancing or redundancy purposes.
- **pointer**—Specify the particular AMF instance within a set.

local-cause-code-map *cause_code_map_name*

Specify the local cause code condition type.

Must be a string in the range of 1–64.

nssai name *slice_name*

Specify the slice name.

peer-mme [gummei [mcc *mcc_value* | mnc *mnc_value* | group-id *group_id* | mme-code *mme_code* | address *address_value*] | tai-match [priority | *priority_value* | mcc *mcc_value* | mnc *mnc_value* | tac *tac_value* | to *end_tac_value* | address *address* | mme-name *mme_name* | mme-realm *mme_realm*]]

peer-mme refers to a Mobility Management Entity (MME) that is considered a peer to current AMF within the network.

- **gummei**—Specify the Globally Unique MME Identifier (GUMMEI), which uniquely identifies an MME in a network, of the peer.
- **tai-match priority *priority_value***—Specify the priority value of the peer.
- **mcc *mcc_value***—Specify the three-digit Mobile Country Code. Must be an integer with three digits.
- **mnc *mnc_value***—Specify the two or three-digit Mobile Country Network. Must be an integer with three digits.
- **tac *tac_value***—Specify the Tracking Area Code value. Must be an integer in the range of 1-65535.
- **to *end_tac_value***—Specify the Tracking Area Code range for peer MME.
- **address *mme_address***—Specify the peer MME address.
- **mme-name *mme_name***—Specify mme-name for the peer MME.
- **mme-realm *mme_realm***—Specify mme-realm for the peer MME.

- **group-id** *group_id*—Specify the MME Group Identifier value.
- **mme-code** *mme_code*—Specify the MME code value.

locality *locality_name*

Specify the locality for geo support.

pgw fqdn *fqdn*

Specify the SMF+PGW-C parameters.

poi-id *poi_id*

Specify the interception point ID for LI events.If not configured, amf-name is used for poi-Id.

supported-features [**app-rx-retx-cache** | **app-tx-retx** | **rolling-upgrade-all** | **rolling-upgrade-enhancement-infra**]

Specify one of the following options to enable the supported features for the rolling upgrade.

- **app-rx-retx-cache**: Enable retransmission cache for inbound messages at application.
- **app-tx-retx**: Enable retransmission for outbound messages at application.
- **rolling-upgrade-all**: Enable all the rolling upgrade features that are available through **rolling-upgrade-enhancement-infra**, **app-rx-retx-cache**, and **app-tx-retx** keyword options. By default, the rolling upgrade features are disabled.
- **rolling-upgrade-enhancement-infra**: Enable infra-level features.

tai-group *tai_group-name*

Specify the TAI group name.

operator-policy-name *operator_policy_name*

Specify name of the operator policy.

relative-amf-capacity *relative_amf_capacity*

Specify the relative AMF capacity.

Must be an integer in the range of 0-255.

Default Value: 127.

validate-Tais { **false** | **true** }

Specify whether to enable or disable TAI validation.

Must be one of the following:

- **false**
- **true**

Default Value: false.

Usage Guidelines

Use this command to configure AMF service configuration parameters. The CLI prompt changes to the AMF Services Configuration mode (config-amf-services-<service_name>).

amf-services api-root

Configures the API root for the AMF services.

Command Modes	Exec > Global Configuration (config) > AMF Service Configuration (config-amf-service-service_name)
----------------------	--

Syntax Description	api-root <i>deployment_prefix</i>
---------------------------	--

api-root *deployment_prefix*

Specify the API root with the given deployment prefix.

Usage Guidelines	Use this command to configure API root with deployment prefix.
-------------------------	--

amf-services nssai

Configures network slice services within the AMF.



Note The AMF supports a maximum of eight slices.

Command Modes Exec > Global Configuration (config) > AMF Services Configuration (config-amf-services-*amf_services_name*)

Syntax Description **amf-services** *amf_service_name* **nssai name** *slice_name* [**sst** *sst_value* | **sdt** *sdt_value*]

nssai name *slice_name* [**sst** *sst_value* | **sdt** *sdt_value*]

Specify the slice name.

Includes the following options.

- **sst** *sst_value* - Specify the SST value.
- **sdt** *sdt_value* - Specify the SDT name.

Usage Guidelines Use this command to configure the network slice services within the AMF.

amf-services pgw

Configures peer SMF+PGW-C parameters.

Command Modes

Exec > Global Configuration (config) > AMF Services Configuration (config-amf-services-*amf_service_name*)

Syntax Description

pgw fqdn *fqdn* **smf-network-element-profile** *smf_ne_profile_name*

fqdn *fqdn*

Specify the PGW fully qualified domain name.

Must be a string.

smf-network-element-profile *smf_profile_name*

Specify name of the SMF network element profile.

Must be a string.

Usage Guidelines

Use this command to configure SMF+PGW-C parameters.

amf-services relative-amf-capacity

Configures the AMF Services ID (**relative-amf-capacity**) to enable the Relative Capacity Configuration Update feature in AMF.

Command Modes	Exec > Global Configuration (<i>config</i>) > AMF Services Configuration (<i>amf-services amf_services_name</i>)
----------------------	--

Syntax Description	<pre>config amf-services service_name relative-amf-capacity capacity_number</pre>
---------------------------	---

relative-amf-capacity *capacity_number*

relative-amf-capacity *capacity_number*—Specifies the AMF capacity, within the range of 0–255. The default value is 127.

Usage Guidelines	Use this relative-amf-capacity command, when you want the relative capacity configuration update feature in AMF feature to be configured.
-------------------------	--

amf-services stateless-proto-ep

Enables the stateless protocol EP deployment for the specified AMF service.

Command Modes

Exec > Global Configuration (config) > AMF Service Configuration (config-amf-service-*service_name*)

stateless-proto-ep enabled

Syntax Description

stateless-proto-ep enabled Enables the stateless protocol EP deployment.

Command Default

Disabled

Usage Guidelines

Use this command to enables the stateless protocol EP deployment. Enabling/disabling this feature requires ops-center shut/start.

amf-services tai-groups

Configures TAI groups.

Command Modes	Exec> Global Configuration (config)> AMF Services Configuration (config-amf-services- <i>amf_services_name</i>)
----------------------	--

Syntax Description	tai-groups <i>tai_group_name</i>
---------------------------	---

tai_group_name

Specify name of the TAI group.

Usage Guidelines	Use this command to configure TAI groups.
-------------------------	---

You can configure a maximum of one element with this command.

apn-groups

Configures APN groups.

Command Modes

Exec > Global Configuration (config)

Syntax Description

apn-groups **name** *apn_group_name*

name *apn_group_name*

Specify name of the APN group.

Must be a string.

Usage Guidelines

Use this command to configure APN groups. The CLI prompt changes to the APN Groups Configuration mode (config-apn-groups-<group_name>).

apn-groups apns

Configures APN group parameters.

Command Modes Exec > Global Configuration (config) > APN Groups Configuration (config-apn-groups-*group_name*)

Syntax Description **apns** *apn_name*

apns *apn_name*

Specify name of the APN.

Must be a string.

Usage Guidelines Use this command to configure APN group parameters.

apn-profiles

Configures APN profile parameters.

Command Modes

Exec > Global Configuration (config)

Syntax Description

apn-profiles *apn_profile_name*

apn_profile_name

Specify name of the APN profile.

Must be a string.

Usage Guidelines

Use this command to configure APN profile parameters.

cd

Changes the current working directory.

Command Modes

Exec

Syntax Description

cd *directory* . **ssh**

directory

Specify the directory name.

Must be a string.

Usage Guidelines

Use this command to change the current working directory.

cdl clear sessions

Clears the data from the Cisco Data Layer (CDL) datastore.

Command Modes

Exec

Syntax Description

cdl clear sessions [**db-name** *database* | **filter** *filter* | **map-id** *map_id* | **slice-name** *slice_name*]

db-name *database*

Specify the database name to be queried for displaying the session details.

Must be a string of 1 to 16 characters.

filter *filter*

Specify the filter.

map-id *map_id*

Specify the map ID to display the data for a map.

Must be an integer in the range of 0-1024.

slice-name *slice_name*

Specify the slice name to be queried.

Must be a string of 1 to 16 characters.

Usage Guidelines

Use this command to clear the data from the Cisco Data Layer (CDL) datastore.

cdl kafka

Displays the Kafka parameters for Geo Replication.

Command Modes

Exec

Syntax Description

cdl kafka [describe [consumer-groups *name* | topics [name *kafka_topic_name* | include-internal-topics] | list [consumer-groups | topics include-internal-topics]

describe

Describe the kafka topics or consumer groups.

consumer-groups *name*

Displays the kafka consumer groups. By default, all the consumer groups are described

topics name *kafka_topic_name*

Displays the specified kafka topics. By default, all the internal topics are described

include-internal-topics

Indicates to include the internal topics.

list

Lists the kafka topics or the consumer groups.

consumer-groups

Lists the kafka topics or the consumer groups.

topics include-internal-topics

List all the kafka topics that include the internal topics.

Usage Guidelines

Use this command to display Kafka parameters for Geo Replication.

cdl show sessions

Displays the session data from the datastore.

Command Modes

Exec

Syntax Description

```
cdl show sessions count [ detailed [ db-name db_name | filter { condition
[ ends-with | match | starts-with ] | key key_value } | map-id map_id |
slice-name slice_name ] | summary ] | summary [ db-name db_name | filter {
condition [ ends-with | match | starts-with ] | key key_value } | limit
limit | map-id map_id | max-data-size-kb maximum_data_size | next-eval-end-time
| next-eval-start-time | purge-on-eval | slice-name slice_name ] | detailed
[ db-name db_name | filter { condition [ ends-with | match | starts-with
] | key key_value } | limit limit | map-id map_id | max-data-size-kb
maximum_data_size | next-eval-end-time | next-eval-start-time | purge-on-eval
| slice-name slice_name ]
```

count

Display the session count information.

detailed

Display the session details with data.

db-name db_name

Specify the database name to be queried for displaying the session details.

Must be a string of 1 to 16 characters.

key key_value

Specify the query value.

Must be a string of 0 to 512 characters.

map-id map_id

Specify the map ID to display the data for a map.

Must be an integer in the range of 0-1024.

limit limit

Specify the maximum number of records to display.

Must be an integer in the range of 1-500.

filter condition { ends-with | match | starts-with }

Specify the query expression to filter the results of query.

purge-on-eval

Displays the list of sessions that have purge-on-eval flag set to true or false.

next-eval-end-time

Displays the sessions that have the next-eval-time less than this time.

next-eval-start-time

Displays the sessions that have the next-eval-time greater than this time.

Usage Guidelines

Use this command to display the session details.

cdl show status

Displays the status of the database from the datastore.

Command Modes

Exec

Syntax Description

cdl show status **db-name** *database_name*

db-name *database_name*

Specify the database name to display the status.

Must be a string of 1 to 16 characters.

Usage Guidelines

Use this command to display the status of the queried database from the datastore.

clear subscriber

Clears subscriber data.

Command Modes

Exec

Syntax Description

clear subscriber { **all** | **gr-instance** *gr_instance* | **imei** *imei_id* | **namespace** *namespace* | **nf-service** *nf_service* | **supi** *supi_id* | *config_specific_options* }

all

Specify to remove all subscriber data.

gr-instance *gr_instance*

Specify the subscribers from the GR instance.

imei *imei_id*

Specify the International Mobile Equipment Identity.

Must be a string of 15-16 characters.

namespace *namespace*

NOTE: This keyword is deprecated, use nf-service instead. Specifies the product namespace under which to search.

Default Value: cisco-mobile-infra:none.

nf-service *nf_service*

Specify the network function service under which to search.

Default Value: cisco-mobile-infra:none.

supi *supi_id*

Specify to remove subscriber data associated with the SUPI ID.

Must be a string of 1-63 characters.

Usage Guidelines

Use this command to clear subscriber data.

clear subscriber

Clears the subscriber data.

Command Modes

Exec

Syntax Description

```
clear subscriber { all | gnodeb-id { mcc mcc_value | mnc mnc_value } |
gr-instance gr_instance | imei imei_id | namespace namespace | nf-service nf_service
| supi supi_id | config_specific_options }
```

all

Clears all the subscriber data.

gnodeb-id { **mcc** *mcc_value* | **mnc** *mnc_value* }

Specify the gNodeB ID.

gr-instance *gr_instance*

Specify the subscribers from the GR instance.

imei *imei_id*

Specify the International Mobile Equipment Identity.

Must be a string of 15 to 16 characters.

namespace *namespace*

Specify the product namespace under which to search.



Note This keyword is deprecated, use nf-service instead.

Default Value: cisco-mobile-infra:none

nf-service *nf_service*

Specify the network function service under which to search.

Default Value: cisco-mobile-infra:none.

supi *supi_id*

Specify to remove subscriber data associated with the SUPI ID.

Must be a string of 1 to 63 characters.

Usage Guidelines

Use this command to clear the subscriber data.

clear subscriber clear-opt ran-opt

Displays and clears subscriber data based on specified criteria.

Command Modes

Exec

Syntax Description

`{ clear | show } subscriber gnodeb-id gnodeb_id mnc mobile_network_code mcc`
mobile_country_code

gnodeb-id gnodeb_id

Specify the gnodeb-id.

Must be an integer in the range of 0-4294967295.

mnc mobile_country_code

Specify the mobile country code.

Must be a string in a two digit pattern.

mnc mobile_network_code

Specify the mobile network code.

Must be a string in the two-or-three-digit pattern. For information on the two-or-three-digit pattern, see the Input Pattern Types section.

Usage Guidelines

Use this command to view and to clear subscriber data based on specified criteria.

client http header

Configures HTTP header parameters.

Command Modes

Exec > Global Configuration (config)

Syntax Description

client http header user-agent *user_agent_header*

user-agent *user_agent_header*

Specify the user agent header.

Must be one of the following:

- **app-name**
- **cluster-name**
- **disable**

Default Value: app-name.

Usage Guidelines

Use this command to configure HTTP header parameters.

client http ping

Configures HTTP ping parameters.

Command Modes

Exec > Global Configuration (config)

Syntax Description

```
client http ping { [ interval ping_interval ] [ timeout ping_timeout ] }
```

interval ping_interval

Specify, in milliseconds, the time interval between two HTTP pings.

Must be an integer in the range of 0-30000.

Default Value: 10000.

timeout ping_timeout

Specify, in milliseconds, the ping timeout duration to detect if remote host is down.

Must be an integer in the range of 0-15000.

Default Value: 5000.

Usage Guidelines

Use this command to configure HTTP ping parameters.

client inbound interface

Configures inbound client interface parameters.

Command Modes

Exec > Global Configuration (config)

Syntax Description

client inbound interface *interface_name*

interface *interface_name*

Specify name of the interface.

Usage Guidelines

Use this command to configure inbound client interface parameters. The CLI prompt changes to the Interface Configuration mode (config-interface-<interface_name>).

client inbound interface limit overload

Configures Overload configuration parameters.

Command Modes	Exec > Global Configuration (config)
Syntax Description	client inbound limit overload reject-code <i>response_code</i> reject-code <i>response_code</i> Specify the response code to be used when pending limit exceeds. Must be an integer.
Usage Guidelines	Use this command to configure Overload configuration parameters.

client inbound interface limit pending

Configures pending limit parameter.

Command Modes

Exec > Global Configuration (config)

Syntax Description

client inbound limit pending request *max_pending_request_limit*

request *max_pending_request_limit*

Specify the maximum pending request limit to allow.

Must be an integer.

Default Value: 10240.

Usage Guidelines

Use this command to configure the pending request limit parameter.

client inbound limit overload

Configures Overload configuration parameters.

Command Modes Exec > Global Configuration (config)

Syntax Description `client inbound limit overload reject-code response_code`

reject-code *response_code*

Specify the response code to be used when pending limit exceeds.

Must be an integer.

Usage Guidelines Use this command to configure Overload configuration parameters.

client inbound limit pending

Configures pending limit parameter.

Command Modes

Exec > Global Configuration (config)

Syntax Description

client inbound limit pending request *max_pending_request_limit*

request *max_pending_request_limit*

Specify the maximum pending request limit to allow.

Must be an integer.

Default Value: 10240.

Usage Guidelines

Use this command to configure the pending request limit parameter.

client outbound host ping

Configures outbound host ping parameter.

Command Modes	Exec > Global Configuration (config) > Interface Configuration (config-interface- <i>interface_name</i>)
Syntax Description	host ping backoff <i>backoff_interval</i> timeout <i>ping_timeout</i> interval <i>ping_interval</i> backoff <i>backoff_interval</i> Specify, in milliseconds, the backoff time interval to wait when remote host is detected down before pinging again. Must be an integer in the range of 0-3600000. Default Value: 0. interval <i>ping_interval</i> Specify, in milliseconds, the time interval between two pings. Must be an integer in the range of 0-30000. Default Value: 0. timeout <i>ping_timeout</i> Specify the ping timeout duration, in milliseconds, to detect remote host down. Must be an integer in the range of 0-15000. Default Value: 0.
Usage Guidelines	Use this command to configure outbound host ping parameter.

client outbound interface

Configures outbound client interface parameters.

Command Modes

Exec > Global Configuration (config)

Syntax Description

client outbound interface *interface_name*

interface *interface_name*

Specify the interface.

Usage Guidelines

Use this command to configure outbound client interface parameters. The CLI prompt changes to the Interface Configuration mode (config-interface-<interface_name>).

client outbound interface host ping

Configures outbound host ping parameter.

Command Modes	Exec > Global Configuration (config) > Interface Configuration (config-interface- <i>interface_name</i>)
Syntax Description	host ping backoff <i>backoff_interval</i> timeout <i>ping_timeout</i> interval <i>ping_interval</i> backoff <i>backoff_interval</i> Specify, in milliseconds, the backoff time interval to wait when remote host is detected down before pinging again. Must be an integer in the range of 0-3600000. Default Value: 0. interval <i>ping_interval</i> Specify, in milliseconds, the time interval between two pings. Must be an integer in the range of 0-30000. Default Value: 0. timeout <i>ping_timeout</i> Specify the ping timeout duration, in milliseconds, to detect remote host down. Must be an integer in the range of 0-15000. Default Value: 0.
Usage Guidelines	Use this command to configure outbound host ping parameter.

client outbound interface limit consecutive failure

Configures consecutive failure configuration parameters.

Command Modes

Exec > Global Configuration (config) > Interface Configuration (config-interface-*interface_name*)

Syntax Description

limit consecutive failure count *consecutive_failure_count* **codes** *failure_codes*

codes *failure_codes*

Specify the list of failure codes to be considered, such as timeout, 503, etc.

Must be a string.

You can configure a maximum of 10 elements with this keyword.

count *consecutive_failure_count*

Specify the consecutive failure limit count to detect remote host as down.

Must be an integer.

Default Value: 0.

Usage Guidelines

Use this command to configure consecutive failure configuration parameters.

client outbound interface limit pending

Configures pending limit configuration.

Command Modes Exec > Global Configuration (config) > Interface Configuration (config-interface-*interface_name*)

Syntax Description **limit pending response** *response_message_limit*

response *response_message_limit*

Specify the pending response message limit to detect remote host as down.

Must be an integer.

Default Value: 1024.

Usage Guidelines Use this command to configure pending limit configuration.

client outbound limit consecutive failure

Configures consecutive failure configuration parameters.

Command Modes

Exec > Global Configuration (config) > Interface Configuration (config-interface-*interface_name*)

Syntax Description

limit consecutive failure count *consecutive_failure_count* **codes** *failure_codes*

codes *failure_codes*

Specify the list of failure codes to be considered, such as timeout, 503, etc.

Must be a string.

You can configure a maximum of 10 elements with this keyword.

count *consecutive_failure_count*

Specify the consecutive failure limit count to detect remote host as down.

Must be an integer.

Default Value: 0.

Usage Guidelines

Use this command to configure consecutive failure configuration parameters.

client outbound limit pending

Configures pending limit configuration.

Command Modes

Exec > Global Configuration (config) > Interface Configuration (config-interface-*interface_name*)

Syntax Description

limit pending response *response_message_limit*

response *response_message_limit*

Specify the pending response message limit to detect remote host as down.

Must be an integer.

Default Value: 1024.

Usage Guidelines

Use this command to configure pending limit configuration.

commit

Configures the commit parameters.

Command Modes

Exec

Syntax Description

commit [**abort** { **persist-id** *persist_id* } | **confirm** { **persist-id** *persist_id* } | **persist-id** *persist_id*]

abort persist-id *persist_id*

Specify to abort commit. Specify the persistence ID for the commit operation.

Must be an integer.

confirm persist-id *persist_id*

Specify to confirm commit. Specify the persistence ID for the commit operation.

Must be an integer.

persist-id *persist_id*

Specify the persistence ID for the commit operation.

Must be an integer.

Usage Guidelines

Use this command to configure the commit parameters.

compare

Compares the running configuration to another configuration or a file.

Command Modes

Exec

Syntax Description

compare file { *filename* *another_configuration* }

***filename* [.kube | .ssh] |**

Specify the file name ending with .kube/.ssh or the directory path of the file to be compared.

Must be a string.

another_configuration

Specify the configuration to be compared against.

Must be a string.

Usage Guidelines

Use this command to configure the file that must be compared.

config

Manipulates the software configuration information.

Command Modes

Exec

Syntax Description

config [**exclusive** | **no-confirm** | **shared** | **terminal**]

exclusive

Specify to enter the exclusive configuration mode.

no-confirm

Specify to apply the command without asking for confirmation.

shared

Specify to enter the shared configuration mode.

terminal

Specify to enter the terminal configuration mode.

Usage Guidelines

Use this command to manipulate the software configuration information.

config-error info

Displays configuration error information.

Command Modes

Exec

Syntax Description

`show config-error [ info ]`

Usage Guidelines

Use this command to view configuration error information.

coverage

Configures code coverage utilities.

Command Modes	Exec > Global Configuration (config)
Syntax Description	coverage container-stop <i>container_stop</i> container-stop <i>container_stop</i> Specify the container stop. Must be a string. Default Value: false.
Usage Guidelines	Use this command to configure code coverage utilities.

datastore dbs

Configures DBS parameters.

Command Modes Exec > Global Configuration (config)

Syntax Description **datastore dbs** *dbs_name*

dbs *dbs_name*

Specify name of the DBS.

Must be a string.

Usage Guidelines Use this command to configure the DBS parameters. The CLI prompt changes to the DBS Configuration mode (config-dbs-<dbs_name>).

datastore dbs endpoints

Configures endpoint parameters.

Command Modes

Exec > Global Configuration (config) > DBS Configuration (config-dbs-*dbs_name*)

Syntax Description

endpoints *endpoint_name* [**port** *port_number*]

endpoints *endpoint_name*

Specify the endpoint host name.

Must be a string.

port *port_number*

Specify the port number.

Must be an integer.

Usage Guidelines

Use this command to configure endpoint parameters.

datastore notification-ep

Configures notification endpoint parameters.

Command Modes Exec > Global Configuration (config)

Syntax Description `datastore notification-ep { [ host host_name ] [ port port_number ] }`

host *host_name*

Specify the host name.

Must be a string.

port *port_number*

Specify the port number.

Must be an integer.

Usage Guidelines Use this command to configure notification endpoint parameters.

datastore session-db

Configures Session DB parameters.

Command Modes

Exec > Global Configuration (config)

Syntax Description

datastore session-db endpoints *endpoint_name* [[**port** *port_number*] [**slice-name** *slice_name*]]

slice-name *slice_name*

Specify name of the slice.

Must be a string.

Usage Guidelines

Use this command to configure Session DB parameters.

datastore session-db endpoints

Configures endpoint parameters.

Command Modes Exec > Global Configuration (config) > DBS Configuration (config-dbs-*dbs_name*)

Syntax Description **endpoints** *endpoint_name* [**port** *port_number*]

endpoints *endpoint_name*

Specify the endpoint host name.
Must be a string.

port *port_number*

Specify the port number.
Must be an integer.

Usage Guidelines Use this command to configure endpoint parameters.

debug-settings amf-ngap-ep

Configures debug settings for AMF NGAP endpoint.

Command Modes

Exec > Global Configuration (config)

Syntax Description

debug-settings amf-ngap-ep go-debug

go-debug

Specify to debug.

Must be a string.

Usage Guidelines

Use this command to configure debug settings for the AMF NGAP endpoint.

debug-settings amf-rest-ep

Configures debug settings for AMF REST endpoint.

Command Modes	Exec > Global Configuration (config)
Syntax Description	debug-settings amf-rest-ep go-debug go-debug Specify to debug. Must be a string.
Usage Guidelines	Use this command to configure debug settings for the AMF REST endpoint.

debug-settings amf-sctp-lb

Configures debug settings for amf-sctp-lb.

Command Modes

Exec > Global Configuration (config)

Syntax Description

debug-settings amf-sctp-lb go-debug

go-debug

Specify to debug.

Must be a string.

Usage Guidelines

Use this command to configure debug settings for amf-sctp-lb.

debug-settings amf-service

Configures debug settings for AMF service.

Command Modes	Exec > Global Configuration (config)
Syntax Description	debug-settings amf-service go-debug go-debug Specify to debug. Must be a string.
Usage Guidelines	Use this command to configure debug settings for the AMF service.

deployment

Configures the product deployment parameters.

Command Modes

Exec > Global Configuration (config)

Syntax Description

```
deployment { app-name application_name | cluster-name cluster_name | dc-name datacenter_name | logical-nf-instance-id logical_nf_instance_id | model deployment_model }
```

app-name *application_name*

Specify name of the application.

Must be a string.

cluster-name *cluster_name*

Specify name of the cluster.

Must be a string.

dc-name *datacenter_name*

Specify name of the datacenter.

Must be a string.

logical-nf-instance-id *logical_nf_instance_id*

Specify the logical NF instance ID.

Must be an integer.

Default Value: 0.

model *deployment_model*

Specify the deployment model. Default: Large.

Must be one of the following:

- **small**

Usage Guidelines

Use this command to configure product deployment parameters.

deployment resource

Configures the deployment CPU resource parameter.

Command Modes	Exec > Global Configuration (config) > Deployment Configuration (config-deployment)
----------------------	---

Syntax Description	resource cpu <i>cpu_size</i>
---------------------------	--

cpu *cpu_size*

Specify the CPU size in millicores.

Must be an integer in the range of 2000-1000000.

Default Value: 18000.

Usage Guidelines	Use this command to configure the deployment CPU resource parameter.
-------------------------	--

describe

Displays the command information.

Command Modes

Exec

Syntax Description

describe *command*

command

Specify the command name to display the detailed information about the command.

Must be a string.

The command must be one of the following:

- **aaa**
- **cd**
- **cdl**
- **clear**
- **commit**
- **compare**
- **config**
- **describe**
- **dump**
- **exit**
- **geo**
- **help**
- **history**
- **id**
- **idle-timeout**
- **ignore-leading-space**
- **job**
- **leaf-prompting**
- **license**
- **logout**
- **monitor**
- **no**

- **paginate**
- **quit**
- **reconcile**
- **screen-length**
- **screen-width**
- **search**
- **send**
- **show**
- **show-defaults**
- **smiuser**
- **system**
- **terminal**
- **timestamp**
- **transaction**
- **who**

Usage Guidelines

Use this command to display the command-specific information.

diagnostics

Displays diagnostics information.

Command Modes

Exec

Syntax Description

show diagnostics

Usage Guidelines

Use this command to view diagnostics information.

diagnostics info

Displays diagnostics information.

Command Modes

Exec

Syntax Description

`show diagnostics [ info ]`

Usage Guidelines

Use this command to view diagnostics information.

dump

Removes the transaction history.

Command Modes Exec

Syntax Description `dump transactionhistory`

transactionhistory

Dump the transaction history.

Usage Guidelines Use this command to remove the transaction history.

edr reporting

Disables/Enables the EDR reporting.

Command Modes	Exec > Global Configuration (config)
Syntax Description	edr reporting { disable enable } edr reporting { disable enable } • disable : Disables the EDR reporting. • enable : Enables the EDR reporting.
Usage Guidelines	Use this command to configure EDR enable parameters.

edr all subscribers

Configures EDR reporting for all subscribers.

Command Modes Exec > Global Configuration (config)

Syntax Description `edr reporting all subscribers`

edr reporting all subscribers

- all subscribers**

: Enables edr reporting for all.

Usage Guidelines Use this command to configure EDR reporting for all subscribers.

edr file transaction reporting

Configures EDR file transaction reporting.

Command Modes

Exec > Global Configuration (config)

Syntax Description

edr file transaction reporting { disable | enable }

edr file transaction reporting { disable | enable }

Use this command to disable/enable transaction level EDR.

Usage Guidelines

Use this command to disable or enable the EDR file transaction reporting.

edr file transaction flush interval

Configures EDR file transaction flush interval.

Command Modes

Exec > Global Configuration (config)

Syntax Description

edr file transaction flush *flush_interval*

edr file transaction flush *flush_interval*

Specify the interval time interval in milliseconds to flush file.

The flush interval value is in integer ranging from 500 to 10000 ms. The default value is 1000 ms.

Usage Guidelines

Use this command to configure EDR file flush parameters.

edr file transaction limit

Configures EDR file transaction limit parameters.

Command Modes

Exec > Global Configuration (config)

Syntax Description

```
edr file transaction limit { count file_count | size file_max_limit | storage  
  storage_size }
```

```
edr file transaction limit { count file_count | size file_max_limit | storage storage_size }
```

- **count** *file_count*: Specify the maximum number of files to be preserved in service-pod (s), (default: 10).
- **size** *file_max_limit*: Specify the maximum single file size (in MiB) limit in service-pod (s), (default: 100MiB).
- **storage** *storage_size*: Specify the EDR Storage size (in GiB) of persistent volume in edr-monitor pod (s), (disable PV: 0, default: 24GiB).

Usage Guidelines

Use this command to configure EDR file transaction limit parameters.

edr file transaction procedure-id, event-id, field-id

Configures the procedure-id, event-id, and field-id parameters.



Note Once you configure this CLI, the system generates EDR only for the configured parameters, and it disables all other procedures, fields, and events.

Command Modes Exec > Global Configuration (config) > EDR File Transaction (config-edr-file-transaction)

Syntax Description **procedure** *procedure_id* [**event** *event_id* | **field** *field_id*]

procedure *procedure_id* [**event** *event_id* | **field** *field_id*]

Specify the name of procedure-id, event-id, and field-id to enable the EDR reporting.

Must be a string.

Usage Guidelines Use this command to enable transaction-level procedure-id, event-id, and field-id parameters.

edr file transaction rate

Configures EDR file transaction rate.

Command Modes

Exec > Global Configuration (config)

Syntax Description

edr file transaction rate *edr_generation_rate*

edr file transaction rate *edr_generation_rate*

Specify the allowed rate per second to generate EDR records. The default value is 4096.

Usage Guidelines

Use this command to configure EDR file transaction rate.

edr file transaction threshold

Configures EDR file transaction threshold parameters.

Command Modes

Exec > Global Configuration (config)

Syntax Description

```
edr file transaction threshold { cpu cpu_threshold | session session_threshold }
```

```
edr file transaction threshold { cpu cpu_threshold | session session_threshold }
```

Specify the CPU and Session threshold value (s) to limit EDR generation. After reaching any of the CPU or session threshold values, the system stops generating the EDR files.

The default value for CPU threshold is 80%.

The default value for session threshold is 100,000 per gr-instance.

Usage Guidelines

Use this command to configure EDR file transaction threshold parameters.

edr file transaction collision reporting

Configures EDR file transaction-collision reporting.



Note For more details on transaction-collision scenarios, see [UCC AMF Configuration and Administration Guide > Chapter: Event Data Records > EDR Transaction Collision](#)

Command Modes Exec > Global Configuration (config)

Syntax Description `edr file transaction-collision reporting { disable | enable }`

`edr file transaction-collision reporting { disable | enable }`

Disables or enables the EDR reporting.

Usage Guidelines Use this command to disable or enable the EDR file transaction-collision reporting.

edr file transaction-collision flush interval

Configures EDR file transaction-collision flush interval.



Note For more details on transaction-collision scenarios, see [UCC AMF Configuration and Administration Guide > Chapter: Event Data Records > EDR Transaction Collision](#)

Command Modes Exec > Global Configuration (config)

Syntax Description **edr file transaction-collision flush** *flush_interval*

edr file transaction-collision flush *flush_interval*

Specify the interval time interval in milliseconds to flush file.

The flush interval value is in integer ranging from 500 to 10000 ms. The default value is 1000 ms.

Usage Guidelines Use this command to configure EDR file flush parameters.

edr file transaction-collision limit

Configures EDR file transaction-collision limit parameters.



Note For more details on transaction-collision scenarios, see [UCC AMF Configuration and Administration Guide > Chapter: Event Data Records > EDR Transaction Collision](#)

Command Modes

Exec > Global Configuration (config)

Syntax Description

```
edr file transaction-collision limit { count file_count | size file_max_limit  
| storage storage_size }
```

edr file transaction-collision limit { count *file_count* | size *file_max_limit* | storage *storage_size* }

- **count** *file_count*: Specify the maximum number of files to be preserved in service-pod (s), (default: 10).
- **size** *file_max_limit*: Specify the maximum single file size (in MiB) limit in service-pod (s), (default: 100MiB).
- **storage** *storage_size*: Specify the EDR Storage size (in GiB) of persistent volume in edr-monitor pod (s), (disable PV: 0, default: 24GiB).

Usage Guidelines

Use this command to configure EDR file transaction-collision limit parameters.

endpoint all

Displays endpoint status.

Command Modes

Exec

Syntax Description

show endpoint [all]

Usage Guidelines

Use this command to view the status of endpoints.

endpoint info

Displays endpoint information.

Command Modes

Exec

Syntax Description

show endpoint info

Usage Guidelines

Use this command to view endpoint information.

exit

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

Command Modes	Exec
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Syntax Description	exit
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Usage Guidelines	Use this command to exit the current configuration mode and return to the parent configuration mode. When used in the Exec mode, exits the management session.
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group nf-mgmt

Configures NF management group name.

Command Modes	Exec > Global Configuration (config)
Syntax Description	group nf-mgmt <i>mgmt_group_name</i> { nrf-mgmt-group <i>nrf_mgmt_group_name</i> failure-handling-profile <i>fh_profile_name</i> locality <i>locality_name</i> heartbeat-interval <i>heartbeat_interval</i> message-handling-profile <i>message_handling_profile_name</i> group nf-mgmt <i>mgmt_group_name</i> Specify name of the NRF management group. Must be a string. nrf-mgmt-group <i>nrf_mgmt_group_name</i> Specify name of the NRF management group. Must be a string. failure-handling-profile <i>fh_profile_name</i> Specify name of the Failure Handling profile for the NRF Management functionality. Must be a string. locality <i>locality_name</i> Specify the locality information. Must be a string. heartbeat-interval <i>heartbeat_interval</i> Specify the heartbeat interval in seconds. Must be an integer. message-handling-profile <i>message_handling_profile_name</i> Specify the message handling profile name. Must be an integer.
Usage Guidelines	Use this command to configure NF management group name.

group nrf discovery

Configures NRF discovery group parameters.

Command Modes

Exec > Global Configuration (config)

Syntax Description

group nrf discovery *group_name* [**nrf-type** *nrf_type*]

discovery *group_name*

Specify name of the NRF discovery group.

Must be a string.

nrf-type *nrf_type*

Specify the NRF type.

Must be one of the following:

- **PLMN**: PLMN.
- **SHARED**: SHARED.
- **SLICE-LOCAL**: SLICE-LOCAL.

Usage Guidelines

Use this command to configure the NRF discovery group configuration.

group nrf discovery service type nrf

Configures the NRF discovery service name.

Command Modes

Exec > Global Configuration (config)

Syntax Description

nrf *nrf_service_name* [**responsetimeout** *response_timeout*]

nrf nrf_service_name

Specify name of the NRF discovery service.

Must be one of the following:

- **nnrf-disc**

responsetimeout response_timeout

Specify the response timeout interval in milliseconds.

Must be an integer.

Default Value: 2000.

Usage Guidelines

Use this command to configure the NRF discovery service name.

group nrf discovery service type nrf endpoint-profile

Configures endpoint profile parameters2.

Command Modes

Exec > Global Configuration

Syntax Description

endpoint-profile *endpoint_profile_name* { **api-uri-prefix** *api_uri_prefix* | **api-root** *api_root* | **uri-scheme** *uri_scheme* }

api-root *api_root*

Specify the API root.

Must be a string.

api-uri-prefix *api_uri_prefix*

Specify the API URI prefix.

Must be a string.

endpoint-profile *endpoint_profile_name*

Specify name of the endpoint profile.

Must be a string.

uri-scheme *uri_scheme*

Specify the URI scheme.

Must be one of the following:

- **http**
- **https**

Usage Guidelines

Use this command to configure endpoint profile parameters.

group nrf discovery service type nrf endpoint-profile endpoint-name

Configures endpoint parameters.

Command Modes Exec > Global Configuration

Syntax Description **endpoint-name** *endpoint_name* [**priority** *priority* | **capacity** *endpoint_capacity*]

capacity *endpoint_capacity*

Specify the endpoint capacity.

Must be an integer in the range of 0-65535.

Default Value: 10.

priority *priority*

Specify the node priority for endpoint.

Must be an integer in the range of 0-65535.

endpoint_name

Specify name of the endpoint.

Must be a string.

Usage Guidelines Use this command to configure endpoint parameters.

group nrf discovery service type nrf endpoint-profile endpoint-name primary ip-address

Configures the endpoint IP address and port number parameters. This command is common to multiple NF clients, and is available in the following configuration modes.

Command Modes	Exec > Global Configuration (config) > NRF NF-Client Configuration (config-nrf) > NRF Profile Configuration (config-nrf-profile- <i>profile_name</i>) > Locality Configuration (config-locality- <i>locality_name</i>) > Service Name Type Configuration (config-type- <i>service_name_type</i>) > Endpoint Profile Configuration (config-endpoint-profile- <i>profile_name</i>) > Endpoint Name Configuration (config-endpoint-name- <i>endpoint_name</i>)
Syntax Description	<pre>{ primary secondary tertiary } ip-address { [ipv4 <i>ipv4_address</i> ipv6 <i>ipv6_address</i>] [port <i>port_number</i>] }</pre> ipv4 <i>ipv4_address</i> Specify the IPv4 address. Must be a string in the ipv4-address pattern. For information on the ipv4-address pattern, see the Input Pattern Types section. ipv6 <i>ipv6_address</i> Specify the IPv6 address. Must be a string in the ipv6-address pattern. For information on the ipv6-address pattern, see the Input Pattern Types section. port <i>port_number</i> Specify the port number. Must be an integer in the range of 0-65535.
Usage Guidelines	Use this command to configure the endpoint IP address and port number parameters.

group nrf discovery service type nrf endpoint-profile endpoint-name secondary ip-address

Configures the endpoint IP address and port number parameters. This command is common to multiple NF clients, and is available in the following configuration modes.

Command Modes	Exec > Global Configuration (config) > NRF NF-Client Configuration (config-nrf) > NRF Profile Configuration (config-nrf-profile-profile_name) > Locality Configuration (config-locality-locality_name) > Service Name Type Configuration (config-type-service_name_type) > Endpoint Profile Configuration (config-endpoint-profile-profile_name) > Endpoint Name Configuration (config-endpoint-name-endpoint_name)
Syntax Description	{ primary secondary tertiary } ip-address { [ipv4 ipv4_address ipv6 ipv6_address] [port port_number] } ipv4 ipv4_address Specify the IPv4 address. Must be a string in the ipv4-address pattern. For information on the ipv4-address pattern, see the Input Pattern Types section. ipv6 ipv6_address Specify the IPv6 address. Must be a string in the ipv6-address pattern. For information on the ipv6-address pattern, see the Input Pattern Types section. port port_number Specify the port number. Must be an integer in the range of 0-65535.
Usage Guidelines	Use this command to configure the endpoint IP address and port number parameters.

group nrf discovery service type nrf endpoint-profile endpoint-name tertiary ip-address

Configures the endpoint IP address and port number parameters. This command is common to multiple NF clients, and is available in the following configuration modes.

Command Modes	Exec > Global Configuration (config) > NRF NF-Client Configuration (config-nrf) > NRF Profile Configuration (config-nrf-profile- <i>profile_name</i>) > Locality Configuration (config-locality- <i>locality_name</i>) > Service Name Type Configuration (config-type- <i>service_name_type</i>) > Endpoint Profile Configuration (config-endpoint-profile- <i>profile_name</i>) > Endpoint Name Configuration (config-endpoint-name- <i>endpoint_name</i>)
Syntax Description	<pre>{ primary secondary tertiary } ip-address { [ipv4 <i>ipv4_address</i> ipv6 <i>ipv6_address</i>] [port <i>port_number</i>] }</pre> ipv4 <i>ipv4_address</i> Specify the IPv4 address. Must be a string in the ipv4-address pattern. For information on the ipv4-address pattern, see the Input Pattern Types section. ipv6 <i>ipv6_address</i> Specify the IPv6 address. Must be a string in the ipv6-address pattern. For information on the ipv6-address pattern, see the Input Pattern Types section. port <i>port_number</i> Specify the port number. Must be an integer in the range of 0-65535.
Usage Guidelines	Use this command to configure the endpoint IP address and port number parameters.

group nrf discovery service type nrf endpoint-profile version uri-version

Configures URI version information.

Command Modes Exec > Global Configuration

Syntax Description **uri-version** *uri_version* [**full-version** *full_version*]

full-version *full_version*

Specify the full version in the format *major-version.minor-version.patch-version.[alpha-draft-number]*

Must be a string.

uri-version *uri_version*

Specify the URI version.

Must be a string in the pattern v\d.

Usage Guidelines Use this command to configure URI version information.

group nrf mgmt

Configures the NRF self-management group parameters.

Command Modes

Exec > Global Configuration

Syntax Description

mgmt *group_name* [**nrf-type** *nrf_type*]

mgmt *group_name*

Specify name of the NRF self-management group.

Must be a string.

nrf-type *nrf_type*

Specify the NRF type.

Must be one of the following:

- **PLMN**: PLMN.
- **SHARED**: SHARED.
- **SLICE-LOCAL**: SLICE-LOCAL.

Usage Guidelines

Use this command to configure the NRF self-management group parameters.

group nrf mgmt service type nrf

Configures the NRF self-management service information.

Command Modes Exec > Global Configuration

Syntax Description `nrf nrf-service-name nrf_service_name [ responsetimeout response_timeout ]`

nrf-service-name nrf_service_name

Specify name of the NRF service.

Must be one of the following:

- **nnrf-nfm**

responsetimeout response_timeout

Specify the response timeout interval in milliseconds.

Must be an integer.

Default Value: 2000.

Usage Guidelines Use this command to configure the NRF self-management service information.

group nrf mgmt service type nrf endpoint-profile

Configures endpoint profile parameters¹.

Command Modes

Exec > Global Configuration

Syntax Description

endpoint-profile *endpoint_profile_name* { **api-uri-prefix** *api_uri_prefix* | **api-root** *api_root* | **uri-scheme** *uri_scheme* }

api-root *api_root*

Specify the API root.

Must be a string.

api-uri-prefix *api_uri_prefix*

Specify the API URI prefix.

Must be a string.

endpoint-profile *endpoint_profile_name*

Specify name of the endpoint profile.

Must be a string.

uri-scheme *uri_scheme*

Specify the URI scheme.

Must be one of the following:

- **http**
- **https**

Usage Guidelines

Use this command to configure endpoint profile parameters.

group nrf mgmt service type nrf endpoint-profile endpoint-name

Configures endpoint parameters.

Command Modes Exec > Global Configuration

Syntax Description **endpoint-name** *endpoint_name* [**max-retry-count** *max_retry_count*] [**priority** *endpoint_priority*]

max-retry-count *max_retry_count*

Specify the maximum retry count.

Must be an integer in the range of 0-10.

Default Value: 3.

priority *endpoint_priority*

Specify the node priority for endpoint.

Must be an integer in the range of 0-65535.

endpoint_name

Specify name of the endpoint.

Must be a string.

Usage Guidelines Use this command to configure endpoint parameters.

group nrf mgmt service type nrf endpoint-profile endpoint-name primary ip-address

Configures the endpoint IP address and port number parameters. This command is common to multiple NF clients, and is available in the following configuration modes.

Command Modes	Exec > Global Configuration (config) > NRF NF-Client Configuration (config-nrf) > NRF Profile Configuration (config-nrf-profile- <i>profile_name</i>) > Locality Configuration (config-locality- <i>locality_name</i>) > Service Name Type Configuration (config-type- <i>service_name_type</i>) > Endpoint Profile Configuration (config-endpoint-profile- <i>profile_name</i>) > Endpoint Name Configuration (config-endpoint-name- <i>endpoint_name</i>)
Syntax Description	<pre>{ primary secondary tertiary } ip-address { [ipv4 <i>ipv4_address</i> ipv6 <i>ipv6_address</i>] [port <i>port_number</i>] }</pre> ipv4 <i>ipv4_address</i> Specify the IPv4 address. Must be a string in the ipv4-address pattern. For information on the ipv4-address pattern, see the Input Pattern Types section. ipv6 <i>ipv6_address</i> Specify the IPv6 address. Must be a string in the ipv6-address pattern. For information on the ipv6-address pattern, see the Input Pattern Types section. port <i>port_number</i> Specify the port number. Must be an integer in the range of 0-65535.
Usage Guidelines	Use this command to configure the endpoint IP address and port number parameters.

group nrf mgmt service type nrf endpoint-profile endpoint-name secondary ip-address

Configures the endpoint IP address and port number parameters. This command is common to multiple NF clients, and is available in the following configuration modes.

Command Modes Exec > Global Configuration (config) > NRF NF-Client Configuration (config-nrf) > NRF Profile Configuration (config-nrf-profile-profile_name) > Locality Configuration (config-locality-locality_name) > Service Name Type Configuration (config-type-service_name_type) > Endpoint Profile Configuration (config-endpoint-profile-profile_name) > Endpoint Name Configuration (config-endpoint-name-endpoint_name)

Syntax Description { primary | secondary | tertiary } ip-address { [ipv4 ipv4_address | ipv6 ipv6_address] [port port_number] }

ipv4 ipv4_address

Specify the IPv4 address.

Must be a string in the ipv4-address pattern. For information on the ipv4-address pattern, see the Input Pattern Types section.

ipv6 ipv6_address

Specify the IPv6 address.

Must be a string in the ipv6-address pattern. For information on the ipv6-address pattern, see the Input Pattern Types section.

port port_number

Specify the port number.

Must be an integer in the range of 0-65535.

Usage Guidelines Use this command to configure the endpoint IP address and port number parameters.

group nrf mgmt service type nrf endpoint-profile endpoint-name tertiary ip-address

Configures the endpoint IP address and port number parameters. This command is common to multiple NF clients, and is available in the following configuration modes.

Command Modes	Exec > Global Configuration (config) > NRF NF-Client Configuration (config-nrf) > NRF Profile Configuration (config-nrf-profile- <i>profile_name</i>) > Locality Configuration (config-locality- <i>locality_name</i>) > Service Name Type Configuration (config-type- <i>service_name_type</i>) > Endpoint Profile Configuration (config-endpoint-profile- <i>profile_name</i>) > Endpoint Name Configuration (config-endpoint-name- <i>endpoint_name</i>)
Syntax Description	{ primary secondary tertiary } ip-address { [ipv4 <i>ipv4_address</i> ipv6 <i>ipv6_address</i>] [port <i>port_number</i>] } ipv4 <i>ipv4_address</i> Specify the IPv4 address. Must be a string in the ipv4-address pattern. For information on the ipv4-address pattern, see the Input Pattern Types section. ipv6 <i>ipv6_address</i> Specify the IPv6 address. Must be a string in the ipv6-address pattern. For information on the ipv6-address pattern, see the Input Pattern Types section. port <i>port_number</i> Specify the port number. Must be an integer in the range of 0-65535.
Usage Guidelines	Use this command to configure the endpoint IP address and port number parameters.

group nrf mgmt service type nrf endpoint-profile version uri-version

Configures version information.

Command Modes Exec > Global Configuration

Syntax Description **uri-version** *uri_version* [**full-version** *full_version*]

full-version *full_version*

Specify the full version in the format *major-version.minor-version.patch-version.[alpha-draft-number]*
Must be a string.

uri-version *uri_version*

Specify the URI version.
Must be a string in the pattern *v\d*.

Usage Guidelines Use this command to configure the version information.

help

Displays help information for specified command.

Command Modes

Exec

Syntax Description

help *command*

command

Specify the command name to display the corresponding help information.

Must be a string.

The command must be one of the following:

- **aaa**
- **cd**
- **cdl**
- **clear**
- **commit**
- **compare**
- **config**
- **describe**
- **dump**
- **exit**
- **geo**
- **help**
- **history**
- **id**
- **idle-timeout**
- **ignore-leading-space**
- **job**
- **leaf-prompting**
- **license**
- **logout**
- **monitor**
- **no**

- **paginate**
- **quit**
- **reconcile**
- **screen-length**
- **screen-width**
- **search**
- **send**
- **show**
- **show-defaults**
- **smiuser**
- **system**
- **terminal**
- **timestamp**
- **transaction**
- **who**

Usage Guidelines

Use this command to view help information for a specified command.

history

Configures the command history cache size.

Command Modes Exec

Syntax Description **history** *history_size*

history_size

Specify the command history cache size.
Must be an integer in the range of 0-1000.

Usage Guidelines Use this command to configure the command history cache size.

id

Displays the user ID information.

Command Modes Exec

Syntax Description `id`

Usage Guidelines Use this command to view the user ID information.

idle-timeout

Configures the maximum duration for which a command can remain idle in seconds after which the system automatically terminates the connection.

Command Modes

Exec

Syntax Description

idle-timeout *timeout_in_seconds*

timeout_in_seconds

Specify the idle timeout duration in seconds.

Usage Guidelines

Use this command to configure the maximum duration for which a command can remain idle.

ignore-leading-space

Configures whether to ignore or consider the leading whitespace at the beginning of a command.

Command Modes

Exec

Syntax Description

`ignore-leading-space { false | true }`

`{ false | true }`

Specify false to ignore leading whitespace, and true to consider it.
Must be either "false" or "true".

Usage Guidelines

Use this command to configure whether to ignore or consider leading whitespace at the beginning of a command.

infra metrics experimental

Configures the experimental metrics version to be enabled.

Command Modes

Exec > Global Configuration (config)

Syntax Description

infra metrics experimental version *experimental_metrics_version*

version *experimental_metrics_version*

Specify the experimental metrics version to be enabled.

Must be an integer in the range of 0-4.

Default Value: 0.

Usage Guidelines

Use this command to configure the experimental metrics version to be enabled.

infra metrics verbose verboseLevels

Configures verbose configuration parameters.

Command Modes Exec > Global Configuration (config)

Syntax Description `infra metrics verbose pod_type level verbose_level`

level verbose_level

Specify the verbosity level.

Must be one of the following:

- debug
- production
- trace

Default Value: trace.

pod_type

Specify the pod type.

Must be one of the following:

- load-balancer
- protocol
- service

Usage Guidelines Use this command to configure verbose configuration parameters.

infra transaction limit

Configures the maximum stage limit per transaction.

Command Modes

Exec > Global Configuration (config)

Syntax Description

infra transaction limit stage *max_stage_limit*

stage *max_stage_limit*

Specify the maximum stage limit per transaction.

Must be an integer.

Default Value: 100.

Usage Guidelines

Use this command to configure the maximum stage limit per transaction.

infra transaction limit consecutive same

Configures the maximum consecutive stage limit per transaction.

Command Modes Exec > Global Configuration (config)

Syntax Description `infra transaction limit consecutive same stage max_consecutive_stage_limit`

stage *max_consecutive_stage_limit*

Specify the maximum consecutive stage limit per transaction.

Must be an integer.

Default Value: 10.

Usage Guidelines Use this command to configure the maximum consecutive stage limit per transaction.

infra transaction loop

Configures the transaction loop detection parameters.

Command Modes

Exec > Global Configuration (config)

Syntax Description

infra transaction loop detection *detection_status*

detection *detection_status*

Specify to enable or disable loop detection.

Must be one of the following:

- **disable**
- **enable**

Default Value: disable.

Usage Guidelines

Use this command to configure the transaction loop detection parameter.

infra transaction loop category

Configures the loop category.

Command Modes

Exec > Global Configuration (config)

Syntax Description

infra transaction loop category *loop_category*

category *loop_category*

Specify the category.

Usage Guidelines

Use this command to configure the loop category. The CLI prompt changes to the Loop Category Configuration mode(config-category-<category>).

infra transaction loop category threshold

Configures the loop detection interval parameter.

Command Modes	Exec > Global Configuration (config) > Loop Category Configuration (config-category- <i>category</i>)
----------------------	--

Syntax Description	threshold interval <i>loop_detect_interval</i>
---------------------------	---

interval *loop_detect_interval*

Specify, in seconds, the loop detection interval.

Must be an integer.

Default Value: 5.

Usage Guidelines	Use this command to configure the loop detection interval parameter.
-------------------------	--

infra transaction loop category threshold thresholds

Configures thresholds.

Command Modes

Exec > Global Configuration (config) > Loop Category Configuration (config-category-category)

Syntax Description

threshold *threshold_level* [[**action** *threshold_action*] [**count** *max_transactions*]]

action *threshold_action*

Specify the action to take on threshold breach.

Must be one of the following:

- **kill-session**
- **log-event**
- **noop**

Default Value: noop.

count *max_transactions*

Specify the maximum number of transactions for the threshold interval.

Must be an integer.

Default Value: 100.

thresholds *threshold_level*

Specify the threshold level.

Must be one of the following:

- **high**
- **low**

Usage Guidelines

Use this command to configure thresholds.

instance instance-id

Configures instance ID of GR instance.

Command Modes

Exec > Global Configuration (config)

Syntax Description

instance instance-id *instance_id*

id *instance_id*

Specify the instance ID.

Usage Guidelines

GR instance-specific parameters. Use this command to configure the instance ID of GR instance. The CLI prompt changes to the Instance ID Configuration mode (config-instance-id-<instance_id>).

instance instance-id endpoint ep

Configures endpoint parameters.

Command Modes

Exec > Global Configuration (config) > Instance ID Configuration (config-instance-id-*instance_id*)

Syntax Description

endpoint *endpoint_type* [[**instancetype** *ep_local_interface_type*] [**loopbackEth** *loopbackEth*] [**loopbackPort** *loopbackPort*] [**nodes** *node_replicas_for_resiliency*] [**replicas** *replicas_per_node*] [**uri-scheme** *uri_scheme*]]

certificate-name *certificate_alias_name*

Specify the alias name for the certificate.

endpoint *endpoint_type*

Specify the endpoint type.

instancetype *ep_local_interface_type*

Specify the endpoint local interface type.

Must be one of the following:

- **Dual**
- **IPv4**
- **IPv6**

Default Value: IPv4.

internal-vip *internal_vip*

Specify the internal VIP.

Must be a string.

loopbackEth *loopbackEth*

Specify the endpoint local interface name or host IP.

Must be a string.

loopbackPort *loopbackPort*

Specify the endpoint local port.

Must be an integer.

max-fragment-size *max_fragment_size*

Specify the Maximum SCTP fragment size for data packet.

Must be an integer.

Default Value: 0.

nodes *node_replicas_for_resiliency*

Specify the number of node replicas for resiliency.

Must be an integer.

Default Value: 1.

replicas *replicas_per_node*

Specify the number of replicas per node.

Must be an integer.

Default Value: 1.

uri-scheme *uri_scheme*

Specify the URI scheme.

Must be one of the following:

- **http**
- **https**

Default Value: http.

Usage Guidelines

Use this command to configure endpoint parameters.

instance instance-id endpoint gtp dscp

Configures the Differentiated Service Code Point (DSCP) while sending packets over the N26/GTPC interface.

Command Modes Exec > Global Configuration (config) > Instance ID Configuration (config-instance instance-id-*instance_id*) > Endpoint Configuration (config-endpoint-*gtp*)

dscp *dscp_value*

Syntax Description **dscp** *dscp_value* Specify the DSCP value. DSCP value is either in hexadecimal string starting with '0x' eg:0x3F or decimal value (range 0-63) eg:12.

Note
If DSCP value is not specified in the configuration then the default DSCP value is set to 0.

Usage Guidelines Use this command to configure the DSCP value for the N26/GTPC interface.

instance instance-id endpoint sctp dscp

Configures the Differentiated Service Code Point (DSCP) while sending packets over the N2/SCTP interface.

Command Modes Exec > Global Configuration (config) > Instance ID Configuration (config-instance instance-id-*instance_id*) > Endpoint Configuration (config-endpoint-sctp)

dscp *dscp_value*

Syntax Description **dscp** *dscp_value* Specify the DSCP value. DSCP value is either in hexadecimal string starting with '0x' eg:0x3F or decimal value (range 0-63) eg:12.

Note
If DSCP value is not specified in the configuration then the default DSCP value is set to 0.

Usage Guidelines Use this command to configure the DSCP value for the N2/SCTP interface.

instance instance-id endpoint ep interface

Configures the interface type.

Command Modes Exec > Global Configuration (config) > Instance Configuration (config-instance-id-*instance_id*) > Endpoint Configuration (config-endpoint-*endpoint_name*)

Syntax Description **interface** *interface_type*

certificate-name *certificate_alias_name*

Specify the alias name for certificate.

instancetype *ep_local_interface_type*

Specify the endpoint local interface type.

Must be one of the following:

- **Dual**
- **IPv4**
- **IPv6**

Default Value: IPv4.

loopbackEth *loopback_eth*

Specify the Loopback Eth pod interface.

Must be a string.

loopbackPort *loopback_port_number*

Specify the loopback port number.

Must be an integer.

uri-scheme *uri_scheme*

Specify the URI scheme.

Must be one of the following:

- **http**
- **https**

Default Value: http.

interface_type

Specify the interface type.

instance instance-id endpoint ep interface

Usage Guidelines Use this command to configure the interface type.

instance instance-id endpoint ep interface dispatcher

Displays the dispatcher queue support details for the interface.

Command Modes

Exec> Global Configuration (config)> Instance ID Configuration (config-instance-id-*instance_id*)> Endpoint Configuration (config-endpoint-*endpoint_type*)> Interface Configuration (config-interface-*interface_name*)

Syntax Description

dispatcher { **cache** { **false** | **true** } | **capacity** *queue_capacity* | **count** *dispatcher_queues_count* | **expiry** *cache_entry_expiry_duration* | **nonresponsive** *cache_entry_expiry_duration* | **outbound** { **false** | **true** } | **rate-limit** *queue_rate_limit* | **threshold** *outstanding_requests_per_queue_cache* }

cache { false | true }

Specify to enable or disable retransmission cache support. To disable, set to true.

Must be one of the following:

- **false**
- **true**

Default Value: false.

capacity *queue_capacity*

Specify the capacity of each queue.

Must be an integer.

Default Value: 5000.

count *dispatcher_queues_count*

Specify the count of dispatcher queues.

Must be an integer.

Default Value: 0.

expiry *cache_entry_expiry_duration*

Specify, in milliseconds, the responded cache entry expiry duration.

Must be an integer.

Default Value: 60000.

nonresponsive *cache_entry_expiry_duration*

Specify, in milliseconds, the non-responsive cache entry expiry duration.

Must be an integer.

Default Value: 30000.

outbound { false | true }

Specify to enable or disable queue support for outbound messages. To disable, set to true.

Must be one of the following:

- **false**
- **true**

Default Value: true.

rate-limit *queue_rate_limit*

Specify the rate limit for each queue.

Must be an integer.

Default Value: 0.

threshold *outstanding_requests_per_queue_cache*

Specify the outstanding requests per queue cache.

Must be an integer.

Default Value: 30000.

Usage Guidelines

Use this command to view dispatcher queue support details for the interface.

instance instance-id endpoint ep interface internal base-port

Configures the internal base-port to start endpoint parameter.

Command Modes Exec> Global Configuration (config)> Instance ID Configuration (config-instance-id-*instance_id*)> Endpoint Configuration (config-endpoint-*endpoint_type*)> Interface Configuration (config-interface-*interface_name*)

Syntax Description **internal base-port start** *base_port_to_start_ep*

start *base_port_to_start_ep*
Specify the base port to start endpoint.
Must be an integer in the range of 1024-65535.

Usage Guidelines Use this command to configure the internal base-port to start endpoint parameter.

instance instance-id endpoint ep interface sla

Configures SLA parameters.

Command Modes Exec > Global Configuration (config) > Instance Configuration (config-instance-id-*instance_id*) > Endpoint Configuration (config-endpoint-*endpoint_name*) > Interface Configuration (config-interface-*interface_name*)

Syntax Description **sla** { [**response** *response_time*] [**procedure** *procedure_time*] }

procedure *procedure_time*

Specify, in milliseconds, the procedure time.

Must be an integer in the range of 1000-120000.

response *response_time*

Specify, in milliseconds, the response time.

Must be an integer in the range of 1000-180000.

Usage Guidelines Use this command to configure SLA parameters.

instance instance-id endpoint ep interface vip

Configures Virtual IP parameters.

Command Modes Exec > Global Configuration (config) > Instance Configuration (config-instance-id-*instance_id*) > Endpoint Configuration (config-endpoint-*endpoint_name*) > Interface Configuration (config-interface-*interface_name*)

Syntax Description **vip-ip** *vip_ip_address* [[**offline**] [**vip-interface** *interface_name*] [**vip-port** *vip_port_number*]]

offline

Specify to mark the vip-ip as offline.

vip-interface *interface_name*

Specify the interface name to advertise BGP router.

Must be a string.

vip-ip *vip_ip_address*

Specify the host IP address.

Must be a string.

vip-port *vip_port_number*

Specify the port number.

Must be an integer.

Usage Guidelines Use this command to configure Virtual IP parameters.

instance instance-id endpoint ep interface vip6

Configures VIP IPv6 parameters.

Command Modes Exec > Global Configuration (config) > Instance Configuration (config-instance-id-*instance_id*) > Endpoint Configuration (config-endpoint-*endpoint_name*) > Interface Configuration (config-interface-*interface_name*)

Syntax Description **vip-ip6** *vip_ip6* [[**offline**] [**vip-ipv6-port** *port_number*]]

offline

Specify the VIP IP as offline.

vip-ip6 *vip_ip6*

Specify the host detail.

Must be a string.

vip-ipv6-port *port_number*

Specify the port number.

Must be an integer.

Usage Guidelines Use this command to configure VIP IPv6 parameters.

instance instance-id endpoint ep nodes nodes-count internal vip ip interface interface-name vip ip

Configures GTPC-EP merge mode.

Command Modes Exec > Global Configuration (config) > Instance Configuration (config-instance-id-*instance_id*) > Endpoint Configuration (config-endpoint-*endpoint_name*) > Interface Configuration (config-interface-*interface_name*)

Syntax Description **vip-ip** *vip_ip_address*

vip-ip *vip_ip_address*

Specifies the virtual IP address associated with the specified interface.
Must be a string.



Note vip-ipv6 is not supported for GTP endpoint.

Usage Guidelines Use this command to configure Virtual IP parameters.

instance instance-id endpoint ep internal base-port

Configures the internal base-port to start endpoint parameter.

Command Modes Exec > Global Configuration (config) > Instance Configuration (config-instance-id-*instance_id*) > Endpoint Configuration (config-endpoint-*endpoint_type*)

Syntax Description **internal base-port start** *base_port_to_start_ep*

start *base_port_to_start_ep*

Specify the base port to start endpoint.

Must be an integer in the range of 1024-65535.

Usage Guidelines Use this command to configure the internal base-port to start endpoint parameter.

instance instance-id endpoint ep internal-port

Configures internal port parameters.

Command Modes Exec > Global Configuration (config) > Instance Configuration (config-instance-id-*instance_id*) > Endpoint Configuration (config-endpoint-*endpoint_type*)

Syntax Description **internal-port** **metrics** *metrics_port* **admin** *admin_port* **ipc** *ipc_port* **pprof** *pprof_port* **keepalived** *keepalived_port*

admin *admin_port*

Specify the admin port number for SCTP.

Must be an integer.

Default Value: 7879.

ipc *ipc_port*

Specify the IPC port number for SCTP.

Must be an integer.

Default Value: 9005.

keepalived *keepalived_port*

Specify the keepalived port number for SCTP.

Must be an integer.

Default Value: 29000.

metrics *metrics_port*

Specify the metrics port number for SCTP.

Must be an integer.

Default Value: 7083.

pprof *pprof_port*

Specify the PPROF port number for SCTP.

Must be an integer.

Default Value: 7850.

Usage Guidelines Use this command to configure internal port parameters.

instance instance-id endpoint ep retransmission

Configures retransmission configuration parameters.

Command Modes	Exec > Global Configuration (config) > Instance Configuration (config-instance-id- <i>instance_id</i>) > Endpoint Configuration (config-endpoint- <i>endpoint_type</i>)
----------------------	---

Syntax Description	retransmission timeout <i>retransmission_interval</i> max-retry <i>max_retry</i>
---------------------------	--

max-retry *max_retry*

Specify the maximum number of times to request retry attempts. To disable retransmission, set to 0

Must be an integer in the range of 0-5.

Default Value: 3.

timeout *retransmission_interval*

Specify the retransmission interval in seconds. To disable retransmission, set to 0

Must be an integer in the range of 0-10.

Default Value: 2.

Usage Guidelines	Use this command to configure retransmission configuration parameters.
-------------------------	--

instance instance-id endpoint ep system-health-level crash

Configures system health crash parameters.

Command Modes Exec > Global Configuration (config) > Instance Configuration (config-instance-id-*instance_id*) > Endpoint Configuration (config-endpoint-*endpoint_type*)

Syntax Description **system-health-level crash** { [**cpu-percent** *cpu_percentage*] [**memory-in-mbs** *memory*] [**num-of-goroutine** *goroutine_per_core*] }

cpu-percent *cpu_percentage*

Specify the CPU percentage.

Must be an integer.

Default Value: 80.

memory-in-mbs *memory*

Specify the memory in MB.

Must be an integer.

Default Value: 2048.

num-of-goroutine *goroutine_per_core*

Specify the number of goroutine per core.

Must be an integer.

Default Value: 45000.

Usage Guidelines Use this command to configure system health crash parameters.

instance instance-id endpoint ep system-health-level critical

Configures system health critical parameters.

Command Modes

Exec > Global Configuration (config) > Instance Configuration (config-instance-id-*instance_id*) > Endpoint Configuration (config-endpoint-*endpoint_type*)

Syntax Description

system-health-level critical { [**cpu-percent** *cpu_percent*] [**memory-in-mbs** *memory*] [**num-of-goroutine** *number_of_goroutine*] }

cpu-percent *cpu_percentage*

Specify the CPU percentage.

Must be an integer.

Default Value: 60.

memory-in-mbs *memory*

Specify the memory in MB.

Must be an integer.

Default Value: 1024.

num-of-goroutine *number_of_goroutine*

Specify the number of goroutine per core.

Must be an integer.

Default Value: 35000.

Usage Guidelines

Use this command to configure system health critical parameters.

instance instance-id endpoint ep system-health-level warn

Configures system health warn parameters.

Command Modes Exec > Global Configuration (config) > Instance Configuration (config-instance-id-*instance_id*) > Endpoint Configuration (config-endpoint-*endpoint_type*)

Syntax Description **system-health-level warn** { [**cpu-percent** *cpu_percentage*] [**memory-in-mbs** *memory*] [**num-of-goroutine** *number_of_goroutine*] }

cpu-percent *cpu_percentage*

Specify the CPU percentage.

Must be an integer.

Default Value: 50.

memory-in-mbs *memory*

Specify the memory in MBs.

Must be an integer.

Default Value: 512.

num-of-goroutine *goroutine_per_core*

Specify the number of goroutine per core.

Must be an integer.

Default Value: 25000.

Usage Guidelines Use this command to configure system health warn parameters.

instance instance-id endpoint ep vip

Configures VIP parameters.

Command Modes

Exec > Global Configuration (config) > Instance Configuration (config-instance-id-*instance_id*) > Endpoint Configuration (config-endpoint-*endpoint_type*)

Syntax Description

vip-ip *vip_ipv4_address* [[**offline**] [**vip-interface** *vip_interface_name*] [**vip-port** *port_number*]]

offline

Specify the VIP-IP as offline.

vip-interface *vip_interface_name*

Specify the interface name to advertise BGP router.

Must be a string.

vip-ip *vip_ipv4_address*

Specify the VIP IPv4 address.

Must be a string.

vip-port *port_number*

Specify the port number.

Must be an integer.

Usage Guidelines

Use this command to configure VIP parameters.

instance instance-id endpoint ep vip6

Configures VIP IPv6 parameters.

Command Modes Exec > Global Configuration (config) > Instance ID Configuration (config-instance-id-*instance_id*) > Endpoint *endpoint_type* Configuration (config-endpoint-*endpoint_type*)

Syntax Description **vip-ipv6** *vip_ipv6_detail* [[**offline**] [**vip-ipv6-port** *vip_ipv6_port_number*]]

offline

Specify the VIP-IP as offline.

vip-ipv6-port *vip_ipv6_port_number*

Specify the port number.

Must be an integer.

vip-ipv6 *vip_ipv6_detail*

Specify the IPv6 detail.

Must be a string.

Usage Guidelines Use this command to configure VIP IPv6 parameters.

instance instance-id vip-ip vip-port fqdn

Configures the fqdn for AMF instance.

Command Modes

Exec > Global Configuration (config) > Instance Configuration (config-instance-instance-id-*instance_id*)

Syntax Description

endpoint *endpoint_name* { **uri-scheme** *uri_scheme_name* | **vip-ip** *ip_address* | **vip-port** *port_number* | **fqdn** *fqdn_address* }

endpoint *endpoint_name* { **uri-scheme** *uri_scheme_name* | **vip-ip** *ip_address* | **vip-port** *port_number* | **fqdn** *fqdn_address* }

- **endpoint** *endpoint_name* —Specify the endpoint for the instance.
- **uri-scheme** *uri_scheme_name* —Specify the URI scheme name.
- **vip-ip** *ip_address* —Specify the VIP IP address for the endpoint.
- **vip-port** *port_number* —Specify the VIP IP port for the endpoint.
- **fqdn** *fqdn_address* —Specify the fqdn name for the endpoint.

Usage Guidelines

Use this command to configure the fqdn for the AMF instance.

instances instance

Configures instance configuration parameters.

Command Modes	Exec > Global Configuration (config)
Syntax Description	instances instance <i>instance_id</i> [[cluster-id <i>cluster_id</i>] [system-id <i>system_id</i>] [slice-name <i>slice_name</i>]] cluster-id <i>cluster_id</i> Specify the instance cluster ID. Must be a string. instance <i>instance_id</i> Specify the instance ID. Must be an integer in the range of 1-8. slice-name <i>slice_name</i> Specify the CDL slice name associated with instance ID. Must be a string. system-id <i>system_id</i> Specify the instance system ID. Must be a string.
Usage Guidelines	Use this command to configure instance configuration parameters.

job

Suspends the jobs that are running in the background.

Command Modes Exec

Syntax Description `job stop job_id`

job_id

Specify the job ID.

Must be an integer.

Usage Guidelines Use this command to suspend the jobs that are running in the background.

k8 amf local etcd endpoint

Configures AMF local Etcd endpoint parameters.

Command Modes

Exec > Global Configuration (config)

Syntax Description

amf local etcd endpoint host *host_name* **port** *port_number*

host *host_name*

Specify the host name.

Must be a string.

Default Value: etcd.

port *port_number*

Specify the port number.

Must be an integer.

Default Value: 2379.

Usage Guidelines

Use this command to configure AMF local Etcd endpoint parameters.

k8 label pod-group-config

Configures K8 node affinity label pod group configuration.

Command Modes

Exec > Global Configuration (config)

Syntax Description

k8 label *pod_group* **key** *label_key* **value** *label_value*

key *label_key*

Specify the key for the label.

Must be a string.

value *label_value*

Specify the value for the label.

Must be a string.

pod_group

Specify the pod group for the VMs.

Must be one of the following:

- **cdl-layer**
- **oam-layer**
- **protocol-layer**
- **service-layer**

Usage Guidelines

Use this command to configure K8 node affinity label pod group configuration.

k8 label sctp-layer

Configures AMF sctp-layer parameters.

Command Modes	Exec > Global Configuration (config)
Syntax Description	sctp-layer key <i>label_key</i> value <i>label_value</i> key <i>label_key</i> Specify the key for the label. Must be a string. value <i>label_value</i> Specify the value for the label. Must be a string.
Usage Guidelines	Use this command to configure sctp-layer parameters.

k8s single-node

Enables AMF to be deployed in single node.

Command Modes

Exec > Global Configuration (config)

Syntax Description

k8s single-node { false | true }

single-node { false | true }

Specify whether to enable or disable single-node deployment of AMF.

Must be one of the following:

- **false**
- **true**

Default Value: false.

If **k8s single-node true** is configured, AMF pods can be deployed in a single node.

Single node deployment involves some additional configurations. For more information, contact your Cisco account representative.



Note AMF does not support dynamic changes to this command.

Usage Guidelines

Use this command to enable AMF to be deployed in single node.

leaf-prompting

Enables or disables automatically querying for leaf values.

Command Modes

Exec

Syntax Description

`leaf-prompting { false | true }`

`{ false | true }`

Specify false to disable leaf prompting, true to enable.
Must be either "false" or "true".

Usage Guidelines

Use this command to automatically query for leaf values.

license smart register

Registers the VNF for Smart Licensing.

Command Modes

Exec

Syntax Description

license smart register [force | idtoken *idtoken*]

register

Register the VNF for Smart Licensing.

force

Force registration of the agent.

idtoken

Specify the ID token to register the agent with.

Must be an integer.

Usage Guidelines

Use this command to register the VNF for Smart Licensing.

license smart deregister

Deregisters the VNF for Smart Licensing.

Command Modes

Exec

Syntax Description

`license smart deregister`

deregister

Deregisters the VNF for Smart Licensing.

Usage Guidelines

Use this command to deregister the VNF for Smart Licensing.

license smart renew

Renews smart agent IDs and authentication.

Command Modes

Exec

Syntax Description

license smart renew { ID | auth }

renew

Renews the smart agent IDs and authentication.

ID

Specify the ID to renew smart agent license registration information.

auth

Specify to initiate a manual update of the license usage information with Cisco.

Usage Guidelines

Use this command to renew the smart agent IDs and authentication.

license smart status

Displays the smart licensing status information.

Command Modes

Exec

Syntax Description

`license smart status status-only { true | false }`

status

Displays the smart licensing information.

status-only

Displays only the status information.

Must be one of the following:

- false
- true

Usage Guidelines

Use this command to view the smart licensing status information.

local-instance

Configures GR instance for current instance.

Command Modes

Exec > Global Configuration

Syntax Description

local-instance instance *gr_instance_id*

instance *gr_instance_id*

Specify the GR instance ID of current instance.

Usage Guidelines

Use this command to configure GR instance for current instance.

local-cause-code-map auth-failure

Configures the UE authentication failure condition type parameter.

Command Modes	Exec > Global Configuration (config)
Syntax Description	local-cause-code-map auth-failure cause-code-5gmm <i>cause_code_5gmm</i> cause-code-5gmm <i>cause_code_5gmm</i> Specify the condition type. Must be one of the following: • illegal-ms • no-suitable-cells-in-tracking-area • plmn-not-allowed • restricted-service-area • roaming-not-allowed-in-this-tracking-area • tracking-area-not-allowed Default Value: illegal-ms.
Usage Guidelines	Use this command to configure the UE authentication failure condition type parameter.

local-cause-code-map clear-subscriber

Configures the UE subscriber clear condition type.

Command Modes

Exec > Global Configuration (config)

Syntax Description

local-cause-code-map clear-subscriber cause-code-5gmm *cause_code_5gmm*

cause-code-5gmm *cause_code_5gmm*

Specify the condition type.

Must be one of the following:

- **5GS-services-not-allowed**
- **no-suitable-cells-in-tracking-area**
- **plmn-not-allowed**
- **restricted-service-area**
- **roaming-not-allowed-in-this-tracking-area**
- **tracking-area-not-allowed**

Default Value: plmn-not-allowed.

Usage Guidelines

Use this command to configure the UE subscriber clear condition type.

local-cause-code-map core-network-type-restriction

Configures a mapping of local cause codes to specific actions or responses. It allows the system to handle different scenarios or errors based on predefined cause codes, ensuring appropriate processing or signaling.

Command Modes Exec > Global Configuration (config)

Syntax Description `local-cause-code-map core-network-type-restriction cause-code-5gmm`
cause_code_5gmm

core-network-type-restriction cause-code-5gmm *cause_code_5gmm*

Restricts the core network type to 5GC. It ensures that the policies and configurations apply specifically to the 5G Core network, potentially affecting how certain services are managed or restricted within this network type.

Usage Guidelines Use this command to configure a mapping of local cause codes to specific actions or responses.

local-cause-code-map ctxt-xfer-fail

Configures the AMF context transfer failure condition type parameter.

Command Modes

Exec > Global Configuration (config) > AMF Services Configuration (config-amf-services-service_name)

Syntax Description

local-cause-code-map ctxt-xfer-fail cause-code-5gmm *cause_code_5gmm*

cause-code-5gmm *cause_code_5gmm*

Specify the condition type.

Must be one of the following:

- **no-suitable-cells-in-tracking-area**
- **plmn-not-allowed**
- **restricted-service-area**
- **roaming-not-allowed-in-this-tracking-area**
- **tracking-area-not-allowed**
- **ue-identity-not-derived**

Default Value: ue-identity-not-derived.

Usage Guidelines

Use this command to configure the AMF context transfer failure condition type parameter.

local-cause-code-map ctxt-xfer-fail-mme

Configures the MME context transfer failure condition type parameter.

Command Modes	Exec > Global Configuration (config)
Syntax Description	local-cause-code-map ctxt-xfer-fail-mme cause-code-5gmm <i>cause_code_5gmm</i> cause-code-5gmm <i>cause_code_5gmm</i> Specify the condition type. Must be one of the following: • no-suitable-cells-in-tracking-area • plmn-not-allowed • restricted-service-area • roaming-not-allowed-in-this-tracking-area • tracking-area-not-allowed • ue-identity-not-derived Default Value: ue-identity-not-derived.
Usage Guidelines	Use this command to configure the MME context transfer failure condition type parameter.

local-cause-code-map dnn-mismatch

Configures the DNN mismatch condition type parameter.

Command Modes

Exec > Global Configuration (config)

Syntax Description

local-cause-code-map dnn-mismatch cause-code-5gmm *cause_code_5gmm*

cause-code-5gmm *cause_code_5gmm*

Specify the condition type.

Must be one of the following:

- **no-suitable-cells-in-tracking-area**
- **plmn-not-allowed**
- **restricted-service-area**
- **roaming-not-allowed-in-this-tracking-area**
- **tracking-area-not-allowed**

Default Value: plmn-not-allowed.

Usage Guidelines

Use this command to configure the DNN mismatch condition type parameter.

local-cause-code-map dnn-not-subscribed

Configures the DNN not subscribed condition type parameter.

Command Modes	Exec > Global Configuration (config)
Syntax Description	local-cause-code-map dnn-not-subscribed cause-code-5gmm <i>cause_code_5gmm</i> cause-code-5gmm <i>cause_code_5gmm</i> Specify the condition type. Must be one of the following: • dnn-not-subscribed Default Value: dnn-not-subscribed.
Usage Guidelines	Use this command to configure the DNN not subscribed condition type parameter.

local-cause-code-map gw-unreachable

Configures the gw unreachable condition type parameter.

Command Modes

Exec > Global Configuration (config)

Syntax Description

local-cause-code-map gw-unreachable cause-code-5gmm *cause_code_5gmm*

cause-code-5gmm *cause_code_5gmm*

Specify the condition type.

Must be one of the following:

- **no-suitable-cells-in-tracking-area**
- **plmn-not-allowed**
- **restricted-service-area**
- **roaming-not-allowed-in-this-tracking-area**
- **tracking-area-not-allowed**

Default Value: no-suitable-cells-in-tracking-area.

Usage Guidelines

Use this command to configure the gw unreachable condition type parameter.

local-cause-code-map ims-vops-failure

Configures a mapping between the local cause code and ims-vops-failure.

Command Modes Exec > Global Configuration (config)

Syntax Description `local-cause-code-map ims-vops-failure cause-code-5gmm cause_code_5gmm`

`ims-vops-failure cause-code-5gmm cause_code_5gmm`

Configures a mapping between a local cause code for IMS Voice over PS service failures and a specific 5GMM cause code. This mapping allows the system to translate or associate IMS VoPS failures with a relevant cause code recognized within the 5G Mobility Management framework. By doing so, it facilitates coherent handling and signaling of these failures across the network, enabling more effective management and troubleshooting of IMS-related issues.

Usage Guidelines Use this command to configure a mapping of local cause codes to ims-vops-failure.

local-cause-code-map inter-plmn-roaming

Configures the inter-PLMN roaming condition type parameter.

Command Modes

Exec > Global Configuration (config)

Syntax Description

local-cause-code-map inter-plmn-roaming cause-code-5gmm *cause_code_5gmm*

cause-code-5gmm *cause_code_5gmm*

Specify the condition type.

Must be one of the following:

- **5GS-services-not-allowed**
- **no-suitable-cells-in-tracking-area**
- **plmn-not-allowed**
- **restricted-service-area**
- **roaming-not-allowed-in-this-tracking-area**
- **tracking-area-not-allowed**

Default Value: plmn-not-allowed.

Usage Guidelines

Use this command to configure the inter-PLMN roaming condition type parameter.

local-cause-code-map peer-node-unknown

Configures the peer node no response condition type parameter.

Command Modes

Exec > Global Configuration (config)

Syntax Description

local-cause-code-map peer-node-unknown cause-code-5gmm *cause_code_5gmm*

cause-code-5gmm *cause_code_5gmm*

Specify the condition type.

Must be one of the following:

- **no-suitable-cells-in-tracking-area**
- **plmn-not-allowed**
- **restricted-service-area**
- **roaming-not-allowed-in-this-tracking-area**
- **tracking-area-not-allowed**
- **ue-identity-not-derived**

Default Value: ue-identity-not-derived.

Usage Guidelines

Use this command to configure the peer node no response condition type parameter.

local-cause-code-map rat-type-restriction

Configures a mapping between the local cause code and rat-type-restriction.

Command Modes

Exec > Global Configuration (config)

Syntax Description

local-cause-code-map rat-type-restriction cause-code-5gmm *cause_code_5gmm*

rat-type-restriction cause-code-5gmm *cause_code_5gmm*

Configures a mapping between local cause codes for RAT type restrictions and specific 5GMM cause codes. This configuration allows the system to handle scenarios where certain RAT types are restricted by associating them with a standardized 5GMM cause code. This ensures consistent communication and management of RAT type restrictions within the 5G network, helping to streamline operations and facilitate troubleshooting.

Usage Guidelines

Use this command to configure a mapping of local cause codes to rat-type-restriction.

local-cause-code-map registration-restriction

Configures a mapping of local cause codes to registration-restriction.

Command Modes	Exec > Global Configuration (config)
Syntax Description	local-cause-code-map registration-restriction cause-code-5gmm <i>cause_code_5gmm</i> registration-restriction cause-code-5gmm <i>cause_code_5gmm</i> Configures the mapping of local cause codes related to registration restrictions to specific 5GMM (5G Mobility Management) cause codes. This configuration helps the system to handle cases where registration attempts are restricted by associating them with a corresponding 5GMM cause code. This mapping ensures that the restrictions are communicated consistently and efficiently within the 5G network, aiding in proper signaling and management of registration-related issues.
Usage Guidelines	Use this command to configure a mapping of local cause codes to specific registration-restrictions.

local-cause-code-map restricted-zone-code

Configures the restricted zone code condition type parameter.

Command Modes	Exec > Global Configuration (config)
Syntax Description	local-cause-code-map restricted-zone-code cause-code-5gmm <i>cause_code_5gmm</i> cause-code-5gmm <i>cause_code_5gmm</i> Specify the condition type. Must be one of the following: • 5GS-services-not-allowed • no-suitable-cells-in-tracking-area • plmn-not-allowed • restricted-service-area • roaming-not-allowed-in-this-tracking-area • tracking-area-not-allowed Default Value: no-suitable-cells-in-tracking-area.
Usage Guidelines	Use this command to configure the restricted zone code condition type parameter.

local-cause-code-map smf-selection-failure

Configures the SMF selection failure condition type parameter.

Command Modes	Exec > Global Configuration (config)
Syntax Description	local-cause-code-map smf-selection-failure cause-code-5gmm <i>cause_code_5gmm</i> cause-code-5gmm <i>cause_code_5gmm</i> Specify the condition type. Must be one of the following: • no-suitable-cells-in-tracking-area • plmn-not-allowed • restricted-service-area • roaming-not-allowed-in-this-tracking-area • tracking-area-not-allowed Default Value: no-suitable-cells-in-tracking-area.
Usage Guidelines	Use this command to configure the SMF selection failure condition type parameter.

local-cause-code-map udm-unavailable

Configures the UDM not available condition type parameter.

Command Modes

Exec > Global Configuration (config)

Syntax Description

local-cause-code-map udm-unavailable cause-code-5gmm *cause_code_5gmm*

cause-code-5gmm *cause_code_5gmm*

Specify the condition type.

Must be one of the following:

- **no-suitable-cells-in-tracking-area**
- **plmn-not-allowed**
- **restricted-service-area**
- **roaming-not-allowed-in-this-tracking-area**
- **tracking-area-not-allowed**

Default Value: no-suitable-cells-in-tracking-area.

Usage Guidelines

Use this command to configure the UDM not available condition type parameter.

logging async application enable

Enables and configures async application logging.

Command Modes Exec > Global Configuration (config)

Syntax Description `logging async application { disable | enable buffer-size buffer_size }`

buffer-size *buffer_size*

Specify the buffer size for async logging.

Must be an integer.

Usage Guidelines Use this command to enable and configure async application logging.

logging async monitor-subscriber enable

Enables and configures async mon-sub logging.

Command Modes	Exec > Global Configuration (config)
Syntax Description	<pre>logging async monitor-subscriber { disable enable buffer-size <i>buffer_size</i> }</pre> buffer-size <i>buffer_size</i> Specify the buffer size for async logging. Must be an integer.
Usage Guidelines	Use this command to enable and configure async mon-sub logging.

logging async tracing enable

Enables and configures async tracing logging.

Command Modes

Exec > Global Configuration (config)

Syntax Description

logging async tracing { disable | enable buffer-size *buffer_size* }

buffer-size *buffer_size*

Specify the buffer size for async logging.

Must be an integer.

Usage Guidelines

Use this command to enable and configure async tracing logging.

logging async transaction enable

Enables and configures async transaction logging.

Command Modes

Exec > Global Configuration (config)

Syntax Description

logging async transaction { disable | enable buffer-size *buffer_size* }

buffer-size *buffer_size*

Specify the buffer size for async logging.

Must be an integer.

Usage Guidelines

Use this command to enable and configure async transaction logging.

logging error

Configures error logging parameters.

Command Modes Exec > Global Configuration (config)

Syntax Description `logging error stack status`

stack status

Specify to enable or disable error stack.

Must be one of the following:

- **disable**
- **enable**

Default Value: enable.

Usage Guidelines Use this command to configure error logging parameters.

logging json logging

Configures the JSON logging for different types of logs in the AMF.

Command Modes

Exec

Syntax Description

logging json-logging [application | monitor-subscriber | transaction]

application

Enables or disables JSON logging for application logs.

monitor-subscriber

Enables or disables JSON logging for subscriber monitoring logs.

transaction

Enables or disables JSON logging for transaction logs.

Usage Guidelines

Use this command to configure JSON logging for different types of logs in the AMF.

logging level

Configures the logging level.

Command Modes Exec > Global Configuration (config)

Syntax Description `logging level log_level`

application *application_log_level*

Specify the application logging level.

Must be one of the following:

- debug
- error
- info
- off
- trace
- warn

monitor-subscriber *monitor_subscriber_log_level*

Specify the monitor subscriber logging level.

Must be one of the following:

- debug
- error
- info
- off
- trace
- warn

tracing *tracing_log_level*

Specify the tracing logging level.

Must be one of the following:

- debug
- error
- info
- off

- trace
- warn

transaction *transaction_log_level*

Specify the transaction logging level.

Must be one of the following:

- debug
- error
- info
- off
- trace
- warn

Usage Guidelines

Use this command to configure the logging level.

logging logger

Configures the log name.

Command Modes	Exec > Global Configuration (config)
----------------------	--------------------------------------

Syntax Description	logging name <i>log_name</i>
---------------------------	-------------------------------------

name *log_name*

Specify the log name in "module.component.interface" format.

Must be a string.

Usage Guidelines	Use this command to configure the log name.
-------------------------	---

logging logger level

Configures the logging level.

Command Modes

Exec > Global Configuration (config)

Syntax Description

logging level *log_type_options*

application *application_log_level*

Specify the application logging level.

Must be one of the following:

- debug
- error
- info
- off
- trace
- warn

monitor-subscriber *monitor_subscriber_log_level*

Specify the monitor subscriber logging level.

Must be one of the following:

- debug
- error
- info
- off
- trace
- warn

tracing *tracing_log_level*

Specify the tracing logging level.

Must be one of the following:

- debug
- error
- info
- off

- trace
- warn

transaction *transaction_log_level*

Specify the transaction logging level.

Must be one of the following:

- debug
- error
- info
- off
- trace
- warn

Usage Guidelines

Use this command to configure the logging level.

logging transaction

Configures the logging transaction parameters.

Command Modes

Exec > Global Configuration (config)

Syntax Description

```
logging transaction { [ duplicate { disable | enable } ] [ message {
disable | enable } ] [ persist { disable | enable [ max-file-size
max_file_size ] [ max-rotation max_rotations ] } ] }
```

duplicate { enable | disable }

Specify whether to enable or disable duplicate logs in transaction logging.

Must be one of the following:

- **disable**
- **enable**

Default Value: disable.

max-file-size max_file_size

Specify the maximum transaction file size in MB.

Must be an integer in the range of 1-10000.

Default Value: 50.

max-rotation max_rotations

Specify the maximum number of file rotations.

Must be an integer in the range of 2-1000.

Default Value: 10.

message { enable | disable }

Specify whether to enable or disable messages in transaction logging.

Must be one of the following:

- **disable**
- **enable**

Default Value: disable.

persist { enable | disable }

Specify whether to enable or disable file-based transaction logging.

Must be one of the following:

- **disable**

- **enable**

Default Value: disable.

Usage Guidelines Use this command to configure the logging transaction parameters.

logout

Logout a specific session or a specific user from all sessions.

Command Modes

Exec

Syntax Description

logout [**session** *session_id* | **user** *user_name*]

session *session_id*

Specify the session ID from the possible completion options.

Must be a string.

user *user_name*

Specify the user name or the user process from the possible completion options.

Must be a string.

Usage Guidelines

Use this command to log out a specific session or a specific user from all sessions.

monitor protocol

Configures the AMF to monitor the protocol.

Command Modes

Exec

Syntax Description

monitor protocol [**interface** *interface_name* [**capture-duration** *duration* | **gr-instance** *gr_instance* | **pcap**]]

interface *interface_name*

Specify the name of interface on which PCAP is captured.

Must be a string.

Must be one of the following:

- sbi
- pfcf
- gtpu
- gtpc
- gtp

capture-duration *duration*

Specify the duration, in seconds, during which PCAP is captured.

Must be an integer.

Default Value: 300 seconds

gr-instance *gr_instance*

Specify the GR instance ID.

pcap

Enable PCAP file generation.

Must be "yes" or "no".

Default Value: no

Usage Guidelines

Use this command to monitor the protocol.

monitor subscriber

Configures the AMF to monitor the subscribers.

Command Modes

Exec

Syntax Description

```
monitor subscriber [ capture-duration duration | dump filename file_name |
supi supi | gr-instance gr_instance | imei subscriber_imei | imsi subscriber_imsi |
internal-messages [ yes ] | list | namespace [ sgw | smf ] | [
capture-duration duration | gr-instance gr_instance | internal-messages [ yes
] | nf-service [ sgw | smf ] | transaction-logs [ yes ] ] | nf-service
[ sgw | smf ] | supi supi | transaction-logs [ yes ] ]
```

supi *supi*

Specify the subscriber identifier.

Must be a string.

capture-duration *duration*

Specify the duration, in seconds, during which PCAP is captured.

Must be an integer.

Default Value: 300 seconds

internal-messages

Set to yes to enable internal messages.

Default Value: disabled

transaction-logs

Set to yes to enable transaction logging.

Default Value: disabled

dump filename *file_name*

Specify the path of the file name to be dumped.

Must be a string.

list

List the monitored subscriber files.

Usage Guidelines

Use this command to monitor the subscribers.

no

Restores the command history cache size to its default setting. See the *history* command.

Command Modes	Exec
Syntax Description	<code>no history</code>
Usage Guidelines	Use this command to configure the command history cache size to its default setting. For more details, see the <i>history</i> command.

nf-tls ca certificates

Configures client certificates.

Command Modes

Exec > Global Configuration (config)

Syntax Description

nf-tls ca-certificates *certificate_name* **cert-data** *certificate_data*

nf-tls ca-certificates *certificate_name*

Specify the certificate name and data.

Must be a string.

cert-data *certificate_data*

Specify the certificate data in PEM format.

Must be a string.

Usage Guidelines

Use this command to configure client certificates.

nf-tls certificates

Configures server certificates.

Command Modes Exec > Global Configuration (config)

Syntax Description **nf-tls certificates** *certificate_name* **cert-data** *certificate_data* **private-key** *private_key_data*

nf-tls certificates *certificate_name*

Specify the certificate name and data.

Must be a string.

cert-data *certificate_data*

Specify the certificate data in PEM format.

Must be a string.

private-key *private_key_data*

Specify the certificate private key in PEM format.

Must be a string.

Usage Guidelines Use this command to configure server certificates.

nrf discovery-info discovery-filter

Displays NF discovery filter information.

Command Modes	Exec > Global Configuration
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Syntax Description	show discovery-filter
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Usage Guidelines	Use this command to view NF discovery filter information.
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nrf discovery-info discovery-filter nf-discovery-profile

Displays discovery profile information.

Command Modes	Exec > Global Configuration
Syntax Description	<code>show nf-discovery-profile</code>
Usage Guidelines	Use this command to view NF discovery profile information.

nrf discovery-info discovery-filter nf-discovery-profile nf-service

Displays NF service information.

Command Modes	Exec > Global Configuration
----------------------	-----------------------------

Syntax Description	show nf-service
---------------------------	------------------------

Usage Guidelines	Use this command to view NF service information.
-------------------------	--

nrf registration-info

Displays NRF registration information.

Command Modes

Exec

Syntax Description

`show nrf [ registration-info [ gr-instance gr_instance ] ]`

gr-instance *gr_instance*

Specify the GR instance ID.

Must be a string.

Usage Guidelines

Use this command to view registration information.

nrf subscription-info

Displays NF subscription information.

Command Modes

Exec > Global Configuration

Syntax Description

show nrf subscription-info

Usage Guidelines

Use this command to view NF subscription information.

operator-policy network-element-profile-list scp

Configures the network element profiles with specific policies in a given environment.

Command Modes

Exec > Global Configuration (config) > Operator Policy Configuration
(config-operator-policy-operator_policy_name)

Syntax Description

network-element-profile-list scp *profile_name*

network-element-profile-list scp *profile_name*

Specify the profile name for the network element list.

Usage Guidelines

Use this command to configure a policy with a network element profile.

paginate

Configures whether or not to paginate CLI command output.

Command Modes

Exec

Syntax Description

paginate { true | false }

{ true | false }

Specify false to disable paginating CLI command output, and true to enable.

Must be either "false" or "true".

Usage Guidelines

Use this command to paginate the command output.

patch amf-ngap-ep

Configures patch amf-ngap-ep parameter.

Command Modes	Exec > Global Configuration (config)
Syntax Description	patch amf-ngap-ep patch-url <i>patch_url</i> patch-url <i>patch_url</i> Specify the patch URL. Must be a string.
Usage Guidelines	Use this command to configure patch amf-ngap-ep parameter.

patch amf-rest-ep

Configures patch AMF REST endpoint.

Command Modes

Exec > Global Configuration (config)

Syntax Description

patch amf-rest-ep patch-url *patch_url*

patch-url *patch_url*

Specify the patch URL.

Must be a string.

Usage Guidelines

Use this command to configure patch AMF REST endpoint.

patch amf-sctp-lb

Configures patch amf-sctp-lb parameter.

Command Modes	Exec > Global Configuration (config)
Syntax Description	patch amf-sctp-lb patch-url <i>patch_url</i> patch-url <i>patch_url</i> Specify the patch URL. Must be a string.
Usage Guidelines	Use this command to configure patch amf-sctp-lb parameter.

patch amf-service

Configures patch AMF service.

Command Modes

Exec > Global Configuration (config)

Syntax Description

patch amf-service patch-url *patch_url*

patch-url *patch_url*

Specify the patch URL.

Must be a string.

Usage Guidelines

Use this command to configure patch AMF service.

peers

Displays peer information.

Command Modes

Exec

Syntax Description

```
show peers { all { additionalDetails | connectedTime | direction |  
interfaceName | podInstance | rpc | type | vrf } | ipv4 { additionalDetails  
| connectedTime | direction | interfaceName | podInstance | rpc | type  
| vrf } | ipv6 { additionalDetails | connectedTime | direction |  
interfaceName | podInstance | rpc | type | vrf } }
```

Syntax Description

Displays the additional information about each peer. This information includes metrics, such as error rates and configuration specific details.

Syntax Description

Displays the duration for which the peer has been connected.

Syntax Description

Displays the direction of the peer connection. For example, inbound or outbound.

Syntax Description

Displays the name of the network interface through which the peer is connected.

Syntax Description

Displays the specific pod instance that the peer is connected to.

Syntax Description

Displays information related to Remote Procedure Calls (RPC) between peers.

Syntax Description

Displays the type of peer. For example, client, server, or router

Syntax Description

Displays the vrf details.

Usage Guidelines

Use this command to view peer information for all peers, ipv4, and ipv6.

profile compliance

Configures 3GPP compliance profile configuration.

Command Modes

Exec > Global Configuration (config)

Syntax Description

profile compliance *profile_name*

profile compliance *profile_name*

Specify name of the compliance profile.

Must be a string.

Usage Guidelines

Use this command to configure the 3GPP compliance profile configuration.

profile compliance service

Configures the AMF service names.

Command Modes	Exec > Global Configuration (config) > Compliance Profile Configuration (config-compliance- <i>profile_name</i>)
Syntax Description	service <i>service_name</i> <i>service_name</i> Specify the service names.
Usage Guidelines	Use this command to configure the AMF service names.

profile compliance service version spec

Configures the 3GPP specification version number.

Command Modes

Exec> Global Configuration (config)> Compliance Profile Configuration (config-compliance-*profile_name*)> Service (*service_name*)

Syntax Description

version spec *3gpp_spec_version*

version spec *3gpp_spec_version*

Specify the 3GPP specification version number.

Usage Guidelines

Use this command to configure the 3GPP specification version number.

profile emergency-profile emergency

Configures emergency profile parameters.

Command Modes	Exec > Global Configuration (config)
Syntax Description	profile emergency-profile <i>profile_name</i> [[dnn <i>dnn_name</i>] [ue-validation-level <i>ue_validation_level</i>]] dnn <i>dnn_name</i> Specify name of the DNN. Must be a string. emergency-profile <i>profile_name</i> Specify name of the profile. Must be a string. ue-validation-level <i>ue_validation_level</i> Specify the UE validation level. Must be one of the following: • auth-only: Specify to allow only authenticated UEs. Subscription is bypassed. • full: Specify to allow only authenticated UEs with subscription and location validated. Allow only UEs with Normal Registration. • none: Specify to allow any UE. UE without SUPI will attach using IMEI/PEI. Authentication is optional.. • supi-only: Specify to allow only UEs with SUPI. UE without SUPI will be rejected. Authentication is optional.
Usage Guidelines	Use this command to configure emergency profile parameters. The CLI prompt changes to the Emergency Profile Configuration mode (config-emergency-profile-<profile_name>).

profile emergency-profile emergency extended-emergency-num

Configures the extended emergency number parameters.

Command Modes Exec > Global Configuration (config) > Emergency Profile Configuration (config-emergency-profile-profile_name)

Syntax Description **extended-emergency-num** *extended_emergency_number* **sub-service** *emergency_number_sub_service_type*

extended-emergency-num *extended_emergency_number*

Specify the extended emergency number.
Must be a string of 1-10 characters.

sub-service *emergency_number_sub_service_type*

Specify the emergency number sub-service type.
Must be a string.

Usage Guidelines Use this command to configure extended emergency number parameters.
You can configure a maximum of 10 elements with this command.

profile emergency-profile emergency local-emergency-num

Configures local emergency number parameters.

Command Modes	Exec > Global Configuration (config) > Emergency Profile Configuration (config-emergency-profile- <i>profile_name</i>)
Syntax Description	local-emergency-num <i>emergency_number emergency_number_service_type</i> <i>emergency_number</i> Specify the emergency number. Must be a string of 1-10 characters. <i>emergency_number_service_type</i> Specify the emergency number service type. Must be one of the following: • ambulance • fire • marine-guard • mountain-rescue • police

Usage Guidelines	Use this command to configure local emergency number parameters. You can configure a maximum of 10 elements with this command.
-------------------------	--

profile emergency-profile emergency nssai

Configures slice for subscriber parameters.

Command Modes Exec > Global Configuration (config) > Emergency Profile Configuration (config-emergency-profile-*profile_name*)

Syntax Description **nssai** *slice_name* [**sst** *slice_service_type*]

nssai *slice_name*

Specify name of the slice.
Must be a string.

sst *slice_service_type*

Specify the Slice Service Type (SST).
Must be an integer in the range of 0-255.

Usage Guidelines Use this command to configure slice for subscriber parameters.

profile network-element amf

Configures the peer AMF network element configuration parameters.

Command Modes	Exec > Global Configuration (config)
Syntax Description	profile network-element amf <i>peer_amf_config_name</i> [[nf-client-profile <i>nf_client_profile_name</i>] [failure-handling-profile <i>failure_handling_profile_name</i>]] failure-handling-profile <i>failure_handling_profile_name</i> Specify name of the failure handling profile. Must be a string. nf-client-profile <i>nf_client_profile_name</i> Specify name of the NF client profile. Must be a string. peer_amf_config_name Specify name of the AMF peer configuration. Must be a string.
Usage Guidelines	Use this command to configure the peer AMF network element configuration parameters. The CLI prompt changes to the AMF NE Configuration mode (config-amf-<amf_name>).

profile network-element amf query-params

Configures query parameters for AMF discovery.

Command Modes	Exec > Global Configuration (config) > AMF NE Configuration mode (config-amf- <i>amf_name</i>)
----------------------	---

Syntax Description	query-params <i>amf_query_params</i>
---------------------------	---

query-params *amf_query_params*

Specify the AMF query parameters.

Must be one of the following:

- **amf-set-id**
- **amf-region-id**
- **guami**
- **requester-plmn**
- **snssais**
- **target-nf-instance-id**
- **tai**
- **target-plmn**

Usage Guidelines	Use this command to configure query parameters for AMF discovery.
-------------------------	---

profile network-element ausf

Configures peer AUSF parameters.

Command Modes Exec > Global Configuration (config)

Syntax Description **profile network-element ausf** *peer_ausf_config_name* **nf-client-profile** *nf_client_profile_name* **failure-handling-profile** *fh_profile_name*

failure-handling-profile *fh_profile_name*

Specify name of the failure handling profile.

Must be a string.

nf-client-profile *nf_client_profile_name*

Specify name of the NF client profile.

Must be a string.

peer_ausf_config_name

Specify name of the peer AUSF configuration.

Must be a string.

Usage Guidelines Use this command to configure peer AUSF parameters.

profile network-element ausf query-params

Configures query parameter for AUSF discovery.

Command Modes	Exec > Global Configuration (config) > AUSF Peer Configuration (config-amf-peer_ausf_config_name)
----------------------	---

Syntax Description	query-params <i>amf_ausf_query_params</i>
---------------------------	--

query-params *amf_ausf_query_params*

Specify the AMF AUSF query parameters.

Must be one of the following:

- requester-plmn
- routing-indicator
- supi
- target-plmn

Usage Guidelines	Use this command to configure query parameter for AUSF discovery.
-------------------------	---

profile network-element eir

Configures the EIR network element profile list.

Command Modes Exec > Global Configuration (config)

Syntax Description `profile network-element eir eir_name`

profile network-element eir *eir_name*

Specify the name of EIR with the network element profile.

Usage Guidelines Use this command to configure the EIR with the network element profile.

profile network element eir query params

Configures query parameter for EIR discovery.

Command Modes

Exec > Global Configuration (config) > Profile Network Element EIR (config-**profile network-element eir** *eir_profile_network_element_name*)

Syntax Description

query-params [**target-plmn**]

query-params [**target-plmn**]

Specifies the target Public Land Mobile Network (PLMN). This defines the particular mobile network to which the EIR queries are directed, allowing the EIR to check equipment statuses relevant to that specific network.

Usage Guidelines

Use this command to configure query parameter for EIR discovery.

profile network-element gmlc

Configures the GMLC network element profile list.

Command Modes	Exec > Global Configuration (config)
Syntax Description	profile network-element gmlc <i>gmlc_name</i> nf-client-profile <i>nf_client_profile_name</i> failure-handling-profile <i>fh_profile_name</i> profile network-element gmlc <i>gmlc_name</i> Specify the name of GMLC with the network element profile. nf-client-profile <i>nf_client_profile_name</i> Specify name of the NF client profile. Must be a string. failure-handling-profile <i>fh_profile_name</i> Specify name of the failure handling profile. Must be a string.
Usage Guidelines	Use this command to configure the GMLC with the network element profile.

profile network-element gmlc query-params

Configures query parameters for GMLC discovery.

Command Modes	Exec > Global Configuration (config) > GMLC NE Configuration mode (config-amf- <i>gmlc_name</i>)
----------------------	---

Syntax Description	query-params <i>gmlc_query_params</i>
---------------------------	--

query-params *gmlc_query_params*

Specify the GMLC query parameters.

Must be one of the following:

- **client-type**
- **target-plmn**

Usage Guidelines	Use this command to configure query parameters for GMLC discovery.
-------------------------	--

profile network-element lmf

Configures the LMF network element profile list.

Command Modes	Exec > Global Configuration (config)
Syntax Description	profile network-element lmf <i>lmf_name</i> nf-client-profile <i>nf_client_profile_name</i> failure-handling-profile <i>fh_profile_name</i> profile network-element lmf <i>lmf_name</i> Specify the name of LMF with the network element profile. nf-client-profile <i>nf_client_profile_name</i> Specify name of the NF client profile. Must be a string. failure-handling-profile <i>fh_profile_name</i> Specify name of the failure handling profile. Must be a string.
Usage Guidelines	Use this command to configure the LMF with the network element profile.

profile network-element lmf query-params

Configures query parameters for LMF discovery.

Command Modes	Exec > Global Configuration (config) > LMF NE Configuration mode (config-amf- <i>lmf_name</i>)
----------------------	---

Syntax Description	query-params <i>lmf_query_params</i>
---------------------------	---

query-params *lmf_query_params*

Specify the LMF query parameters.

Must be one of the following:

- **target-plmn**
- **snssais**
- **an-nodetype**
- **rat-type**
- **client-type**
- **lmf-id**

Usage Guidelines	Use this command to configure query parameters for LMF discovery.
-------------------------	---

profile-network-element nf-selection-model-priority

Configures a network element profile with NF selection model and its priority parameters.

Command Modes

Exec > Global Configuration (config) > Network Element Configuration
(config-network-element-network_element_profile_name)

Syntax Description

```
{ nf-client-profile nf_client_profile_name | failure-handling-profile  
failure_handling_profile_name | nf-selection-model priority nf_model_priority [  
local | nrf-query | scp ] | query-params [queryparam1 queryparam2] }
```

```
{ nf-client-profile nf_client_profile_name | failure-handling-profile failure_handling_profile_name |  
nf-selection-model priority nf_model_priority [ local | nrf-query | scp ] | query-params [queryparam1  
queryparam2] }
```

- **nf-client-profile** *nf_client_profile_name* —Specify the NF client profile associated with the network element.
- **failure-handling-profile** *failure_handling_profile_name* —Specify the failure handling profile for the network element.
- **nf-selection-model priority** *nf_model_priority* [**local** | **nrf-query** | **scp**]—Specify the NF selection model and its priority.

nf-selection-model 1 scp

- **query-params** [queryparam1 queryparam2]—Specify the query parameters to be used.

Usage Guidelines

Use this command to configure the NF selection model and its priority.

profile network-element nssf

Configures peer NSSF parameters.

Command Modes

Exec > Global Configuration (config)

Syntax Description

profile network-element nssf *peer_nssf_config_name* **nf-client-profile**
nf_client_profile_name **failure-handling-profile** *fh_profile_name*

failure-handling-profile *fh_profile_name*

Specify name of the failure handling profile.

Must be a string.

nf-client-profile *nf_client_profile_name*

Specify name of the NF client profile.

Must be a string.

peer_nssf_config_name

Specify name of the NSSF peer configuration.

Must be a string.

Usage Guidelines

Use this command to configure peer NSSF parameters.

profile network-element nssf query-params

Configures query parameters for NSSF discovery.

Command Modes Exec > Global Configuration (config) > NSSF Peer Configuration (config-nssf-peer_nssf_config_name)

Syntax Description **query-params** *query_parameters*

query-params *query_parameters*

Specify NRF query parameters.

Must be one of the following:

- requester-plmn
- tai
- target-plmn

Usage Guidelines Use this command to configure query parameters for NSSF discovery.

profile network-element pcf

Configures peer PCF parameters.

Command Modes

Exec > Global Configuration (config)

Syntax Description

profile network-element pcf *peer_pcf_config_name* **nf-client-profile**
nf_client_profile_name **failure-handling-profile** *failure_handling_profile_name*

failure-handling-profile *failure_handling_profile_name*

Specify name of the failure handling profile.

Must be a string.

nf-client-profile *nf_client_profile_name*

Specify name of the NF client profile.

Must be a string.

peer_pcf_config_name

Specify name of the PCF peer configuration.

Must be a string.

Usage Guidelines

Use this command to configure the peer PCF parameters.

profile network-element pcf query-params

Configures query parameters for PCF discovery.

Command Modes	Exec > Global Configuration (config) > PCF Peer Configuration (config-pcf-peer_pcf_config_name)
----------------------	---

Syntax Description	query-params <i>query_parameters</i>
---------------------------	---

query-params *query_parameters*

Specify NRF query parameters.

Must be one of the following:

- requester-plmn
- snssais
- supi
- tai
- target-plmn

Usage Guidelines	Use this command to configure query parameters for PCF discovery.
-------------------------	---

- **fqdn-port** *fqdn_port* —Specify the fqdn port. fqdn port is an optional configuration.



Note If SCP peer FQDN is known, you can configure FQDN instead of primary/secondary IP address.

Usage Guidelines

Use this command to configure an NF client profile name with specific locality, scp and fqdn service, and endpoint configurations.

profile network-element scp

Configures the network element profiles with specific NF client and failure handling profiles and SCP discovery params.

Command Modes

Exec > Global Configuration (config) > Network Element Profile Configuration (config-profile network-element scp-scp_profile_name)

Syntax Description

nf-client-profile *client_profile_name* **failure-handling-profile** *failure_handling_profile_name* **discovery-params** [*service-names*]

nf-client-profile *client_profile_name*

Specify the SCP client profile. *client_profile_name* must be an alphanumeric string representing the corresponding NF client profile name.

failure-handling-profile *failure_handling_profile_name*

Specify the SCP failure handling network profile for the configured SCP. *failure_handling_profile_name* must be an alphanumeric string representing the corresponding SCP failure handling network profile name.

discovery-params [*service-names*]

Specify the service name for discovery. The "3gpp-Sbi-Discovery-service-names" HTTPheader is sent as a plain string to the SCP, but only when you configure the **discovery-params** [*service-names*] within the SCP network element profile.

3gpp-sbi-discovery-service-names : nsmf-pdusession

Usage Guidelines

Use this command to configure a network element profile name with an NF client profile and a failure handling profile.

profile network-element smf

Configures SMF peer parameters.

Command Modes Exec > Global Configuration (config)

Syntax Description **profile network-element smf** *peer_smf_config_name* **nf-client-profile**
nf_client_profile_name **failure-handling-profile** *fh_profile_name*

failure-handling-profile *fh_profile_name*

Specify name of the failure handling profile.

Must be a string.

nf-client-profile *nf_client_profile_name*

Specify name of the NF client profile.

Must be a string.

peer_smf_config_name

Specify name of the SMF peer configuration.

Must be a string.

Usage Guidelines Use this command to configure SMF peer parameters.

profile network-element smf query-params

Configures query parameter for SMF discovery.

Command Modes

Exec > Global Configuration (config) > SMF Peer Configuration (config-smf-peer_smf_config_name)

Syntax Description

query-params *query_parameters*

query-params *smf_query_params*

Specify the SMF query parameters.

Must be one of the following:

- **dnn**
- **pgwfqdn**
- **pgwind**
- **requester-plmn**
- **snssais**
- **tai**
- **target-plmn**

Usage Guidelines

Use this command to configure query parameter for SMF discovery.

profile nf-client nf-type smsf

Configures SMSF parameters.

Command Modes Exec > Global Configuration (config)

Syntax Description **profile network-element smsf** *peer_smsf_config_name* **nf-client-profile** *nf_client_profile_name* { **locality** *locality_name* | **priority** *priority_value* | **service name type** nsmsf-sms | **endpoint-profile** *endpoint_profile* | **capacity** *capacity_value* | **priority** *priority_value* | **uri-scheme** http version | **uri-version** v2 }

{ locality *locality_name* | priority *priority_value* | service name type nsmsf-sms | endpoint-profile *endpoint_profile* | capacity *capacity_value* | priority *priority_value* | uri-scheme http version | uri-version v2 }

profile network-element smsf

Specify name of the network element as SMSF.

nf-client-profile *nf_client_profile_name*

Specify name of the NF client profile.

Must be a string.

locality *locality_name*

Specify name of the locality.

Must be a string.

priority *priority_value*

Specify the priority value.

Must be an integer.

service name type nsmsf-sms

Specify name of the service type as nsmsf-sms.

Must be a string.

endpoint-profile *endpoint_profile*

Specify name of the endpoint profile.

Must be a string.

capacity *capacity_value*

Specify the capacity value.

Must be a string.

uri-scheme http version

Specify the HTTP version of the URI scheme.

uri-version v2

Specify the version for URI.

Usage Guidelines

Use this command to configure SMSF parameters.

profile network-element udm

Configures peer UDM parameters.

Command Modes Exec > Global Configuration (config)

Syntax Description **profile network-element udm** *peer_udm_config_name* **nf-client-profile** *nf_client_profile_name* **failure-handling-profile** *fh_profile_name*

failure-handling-profile *fh_profile_name*

Specify name of the failure handling profile.

Must be a string.

nf-client-profile *nf_client_profile_name*

Specify name of the NF client profile.

Must be a string.

peer_udm_config_name

Specify name of the UDM peer configuration.

Must be a string.

Usage Guidelines Use this command to configure peer UDM parameters.

profile network-element udm query-params

Configures query parameters for UDM discovery.

Command Modes

Exec > Global Configuration (config) > UDM Peer Configuration (config-udm-peer_udm_config_name)

Syntax Description

query-params *query_parameters*

query-params *amf_udm_query_params*

Specify the AMF UDM query parameters.

Must be one of the following:

- requester-plmn
- routing-indicator
- supi
- target-plmn

Usage Guidelines

Use this command to configure query parameters for UDM discovery.

profile nf-client nf-type amf amf-profile

Configures AMF profile parameters.

Command Modes	Exec > Global Configuration (config)
Syntax Description	profile nf-client nf-type amf { amf-profile <i>profile_name</i> { locality <i>locality_name</i> server-name <i>server_name</i> } oauthenabled { true false } } amf-profile <i>profile_name</i> Specify the AMF profile name Must be a string. locality <i>locality_name</i> Specify the locality. Must be a string. server-name <i>server_name</i> Specify the server name. Must be a string. oauthenabled { true false } Enable the oauthenabled profile configuration. The default value is false.
Usage Guidelines	Use this command to configure AMF profile parameters. The CLI prompt changes to the AMF Profile Configuration mode (config-amf-profile-<profile_name>).

profile nf-client nf-type amf amf-profile locality

Configures the AMF profile locality parameter.

Command Modes Exec > Global Configuration (config) > AMF Profile Configuration (config-amf-profile-*profile_name*)

Syntax Description **locality** *locality_name* [**priority** *locality_priority*]

locality *locality_name*

Specify name of the locality.
Must be a string.

priority *locality_priority*

Specify priority of the locality configuration.
Must be an integer in the range of 0-65535.

Usage Guidelines Use this command to configure the AMF profile locality parameter.

profile nf-client nf-type amf amf-profile locality service name type

Configures the AMF service name type parameter.

Command Modes Exec > Global Configuration (config) > AMF NF-Client Configuration (config-amf) > AMF Profile Configuration (config-amf-profile-*profile_name*) > Locality Configuration (config-locality-*locality_name*)

Syntax Description **service name type** *amf_service_name_type* **responsetimeout** *response_timeout*

responsetimeout *response_timeout*

Specify the response timeout interval in milliseconds.

Must be an integer.

Default Value: 2000.

type *amf_service_name_type*

Specify the service name type.

Must be one of the following:

- **namf-comm**
- **namf-evts**
- **namf-loc**
- **namf-mt**

Usage Guidelines Use this command to configure the AMF service name type parameter. The CLI prompt changes to the Service Name Type Configuration mode (config-type-<service_name_type>).

profile nf-client nf-type amf amf-profile locality service name type endpoint-profile

Configures endpoint profile parameters. This command is common to multiple NF clients, and is available in the following configuration modes.

Command Modes	Exec > Global Configuration (config) > AMF NF-Client Configuration (config-amf) > AMF Profile Configuration (config-amf-profile- <i>profile_name</i>) > Locality Configuration (config-locality- <i>locality_name</i>) > Service Name Type Configuration (config-type- <i>service_name_type</i>)
Syntax Description	endpoint-profile <i>endpoint_profile_name</i> { capacity <i>capacity_value</i> priority <i>profile_priority</i> api-uri-prefix <i>api_uri_prefix</i> api-root <i>api_root</i> uri-scheme <i>uri_scheme</i> } api-root <i>api_root</i> Specify the API root. Must be a string. api-uri-prefix <i>api_uri_prefix</i> Specify the API URI prefix. Must be a string. capacity <i>capacity_value</i> Specify the profile capacity. Must be an integer in the range of 0-65535. Default Value: 10. endpoint-profile <i>endpoint_profile_name</i> Specify name of the endpoint profile. Must be a string. priority <i>profile_priority</i> Specify the priority of the profile. Must be an integer in the range of 0-65535. Default Value: 1. uri-scheme <i>uri_scheme</i> Specify the URI scheme. Must be one of the following: • http: HTTP.

- **https:** HTTPS.

Usage Guidelines

Use this command to configure endpoint profile parameters. The CLI prompt changes to the Endpoint Profile Configuration mode (config-endpoint-profile-<profile_name>).

profile nf-client nf-type amf amf-profile locality service name type endpoint-profile endpoint-name

Configures the endpoint name parameters. This command is common to multiple NF clients, and is available in the following configuration modes.

Command Modes	Exec > Global Configuration (config) > AMF NF-Client Configuration (config-amf) > AMF Profile Configuration (config-amf-profile-profile_name) > Locality Configuration (config-locality-locality_name) > Service Name Type Configuration (config-type-service_name_type) > Endpoint Profile Configuration (config-endpoint-profile-profile_name)
Syntax Description	endpoint-name endpoint_name [priority node_priority capacity node_capacity] capacity node_capacity Specify the node capacity for the endpoint. Must be an integer in the range of 0-65535. endpoint-name endpoint_name Specify name of the endpoint. You can configure the primary, secondary, and tertiary host (IP: Port) within each endpoint for NF server failover handling. The server failover configuration accepts both IPv4 and IPv6 addresses. However, the SMF gives preference to the IPv4 address. Must be a string. priority node_priority Specify the node priority for the endpoint. Must be an integer in the range of 0-65535.
Usage Guidelines	Use this configuration to configure the endpoint name parameters. The CLI prompt changes to the Endpoint Name Configuration mode (config-endpoint-name-<endpoint_name>).

profile nf-client nf-type amf amf-profile locality service name type endpoint-profile endpoint-name default-notification-subscriptions

Configures the Default Notification Subscription parameters. This command is common to multiple NF clients, and is available in the following configuration modes.

Command Modes

Exec > Global Configuration (config) > AMF NF-Client Configuration (config-amf) > AMF Profile Configuration (config-amf-profile-*profile_name*) > Locality Configuration (config-locality-*locality_name*) > Service Name Type Configuration (config-type-*service_name_type*) > Endpoint Profile Configuration (config-endpoint-profile-*profile_name*) > Endpoint Name Configuration (config-endpoint-name-*endpoint_name*)

Syntax Description

default-notification-subscriptions *name* [**callback-uri** *callback_uri* | **n1-message-class** *n1_message_class* | **n2-information-class** *n2_information_class* | **notification-type** *notification_type*]

callback-uri *callback_uri*

Specify the callback URI.

Must be a string.

n1-message-class *n1_message_class*

Specify the N1 Message Class.

Must be one of the following:

- 5GMM

n2-information-class *n2_information_class*

Specify the N2 Information Class.

Must be one of the following:

- RAN

notification-type *notification_type*

Specify the notification type.

Must be one of the following:

- DATA_CHANGE_NOTIFICATION
- DATA_REMOVAL_NOTIFICATION
- LOCATION_NOTIFICATION
- N1_MESSAGES

profile nf-client nf-type amf amf-profile locality service name type endpoint-profile endpoint-name default-notification-subscriptions

- **N2_INFORMATION**

name

Specify the name of the default notification subscriptions.

Must be a string.

Usage Guidelines

Use this command to configure the Default Notification Subscription parameters. The CLI prompt changes to the Default Notification Subscriptions Configuration mode (config-default-notification-subscriptions-<name>)

profile nf-client nf-type amf amf-profile locality service name type endpoint-profile endpoint-name primary ip-address

Configures the endpoint IP address and port number parameters. This command is common to multiple NF clients, and is available in the following configuration modes.

Command Modes Exec > Global Configuration (config) > AMF NF-Client Configuration (config-amf) > AMF Profile Configuration (config-amf-profile-profile_name) > Locality Configuration (config-locality-locality_name) > Service Name Type Configuration (config-type-service_name_type) > Endpoint Profile Configuration (config-endpoint-profile-profile_name) > Endpoint Name Configuration (config-endpoint-name-endpoint_name)

Syntax Description { primary | secondary | tertiary } ip-address { [ipv4 ipv4_address | ipv6 ipv6_address] [port port_number] }

ipv4 ipv4_address

Specify the IPv4 address.
Must be a string in the ipv4-address pattern. For information on the ipv4-address pattern, see the Input Pattern Types section.

ipv6 ipv6_address

Specify the IPv6 address.
Must be a string in the ipv6-address pattern. For information on the ipv6-address pattern, see the Input Pattern Types section.

port port_number

Specify the port number.
Must be an integer in the range of 0-65535.

Usage Guidelines Use this command to configure the endpoint IP address and port number parameters.

profile nf-client nf-type amf amf-profile locality service name type endpoint-profile endpoint-name secondary ip-address

profile nf-client nf-type amf amf-profile locality service name type endpoint-profile endpoint-name secondary ip-address

Configures the endpoint IP address and port number parameters. This command is common to multiple NF clients, and is available in the following configuration modes.

Command Modes	Exec > Global Configuration (config) > AMF NF-Client Configuration (config-amf) > AMF Profile Configuration (config-amf-profile- <i>profile_name</i>) > Locality Configuration (config-locality- <i>locality_name</i>) > Service Name Type Configuration (config-type- <i>service_name_type</i>) > Endpoint Profile Configuration (config-endpoint-profile- <i>profile_name</i>) > Endpoint Name Configuration (config-endpoint-name- <i>endpoint_name</i>)
Syntax Description	{ primary secondary tertiary } ip-address { [ipv4 <i>ipv4_address</i> ipv6 <i>ipv6_address</i>] [port <i>port_number</i>] } ipv4 <i>ipv4_address</i> Specify the IPv4 address. Must be a string in the ipv4-address pattern. For information on the ipv4-address pattern, see the Input Pattern Types section. ipv6 <i>ipv6_address</i> Specify the IPv6 address. Must be a string in the ipv6-address pattern. For information on the ipv6-address pattern, see the Input Pattern Types section. port <i>port_number</i> Specify the port number. Must be an integer in the range of 0-65535.
Usage Guidelines	Use this command to configure the endpoint IP address and port number parameters.

profile nf-client nf-type amf amf-profile locality service name type endpoint-profile endpoint-name tertiary ip-address

Configures the endpoint IP address and port number parameters. This command is common to multiple NF clients, and is available in the following configuration modes.

Command Modes Exec > Global Configuration (config) > AMF NF-Client Configuration (config-amf) > AMF Profile Configuration (config-amf-profile-*profile_name*) > Locality Configuration (config-locality-*locality_name*) > Service Name Type Configuration (config-type-*service_name_type*) > Endpoint Profile Configuration (config-endpoint-profile-*profile_name*) > Endpoint Name Configuration (config-endpoint-name-*endpoint_name*)

Syntax Description { **primary** | **secondary** | **tertiary** } **ip-address** { [**ipv4** *ipv4_address* | **ipv6** *ipv6_address*] [**port** *port_number*] }

ipv4 *ipv4_address*

Specify the IPv4 address.

Must be a string in the ipv4-address pattern. For information on the ipv4-address pattern, see the Input Pattern Types section.

ipv6 *ipv6_address*

Specify the IPv6 address.

Must be a string in the ipv6-address pattern. For information on the ipv6-address pattern, see the Input Pattern Types section.

port *port_number*

Specify the port number.

Must be an integer in the range of 0-65535.

Usage Guidelines Use this command to configure the endpoint IP address and port number parameters.

profile nf-client nf-type amf amf-profile locality service name type endpoint-profile version uri-version

Configures the URI version parameter. This command is common to multiple NF clients, and is available in the following configuration modes.

Command Modes	Exec > Global Configuration (config) > AMF NF-Client Configuration (config-amf) > AMF Profile Configuration (config-amf-profile-profile_name) > Locality Configuration (config-locality-locality_name) > Endpoint Profile Configuration (config-endpoint-profile-profile_name)
Syntax Description	version uri-version { <i>uri_version</i> full-version <i>full_version</i> } full-version full_version Specify the full version in the format <i>major-version.minor-version.patch-version.[alpha-draft-number]</i> Must be a string. uri-version uri_version Specify the URI version. Must be a string in the pattern v\d.
Usage Guidelines	Use this command to configure the URI version parameter.

profile nf-client nf-type ausf ausf-profile

Configures AUSF profile parameters.

Command Modes Exec > Global Configuration (config)

Syntax Description `profile nf-client nf-type ausf { ausf-profile profile_name { locality locality_name | server-name server_name } | oauthenabled { true | false } }`

ausf-profile *profile_name*

Specify name of the AUSF profile.

Must be a string.

locality *locality_name*

Specify the locality.

Must be a string.

server-name *server_name*

Specify the server name.

Must be a string.

oauthenabled { true | false }

Enable the oauthenabled profile configuration.

The default value is false.

Usage Guidelines Use this command to configure AUSF profile parameters. The CLI prompt changes to the AUSF Profile Configuration mode (config-ausf-profile-<profile_name>).

profile nf-client nf-type ausf ausf-profile locality

Configures the AUSF profile locality parameter.

Command Modes

Exec > Global Configuration (config) > AUSF Profile Configuration (config-ausf-profile-*profile_name*)

Syntax Description

locality *locality_name* [**priority** *locality_priority*]

locality *locality_name*

Specify name of the locality.

Must be a string.

priority *locality_priority*

Specify priority of the locality configuration.

Must be an integer in the range of 0-65535.

Usage Guidelines

Use this command to configure the AUSF profile locality parameter.

profile nf-client nf-type ausf ausf-profile locality service name type

Configures the AUSF service name type parameter.

Command Modes Exec > Global Configuration (config) > AUSF NF-Client Configuration (config-ausf) > AUSF Profile Configuration (config-ausf-profile-*profile_name*) > Locality Configuration (config-locality-*locality_name*)

Syntax Description **service name type** *ausf_service_name_type* [**responsetimeout** *response_timeout*]

responsetimeout *response_timeout*

Specify the timeout interval in milliseconds.

Must be an integer.

Default Value: 2000.

type *ausf_service_name_type*

Specify the AUSF service name type.

Must be one of the following:

- **nausf-auth**

Usage Guidelines Use this command to configure the AUSF service name type parameter. The CLI prompt changes to the Service Name Type Configuration mode (config-type-<service_name_type>).

profile nf-client nf-type ausf ausf-profile locality service name type endpoint-profile

Configures endpoint profile parameters. This command is common to multiple NF clients, and is available in the following configuration modes.

Command Modes	Exec > Global Configuration (config) > AUSF NF-Client Configuration (config-ausf) > AUSF Profile Configuration (config-ausf-profile- <i>profile_name</i>) > Locality Configuration (config-locality- <i>locality_name</i>) > Service Name Type Configuration (config-type- <i>service_name_type</i>)
Syntax Description	endpoint-profile <i>endpoint_profile_name</i> { capacity <i>capacity_value</i> priority <i>profile_priority</i> api-uri-prefix <i>api_uri_prefix</i> api-root <i>api_root</i> uri-scheme <i>uri_scheme</i> } api-root <i>api_root</i> Specify the API root. Must be a string. api-uri-prefix <i>api_uri_prefix</i> Specify the API URI prefix. Must be a string. capacity <i>capacity_value</i> Specify the profile capacity. Must be an integer in the range of 0-65535. Default Value: 10. endpoint-profile <i>endpoint_profile_name</i> Specify name of the endpoint profile. Must be a string. priority <i>profile_priority</i> Specify the priority of the profile. Must be an integer in the range of 0-65535. Default Value: 1. uri-scheme <i>uri_scheme</i> Specify the URI scheme. Must be one of the following: • http: HTTP.

- **https:** HTTPS.

Usage Guidelines

Use this command to configure endpoint profile parameters. The CLI prompt changes to the Endpoint Profile Configuration mode (config-endpoint-profile-<profile_name>).

profile nf-client nf-type ausf ausf-profile locality service name type endpoint-profile endpoint-name

Configures the endpoint name parameters. This command is common to multiple NF clients, and is available in the following configuration modes.

Command Modes	Exec > Global Configuration (config) > AUSF NF-Client Configuration (config-ausf) > AUSF Profile Configuration (config-ausf-profile-profile_name) > Locality Configuration (config-locality-locality_name) > Service Name Type Configuration (config-type-service_name_type) > Endpoint Profile Configuration (config-endpoint-profile-profile_name)
Syntax Description	endpoint-name <i>endpoint_name</i> [priority <i>node_priority</i> capacity <i>node_capacity</i>] capacity <i>node_capacity</i> Specify the node capacity for the endpoint. Must be an integer in the range of 0-65535. endpoint-name <i>endpoint_name</i> Specify name of the endpoint. You can configure the primary, secondary, and tertiary host (IP: Port) within each endpoint for NF server failover handling. The server failover configuration accepts both IPv4 and IPv6 addresses. However, the SMF gives preference to the IPv4 address. Must be a string. priority <i>node_priority</i> Specify the node priority for the endpoint. Must be an integer in the range of 0-65535.
Usage Guidelines	Use this configuration to configure the endpoint name parameters. The CLI prompt changes to the Endpoint Name Configuration mode (config-endpoint-name-<endpoint_name>).

profile nf-client nf-type ausf ausf-profile locality service name type endpoint-profile endpoint-name default-notification-subscriptions

Configures the Default Notification Subscription parameters. This command is common to multiple NF clients, and is available in the following configuration modes.

Command Modes

Exec > Global Configuration (config) > AUSF NF-Client Configuration (config-ausf) > AUSF Profile Configuration (config-ausf-profile-*profile_name*) > Locality Configuration (config-locality-*locality_name*) > Service Name Type Configuration (config-type-service_name_type) > Endpoint Profile Configuration (config-endpoint-profile-*profile_name*) > Endpoint Name Configuration (config-endpoint-name-*endpoint_name*)

Syntax Description

default-notification-subscriptions *name* [**callback-uri** *callback_uri* | **n1-message-class** *n1_message_class* | **n2-information-class** *n2_information_class* | **notification-type** *notification_type*]

callback-uri *callback_uri*

Specify the callback URI.

Must be a string.

n1-message-class *n1_message_class*

Specify the N1 Message Class.

Must be one of the following:

- 5GMM

n2-information-class *n2_information_class*

Specify the N2 Information Class.

Must be one of the following:

- RAN

notification-type *notification_type*

Specify the notification type.

Must be one of the following:

- DATA_CHANGE_NOTIFICATION
- DATA_REMOVAL_NOTIFICATION
- LOCATION_NOTIFICATION
- N1_MESSAGES

profile nf-client nf-type ausf ausf-profile locality service name type endpoint-profile endpoint-name default-notification-subscriptions

- **N2_INFORMATION**

name

Specify the name of the default notification subscriptions.

Must be a string.

Usage Guidelines

Use this command to configure the Default Notification Subscription parameters. The CLI prompt changes to the Default Notification Subscriptions Configuration mode (config-default-notification-subscriptions-<name>)

profile nf-client nf-type ausf ausf-profile locality service name type endpoint-profile endpoint-name primary ip-address

Configures the endpoint IP address and port number parameters. This command is common to multiple NF clients, and is available in the following configuration modes.

Command Modes Exec > Global Configuration (config) > AUSF NF-Client Configuration (config-ausf) > AUSF Profile Configuration (config-ausf-profile-*profile_name*) > Locality Configuration (config-locality-*locality_name*) > Service Name Type Configuration (config-type-*service_name_type*) > Endpoint Profile Configuration (config-endpoint-profile-*profile_name*) > Endpoint Name Configuration (config-endpoint-name-*endpoint_name*)

Syntax Description { **primary** | **secondary** | **tertiary** } **ip-address** { [**ipv4** *ipv4_address* | **ipv6** *ipv6_address*] [**port** *port_number*] }

ipv4 *ipv4_address*

Specify the IPv4 address.

Must be a string in the ipv4-address pattern. For information on the ipv4-address pattern, see the Input Pattern Types section.

ipv6 *ipv6_address*

Specify the IPv6 address.

Must be a string in the ipv6-address pattern. For information on the ipv6-address pattern, see the Input Pattern Types section.

port *port_number*

Specify the port number.

Must be an integer in the range of 0-65535.

Usage Guidelines Use this command to configure the endpoint IP address and port number parameters.

profile nf-client nf-type ausf ausf-profile locality service name type endpoint-profile endpoint-name secondary ip-address

profile nf-client nf-type ausf ausf-profile locality service name type endpoint-profile endpoint-name secondary ip-address

Configures the endpoint IP address and port number parameters. This command is common to multiple NF clients, and is available in the following configuration modes.

Command Modes	Exec > Global Configuration (config) > AUSF NF-Client Configuration (config-ausf) > AUSF Profile Configuration (config-ausf-profile-<i>profile_name</i>) > Locality Configuration (config-locality-<i>locality_name</i>) > Service Name Type Configuration (config-type-service_name_type) > Endpoint Profile Configuration (config-endpoint-profile-<i>profile_name</i>) > Endpoint Name Configuration (config-endpoint-name-<i>endpoint_name</i>)
Syntax Description	<pre>{ primary secondary tertiary } ip-address { [ipv4 <i>ipv4_address</i> ipv6 <i>ipv6_address</i>] [port <i>port_number</i>] }</pre> ipv4 <i>ipv4_address</i> Specify the IPv4 address. Must be a string in the ipv4-address pattern. For information on the ipv4-address pattern, see the Input Pattern Types section. ipv6 <i>ipv6_address</i> Specify the IPv6 address. Must be a string in the ipv6-address pattern. For information on the ipv6-address pattern, see the Input Pattern Types section. port <i>port_number</i> Specify the port number. Must be an integer in the range of 0-65535.
Usage Guidelines	Use this command to configure the endpoint IP address and port number parameters.

profile nf-client nf-type ausf ausf-profile locality service name type endpoint-profile endpoint-name tertiary ip-address

Configures the endpoint IP address and port number parameters. This command is common to multiple NF clients, and is available in the following configuration modes.

Command Modes Exec > Global Configuration (config) > AUSF NF-Client Configuration (config-ausf) > AUSF Profile Configuration (config-ausf-profile-*profile_name*) > Locality Configuration (config-locality-*locality_name*) > Service Name Type Configuration (config-type-*service_name_type*) > Endpoint Profile Configuration (config-endpoint-profile-*profile_name*) > Endpoint Name Configuration (config-endpoint-name-*endpoint_name*)

Syntax Description { **primary** | **secondary** | **tertiary** } **ip-address** { [**ipv4** *ipv4_address* | **ipv6** *ipv6_address*] [**port** *port_number*] }

ipv4 *ipv4_address*

Specify the IPv4 address.

Must be a string in the ipv4-address pattern. For information on the ipv4-address pattern, see the Input Pattern Types section.

ipv6 *ipv6_address*

Specify the IPv6 address.

Must be a string in the ipv6-address pattern. For information on the ipv6-address pattern, see the Input Pattern Types section.

port *port_number*

Specify the port number.

Must be an integer in the range of 0-65535.

Usage Guidelines Use this command to configure the endpoint IP address and port number parameters.

```
profile nf-client nf-type ausf ausf-profile locality service name type endpoint-profile version uri-version
```

profile nf-client nf-type ausf ausf-profile locality service name type endpoint-profile version uri-version

Configures the URI version parameter. This command is common to multiple NF clients, and is available in the following configuration modes.

Command Modes

Exec > Global Configuration (config) > AUSF NF-Client Configuration (config-ausf) > AUSF Profile Configuration (config-ausf-profile-*profile_name*) > Locality Configuration (config-locality-*locality_name*) > Endpoint Profile Configuration (config-endpoint-profile-*profile_name*)

Syntax Description

version uri-version { *uri_version* | **full-version** *full_version* }

full-version *full_version*

Specify the full version in the format *major-version.minor-version.patch-version.[alpha-draft-number]*

Must be a string.

uri-version *uri_version*

Specify the URI version.

Must be a string in the pattern v\d.

Usage Guidelines

Use this command to configure the URI version parameter.

profile nf-client nf-type eir eir-profile

Configures EIR profile parameters.

Command Modes	Exec > Global Configuration (config)
Syntax Description	profile nf-client nf-type eir { eir-profile <i>profile_name</i> { locality <i>locality_name</i> server-name <i>server_name</i> } oauthenabled { true false } } eir-profile <i>eir_profile_name</i> Specify name of the EIR profile. Must be a string. locality <i>locality_name</i> Specify the locality. Must be a string. server-name <i>server_name</i> Specify the server name. Must be a string. oauthenabled { true false } Enable the oauthenabled profile configuration. The default value is false.
Usage Guidelines	Use this command to configure the EIR profile parameters. The CLI prompt changes to the EIR Profile Configuration mode (config-eir-profile-<profile_name>).

profile nf-client nf-type eir eir-profile locality

Configures the EIR profile locality parameter.

Command Modes	Exec > Global Configuration (config) > EIR NF-Client Configuration (config-eir) > EIR Profile Configuration (config-eir-profile- <i>profile_name</i>)
----------------------	--

Syntax Description	locality <i>locality_name</i> [priority <i>priority</i>]
---------------------------	--

locality *locality_name*

Specify name of the locality.

Must be a string.

priority *priority*

Specify the priority of the locality configuration.

Must be an integer in the range of 0-65535.

Usage Guidelines	Use this command to configure the EIR profile locality parameter.
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profile nf-client nf-type eir eir-profile locality service name type

Configures the EIR service name type parameter.

Command Modes Exec > Global Configuration (config) > EIR NF-Client Configuration (config-eir) > EIR Profile Configuration (config-eir-profile-*profile_name*) > Locality Configuration (config-locality-*locality_name*)

Syntax Description **service name type** *service_name_type* [**responsetimeout** *response_timeout_interval*]

responsetimeout *response_timeout_interval*

Specify the response timeout interval in milliseconds.

Must be an integer.

Default Value: 2000.

type *service_name_type*

Specify the EIR service name type.

Must be one of the following:

- **n5g-eir-eic**

Usage Guidelines Use this command to configure the EIR service name type parameter. The CLI prompt changes to the Service Name Type Configuration mode (config-type-<service_name_type>).

profile nf-client nf-type eir eir-profile locality service name type endpoint-profile

Configures endpoint profile parameters. This command is common to multiple NF clients, and is available in the following configuration modes.

Command Modes	Exec > Global Configuration (config) > EIR NF-Client Configuration (config-eir) > EIR Profile Configuration (config-eir-profile- <i>profile_name</i>) > Locality Configuration (config-locality- <i>locality_name</i>) > Service Name Type Configuration (config-type- <i>service_name_type</i>)
Syntax Description	endpoint-profile <i>endpoint_profile_name</i> { capacity <i>capacity_value</i> priority <i>profile_priority</i> api-uri-prefix <i>api_uri_prefix</i> api-root <i>api_root</i> uri-scheme <i>uri_scheme</i> } api-root <i>api_root</i> Specify the API root. Must be a string. api-uri-prefix <i>api_uri_prefix</i> Specify the API URI prefix. Must be a string. capacity <i>capacity_value</i> Specify the profile capacity. Must be an integer in the range of 0-65535. Default Value: 10. endpoint-profile <i>endpoint_profile_name</i> Specify name of the endpoint profile. Must be a string. priority <i>profile_priority</i> Specify the priority of the profile. Must be an integer in the range of 0-65535. Default Value: 1. uri-scheme <i>uri_scheme</i> Specify the URI scheme. Must be one of the following: • http: HTTP.

- **https:** HTTPS.

Usage Guidelines

Use this command to configure endpoint profile parameters. The CLI prompt changes to the Endpoint Profile Configuration mode (config-endpoint-profile-<profile_name>).

profile nf-client nf-type eir eir-profile locality service name type endpoint-profile endpoint-name

Configures the endpoint name parameters. This command is common to multiple NF clients, and is available in the following configuration modes.

Command Modes	Exec > Global Configuration (config) > EIR NF-Client Configuration (config-eir) > EIR Profile Configuration (config-eir-profile- <i>profile_name</i>) > Locality Configuration (config-locality- <i>locality_name</i>) > Service Name Type Configuration (config-type-service_name_type) > Endpoint Profile Configuration (config-endpoint-profile- <i>profile_name</i>)
Syntax Description	endpoint-name <i>endpoint_name</i> [priority <i>node_priority</i> capacity <i>node_capacity</i>] capacity <i>node_capacity</i> Specify the node capacity for the endpoint. Must be an integer in the range of 0-65535. endpoint-name <i>endpoint_name</i> Specify name of the endpoint. You can configure the primary, secondary, and tertiary host (IP: Port) within each endpoint for NF server failover handling. The server failover configuration accepts both IPv4 and IPv6 addresses. However, the SMF gives preference to the IPv4 address. Must be a string. priority <i>node_priority</i> Specify the node priority for the endpoint. Must be an integer in the range of 0-65535.
Usage Guidelines	Use this configuration to configure the endpoint name parameters. The CLI prompt changes to the Endpoint Name Configuration mode (config-endpoint-name-<endpoint_name>).

profile nf-client nf-type eir eir-profile locality service name type endpoint-profile endpoint-name primary ip-address

Configures the endpoint IP address and port number parameters. This command is common to multiple NF clients, and is available in the following configuration modes.

Command Modes	Exec > Global Configuration (config) > EIR NF-Client Configuration (config-eir) > EIR Profile Configuration (config-eir-profile-profile_name) > Locality Configuration (config-locality-locality_name) > Service Name Type Configuration (config-type-service_name_type) > Endpoint Profile Configuration (config-endpoint-profile-profile_name) > Endpoint Name Configuration (config-endpoint-name-endpoint_name)
Syntax Description	<pre>{ primary secondary tertiary } ip-address { [ipv4 ipv4_address ipv6 ipv6_address] [port port_number] }</pre> ipv4 ipv4_address Specify the IPv4 address. Must be a string in the ipv4-address pattern. For information on the ipv4-address pattern, see the Input Pattern Types section. ipv6 ipv6_address Specify the IPv6 address. Must be a string in the ipv6-address pattern. For information on the ipv6-address pattern, see the Input Pattern Types section. port port_number Specify the port number. Must be an integer in the range of 0-65535.
Usage Guidelines	Use this command to configure the endpoint IP address and port number parameters.

profile nf-client nf-type eir eir-profile locality service name type endpoint-profile endpoint-name secondary ip-address

profile nf-client nf-type eir eir-profile locality service name type endpoint-profile endpoint-name secondary ip-address

Configures the endpoint IP address and port number parameters. This command is common to multiple NF clients, and is available in the following configuration modes.

Command Modes Exec > Global Configuration (config) > EIR NF-Client Configuration (config-eir) > EIR Profile Configuration (config-eir-profile-*profile_name*) > Locality Configuration (config-locality-*locality_name*) > Service Name Type Configuration (config-type-*service_name_type*) > Endpoint Profile Configuration (config-endpoint-profile-*profile_name*) > Endpoint Name Configuration (config-endpoint-name-*endpoint_name*)

Syntax Description { **primary** | **secondary** | **tertiary** } **ip-address** { [**ipv4** *ipv4_address* | **ipv6** *ipv6_address*] [**port** *port_number*] }

ipv4 *ipv4_address*

Specify the IPv4 address.

Must be a string in the ipv4-address pattern. For information on the ipv4-address pattern, see the Input Pattern Types section.

ipv6 *ipv6_address*

Specify the IPv6 address.

Must be a string in the ipv6-address pattern. For information on the ipv6-address pattern, see the Input Pattern Types section.

port *port_number*

Specify the port number.

Must be an integer in the range of 0-65535.

Usage Guidelines Use this command to configure the endpoint IP address and port number parameters.

profile nf-client nf-type eir eir-profile locality service name type endpoint-profile endpoint-name tertiary ip-address

Configures the endpoint IP address and port number parameters. This command is common to multiple NF clients, and is available in the following configuration modes.

Command Modes	Exec > Global Configuration (config) > EIR NF-Client Configuration (config-eir) > EIR Profile Configuration (config-eir-profile-profile_name) > Locality Configuration (config-locality-locality_name) > Service Name Type Configuration (config-type-service_name_type) > Endpoint Profile Configuration (config-endpoint-profile-profile_name) > Endpoint Name Configuration (config-endpoint-name-endpoint_name)
Syntax Description	{ primary secondary tertiary } ip-address { [ipv4 ipv4_address ipv6 ipv6_address] [port port_number] } ipv4 ipv4_address Specify the IPv4 address. Must be a string in the ipv4-address pattern. For information on the ipv4-address pattern, see the Input Pattern Types section. ipv6 ipv6_address Specify the IPv6 address. Must be a string in the ipv6-address pattern. For information on the ipv6-address pattern, see the Input Pattern Types section. port port_number Specify the port number. Must be an integer in the range of 0-65535.
Usage Guidelines	Use this command to configure the endpoint IP address and port number parameters.

profile nf-client nf-type eir eir-profile locality service name type endpoint-profile version uri-version

Configures the URI version parameter. This command is common to multiple NF clients, and is available in the following configuration modes.

Command Modes	Exec > Global Configuration (config) > EIR NF-Client Configuration (config-eir) > EIR Profile Configuration (config-eir-profile- <i>profile_name</i>) > Locality Configuration (config-locality- <i>locality_name</i>) > Endpoint Profile Configuration (config-endpoint-profile- <i>profile_name</i>)
Syntax Description	version uri-version { <i>uri_version</i> full-version <i>full_version</i> } full-version <i>full_version</i> Specify the full version in the format <i>major-version.minor-version.patch-version.[alpha-draft-number]</i> Must be a string. uri-version <i>uri_version</i> Specify the URI version. Must be a string in the pattern v\d.
Usage Guidelines	Use this command to configure the URI version parameter.

profile nf-client nf-type group nrf auth service type nrf oauth2

Configures the AMF ID (**service type nrf oauth2** in the **group nrf auth**) to enable an NRF endpoint, to which the AMF will send the `AccessToken` request to the NRF server, when the `nf-client` is configured.

Command Modes

Exec > Global Configuration (`config`) > AMF Configuration (`config-amf amf_name`) > NF Profile Name Configuration (`config-nf-profile-nf nf_profile_name`) > NF Profile Type Configuration (`config-nf-type-profile profile_type_name`) > `group nrf auth` > `service type nrf oauth2`

Syntax Description

```
group nrf auth nrf_group_name
  service type nrf oauth2
    endpoint-profile endpoint_profile_details
    capacity capacity_number
    uri-scheme http
    endpoint-name endpoint_name
    priority priority_number
    primary ip-address ipv4 ipv4_address
    primary ip-address port port_address
```

group nrf auth *nrf_group_name*

Specify the NRF group name to authenticate. Must be a string.

service type nrf oauth2

Specify the service and the type of NRF, which must be authenticated to enable the OAuth2 profile configuration.

endpoint-profile *endpoint_profile_details*

Specify the endpoint profile details.

capacity *capacity_number*

Specify the capacity requirement in number.

uri-scheme `http`

Specify the URI scheme.

endpoint-name *endpoint_name*

Specify the endpoint name.

priority *priority_number*

Specify the priority request. Must be in numbers.

primary ip-address ipv4 *ipv4_address*

Specify the primary IPv4 address.

```
profile nf-client nf-type group nrf auth service type nrf oauth2
```

primary ip-address port *port_address*

Specify the primary port address.

Usage Guidelines

Use this command, when the **service type nrf oauth2** in the **group nrf auth** feature is configured, when the AMF sends the `AccessToken` request to the NRF server, when the `nf-client` is configured.

profile nf-client nf-type gmlc gmlc-profile

Configures GMLC profile parameters.

Command Modes	Exec > Global Configuration (config)
Syntax Description	<pre> profile nf-client nf-type gmlc { gmlc-profile <i>profile_name</i> { locality <i>locality_name</i> server-name <i>server_name</i> } oauthenabled { true false } } </pre> gmlc-profile <i>profile_name</i> Specify the GMLC profile name Must be a string. locality <i>locality_name</i> Specify the locality. Must be a string. server-name <i>server_name</i> Specify the server name. Must be a string. oauthenabled { true false } Enable the oauthenabled profile configuration. The default value is false.
Usage Guidelines	Use this command to configure GMLC profile parameters. The CLI prompt changes to the GMLC Profile Configuration mode (config-gmlc-profile-<profile_name>).

profile nf-client nf-type gmlc gmlc-profile locality

Configures the GMLC profile locality parameter.

Command Modes	Exec > Global Configuration (config) > GMLC Profile Configuration (config-amf-profile-gmlc_profile_name)
----------------------	--

Syntax Description	locality <i>locality_name</i> [priority <i>locality_priority</i>]
---------------------------	---

locality *locality_name*

Specify name of the locality.

Must be a string.

priority *locality_priority*

Specify priority of the locality configuration.

Must be an integer in the range of 0-65535.

Usage Guidelines	Use this command to configure the GMLC profile locality parameter.
-------------------------	--

profile nf-client nf-type gmlc gmlc-profile locality service name type

Configures the GMLC service name type parameter.

Command Modes Exec > Global Configuration (config) > GMLC NF-Client Configuration (config-gmlc) > GMLC Profile Configuration (config-GMLC-profile-*profile_name*) > Locality Configuration (config-locality-*locality_name*)

Syntax Description **service name type** *gmlc_service_name_type* { **responsetimeout** *response_timeout* }

service name type *gmlc_service_name_type*

Specify the service name type.

Must be one of the following:

- ngmlc-loc

responsetimeout *response_timeout*

Specify the response timeout interval in milliseconds.

Must be an integer.

Default Value: 2000.

Usage Guidelines Use this command to configure the GMLC service name type parameter. The CLI prompt changes to the Service Name Type Configuration mode (config-type-<service_name_type>).

profile nf-client nf-type gmlc gmlc-profile locality service name type ngmlc-loc endpoint-profile

Configures endpoint profile parameters.

Command Modes

Exec > Global Configuration (config) > GMLC NF-Client Configuration (config-gmlc) > GMLC Profile Configuration (config-gmlc-profile-*profile_name*) > Locality Configuration (config-locality-*locality_name*) > Service Name Type Configuration (config-type-*service_name_type*)

Syntax Description

endpoint-profile *endpoint_profile_name* { **capacity** *endpoint_capacity* | **priority** *profile_priority* | **uri-scheme** *uri_scheme* | **server-name** *server_name* }

endpoint-profile *endpoint_profile_name*

Specify name of the endpoint profile.

Must be a string.

{ **capacity** *endpoint_capacity*

Specify the endpoint capacity.

Must be an integer in the range of 0-65535.

priority *profile_priority*

Specify the priority of the profile.

Must be an integer in the range of 0-65535.

Default Value: 1.

uri-scheme *uri_scheme*

Specify the URI scheme.

Must be one of the following:

- **http**: HTTP.
- **https**: HTTPS.

server-name *server_name*

Specify the server name.

Usage Guidelines

Use this command to configure endpoint profile parameters. The CLI prompt changes to the Endpoint Profile Configuration mode (config-endpoint-profile-<profile_name>).

profile nf-client nf-type gmlc gmlc-profile locality service name type endpoint-profile endpoint-name

Configures the endpoint name parameters.

Command Modes Exec > Global Configuration (config) > GMLC NF-Client Configuration (config-gmlc) > GMLC Profile Configuration (config-gmlc-profile-profile_name) > Locality Configuration (config-locality-locality_name) > Service Name Type Configuration (config-type-service_name_type) > Endpoint Profile Configuration (config-endpoint-profile-profile_name)

Syntax Description **endpoint-name** endpoint_name [**priority** node_priority | **capacity** node_capacity]

capacity node_capacity

Specify the node capacity for the endpoint.
Must be an integer in the range of 0-65535.

endpoint-name endpoint_name

Specify name of the endpoint. You can configure the primary, secondary, and tertiary host (IP: Port) within each endpoint for NF server failover handling. The server failover configuration accepts both IPv4 and IPv6 addresses.
Must be a string.

priority node_priority

Specify the node priority for the endpoint.
Must be an integer in the range of 0-65535.

Usage Guidelines Use this configuration to configure the endpoint name parameters. The CLI prompt changes to the Endpoint Name Configuration mode (config-endpoint-name-<endpoint_name>).

profile nf-client nf-type gmlc gmlc-profile locality service name type endpoint-profile endpoint-name default-notification-subscriptions

Configures the Default Notification Subscription parameters.

Command Modes Exec > Global Configuration (config) > GMLC NF-Client Configuration (config-gmlc) > GMLC Profile Configuration (config-gmlc-profile-*profile_name*) > Locality Configuration (config-locality-*locality_name*) > Service Name Type Configuration (config-type-service-*name_type*) > Endpoint Profile Configuration (config-endpoint-profile-*profile_name*) > Endpoint Name Configuration (config-endpoint-name-*endpoint_name*)

Syntax Description **default-notification-subscriptions** *name* [**callback-uri** *callback_uri* | **notification-type** *notification_type*]

callback-uri *callback_uri*

Specify the callback URI.

Must be a string.

notification-type *notification_type*

Specify the notification type.

- LOCATION_NOTIFICATION

name

Specify the name of the default notification subscriptions.

Must be a string.

Usage Guidelines Use this command to configure the Default Notification Subscription parameters. The CLI prompt changes to the Default Notification Subscriptions Configuration mode (config-default-notification-subscriptions-<name>)

profile nf-client nf-type gmlc gmlc-profile locality service name type endpoint-profile endpoint-name primary ip-address

Configures the endpoint IP address and port number parameters.

Command Modes	Exec > Global Configuration (config) > GMLC NF-Client Configuration (config-gmlc) > GMLC Profile Configuration (config-gmlc-profile-profile_name) > Locality Configuration (config-locality-locality_name) > Service Name Type Configuration (config-type-service_name_type) > Endpoint Profile Configuration (config-endpoint-profile-profile_name) > Endpoint Name Configuration (config-endpoint-name-endpoint_name)
Syntax Description	<pre>{ primary ip-address { [{ ipv4 ipv4_address ipv6 ipv6_address }] [port port_number] }</pre> ipv4 ipv4_address ipv6 ipv6_address Specify the IPv4/IPv6 address. Must be a string in the IPv4/IPv6-address pattern. For information on the IPv4/IPv6-address pattern, see the Input Pattern Types section. port port_number Specify the port number. Must be an integer in the range of 0-65535.
Usage Guidelines	Use this command to configure the endpoint IP address and port number parameters.

profile nf-client nf-type lmf lmf-profile

Configures LMF profile parameters.

Command Modes

Exec > Global Configuration (config)

Syntax Description

```
profile nf-client nf-type lmf { lmf-profile profile_name { locality  
locality_name | server-name server_name } | oauthenabled { true | false } }
```

lmf-profile *profile_name*

Specify the LMF profile name

Must be a string.

locality *locality_name*

Specify the locality.

Must be a string.

server-name *server_name*

Specify the server name.

Must be a string.

oauthenabled { **true** | **false** }

Enable the oauthenabled profile configuration.

The default value is false.

Usage Guidelines

Use this command to configure LMF profile parameters. The CLI prompt changes to the LMF Profile Configuration mode (config-lmf-profile-<profile_name>).

profile nf-client nf-type lmf lmf-profile locality

Configures the LMF profile locality parameter.

Command Modes Exec > Global Configuration (config) > LMF Profile Configuration (config-amf-profile-*profile_name*)

Syntax Description **locality** *locality_name* [**priority** *locality_priority*]

locality *locality_name*

Specify name of the locality.
Must be a string.

priority *locality_priority*

Specify priority of the locality configuration.
Must be an integer in the range of 0-65535.

Usage Guidelines Use this command to configure the LMF profile locality parameter.

profile nf-client nf-type lmf lmf-profile locality service name type

Configures the LMF service name type parameter.

Command Modes Exec > Global Configuration (config) > LMF NF-Client Configuration (config-lmf) > LMF Profile Configuration (config-lmf-profile-*profile_name*) > Locality Configuration (config-locality-*locality_name*)

Syntax Description **service name type** *lmf_service_name_type* **responsetimeout** *response_timeout*

responsetimeout *response_timeout*

Specify the response timeout interval in milliseconds.

Must be an integer.

Default Value: 2000.

type *lmf_service_name_type*

Specify the service name type.

Must be one of the following:

- **nlmf-loc**

Usage Guidelines Use this command to configure the LMF service name type parameter. The CLI prompt changes to the Service Name Type Configuration mode (config-type-<service_name_type>).

profile nf-client nf-type lmf lmf-profile locality service name type endpoint-profile

Configures endpoint profile parameters.

Command Modes Exec > Global Configuration (config) > LMF NF-Client Configuration (config-lmf) > LMF Profile Configuration (config-lmf-profile-*profile_name*) > Locality Configuration (config-locality-*locality_name*) > Service Name Type Configuration (config-type-*service_name_type*)

Syntax Description **endpoint-profile** *endpoint_profile_name* { **capacity** *capacity_value* | **priority** *profile_priority* | **api-uri-prefix** *api_uri_prefix* | **api-root** *api_root* | **uri-scheme** *uri_scheme* }

endpoint-profile *endpoint_profile_name*

Specify name of the endpoint profile.

Must be a string.

priority *profile_priority*

Specify the priority of the profile.

Must be an integer in the range of 0-65535.

Default Value: 1.

uri-scheme *uri_scheme*

Specify the URI scheme.

Must be one of the following:

- **http**: HTTP.
- **https**: HTTPS.

Usage Guidelines Use this command to configure endpoint profile parameters. The CLI prompt changes to the Endpoint Profile Configuration mode (config-endpoint-profile-<profile_name>).

profile nf-client nf-type lmf lmf-profile locality service name type endpoint-profile endpoint-name

Configures the endpoint name parameters.

Command Modes	Exec > Global Configuration (config) > LMF NF-Client Configuration (config-lmf) > LMF Profile Configuration (config-lmf-profile-profile_name) > Locality Configuration (config-locality-locality_name) > Service Name Type Configuration (config-type-service_name_type) > Endpoint Profile Configuration (config-endpoint-profile-profile_name)
Syntax Description	endpoint-name endpoint_name [priority node_priority capacity node_capacity] capacity node_capacity Specify the node capacity for the endpoint. Must be an integer in the range of 0-65535. endpoint-name endpoint_name Specify name of the endpoint. You can configure the primary, secondary, and tertiary host (IP: Port) within each endpoint for NF server failover handling. The server failover configuration accepts both IPv4 and IPv6 addresses. Must be a string. priority node_priority Specify the node priority for the endpoint. Must be an integer in the range of 0-65535.
Usage Guidelines	Use this configuration to configure the endpoint name parameters. The CLI prompt changes to the Endpoint Name Configuration mode (config-endpoint-name-<endpoint_name>).

profile nf-client nf-type lmf lmf-profile locality service name type endpoint-profile endpoint-name default-notification-subscriptions

Configures the Default Notification Subscription parameters.

Command Modes Exec > Global Configuration (config) > LMF NF-Client Configuration (config-lmf) > LMF Profile Configuration (config-lmf-profile-profile_name) > Locality Configuration (config-locality-locality_name) > Service Name Type Configuration (config-type-service_name_type) > Endpoint Profile Configuration (config-endpoint-profile-profile_name) > Endpoint Name Configuration (config-endpoint-name-endpoint_name)

Syntax Description **default-notification-subscriptions** name [**callback-uri** callback_uri | **n1-message-class** n1_message_class | **n2-information-class** n2_information_class | **notification-type** notification_type]

callback-uri callback_uri

Specify the callback URI.
Must be a string.

n1-message-class n1_message_class

Specify the N1 Message Class.
Must be one of the following:

- LPP

n2-information-class n2_information_class

Specify the N2 Information Class.
Must be one of the following:

- NRPPA

notification-type notification_type

Specify the notification type.
Must be one of the following:

- N1_MESSAGES
- N2_INFORMATION

name

Specify the name of the default notification subscriptions.
Must be a string.

profile nf-client nf-type lmf lmf-profile locality service name type endpoint-profile endpoint-name default-notification-subscriptions

Usage Guidelines

Use this command to configure the Default Notification Subscription parameters. The CLI prompt changes to the Default Notification Subscriptions Configuration mode (config-default-notification-subscriptions-<name>)

profile nf-client nf-type lmf lmf-profile locality service name type endpoint-profile endpoint-name primary ip-address

Configures the endpoint IP address and port number parameters.

Command Modes	Exec > Global Configuration (config) > LMF NF-Client Configuration (config-lmf) > LMF Profile Configuration (config-lmf-profile-profile_name) > Locality Configuration (config-locality-locality_name) > Service Name Type Configuration (config-type-service_name_type) > Endpoint Profile Configuration (config-endpoint-profile-profile_name) > Endpoint Name Configuration (config-endpoint-name-endpoint_name)
Syntax Description	{ primary ip-address { [ipv4 ipv4_address] [port port_number] } ipv4 ipv4_address Specify the IPv4 address. Must be a string in the ipv4-address pattern. For information on the ipv4-address pattern, see the Input Pattern Types section. port port_number Specify the port number. Must be an integer in the range of 0-65535.
Usage Guidelines	Use this command to configure the endpoint IP address and port number parameters.

profile nf-client nf-type lmf lmf-profile locality service name type endpoint-profile version uri-version

Configures the URI version parameter.

Command Modes Exec > Global Configuration (config) > LMF NF-Client Configuration (config-lmf) > LMF Profile Configuration (config-lmf-profile-*profile_name*) > Locality Configuration (config-locality-*locality_name*) > Endpoint Profile Configuration (config-endpoint-profile-*profile_name*)

Syntax Description **version uri-version** { *uri_version* | **full-version** *full_version* }

full-version *full_version*

Specify the full version in the format *major-version.minor-version.patch-version.[alpha-draft-number]*

Must be a string.

uri-version *uri_version*

Specify the URI version.

Must be a string in the pattern v\d.

Usage Guidelines Use this command to configure the URI version parameter.

profile nf-client nf-type nssf nssf-profile

Configures NSSF profile parameters.

Command Modes Exec > Global Configuration (config)

Syntax Description `profile nf-client nf-type nssf { nssf-profile profile_name { locality locality_name | server-name server_name } | oauthenabled { true | false } }`

nssf-profile *nssf_profile_name*

Specify name of the NSSF profile.

Must be a string.

locality *locality_name*

Specify the locality.

Must be a string.

server-name *server_name*

Specify the server name.

Must be a string.

oauthenabled { true | false }

Enable the oauthenabled profile configuration.

The default value is false.

Usage Guidelines Use this command to configure the NSSF profile parameters. The CLI prompt changes to the NSSF Profile Configuration mode (config-nssf-profile-<profile_name>).

profile nf-client nf-type nssf nssf-profile locality

Configures locality parameter.

Command Modes

Exec > Global Configuration (config) > NSSF Profile Configuration (config-nssf-profile-*profile_name*)

Syntax Description

locality *locality_name* [**priority** *locality_config_priority*]

locality *locality_name*

Specify name of the locality.

Must be a string.

priority *locality_config_priority*

Specify the priority of the locality configuration.

Must be an integer in the range of 0-65535.

Usage Guidelines

Use this command to configure the NSSF Profile Locality parameter.

profile nf-client nf-type nssf nssf-profile locality service name type

Configures the NSSF service name type parameter.

Command Modes	Exec > Global Configuration (config) > NSSF NF-Client Configuration (config-nssf) > NSSF Profile Configuration (config-nssf-profile- <i>profile_name</i>) > Locality Configuration (config-locality- <i>locality_name</i>)
Syntax Description	service name type <i>service_name_type</i> [responsetimeout <i>response_timeout_interval</i>] responsetimeout <i>response_timeout_interval</i> Specify the response timeout interval in milliseconds. Must be an integer. Default Value: 2000. type <i>service_name_type</i> Specify the NSSF service name type. Must be one of the following: • nssf-nsselection
Usage Guidelines	Use this command to configure the NSSF service name type parameter. The CLI prompt changes to the Service Name Type Configuration mode (config-type-<service_name_type>).

profile nf-client nf-type nssf nssf-profile locality service name type endpoint-profile

Configures endpoint profile parameters. This command is common to multiple NF clients, and is available in the following configuration modes.

Command Modes	Exec > Global Configuration (config) > NSSF NF-Client Configuration (config-nssf) > NSSF Profile Configuration (config-nssf-profile- <i>profile_name</i>) > Locality Configuration (config-locality- <i>locality_name</i>) > Service Name Type Configuration (config-type- <i>service_name_type</i>)
Syntax Description	endpoint-profile <i>endpoint_profile_name</i> { capacity <i>capacity_value</i> priority <i>profile_priority</i> api-uri-prefix <i>api_uri_prefix</i> api-root <i>api_root</i> uri-scheme <i>uri_scheme</i> } api-root <i>api_root</i> Specify the API root. Must be a string. api-uri-prefix <i>api_uri_prefix</i> Specify the API URI prefix. Must be a string. capacity <i>capacity_value</i> Specify the profile capacity. Must be an integer in the range of 0-65535. Default Value: 10. endpoint-profile <i>endpoint_profile_name</i> Specify name of the endpoint profile. Must be a string. priority <i>profile_priority</i> Specify the priority of the profile. Must be an integer in the range of 0-65535. Default Value: 1. uri-scheme <i>uri_scheme</i> Specify the URI scheme. Must be one of the following: • http: HTTP.

- **https**: HTTPS.

Usage Guidelines

Use this command to configure endpoint profile parameters. The CLI prompt changes to the Endpoint Profile Configuration mode (config-endpoint-profile-<profile_name>).

profile nf-client nf-type nssf nssf-profile locality service name type endpoint-profile endpoint-name

Configures the endpoint name parameters. This command is common to multiple NF clients, and is available in the following configuration modes.

Command Modes

Exec > Global Configuration (config) > NSSF NF-Client Configuration (config-nssf) > NSSF Profile Configuration (config-nssf-profile-*profile_name*) > Locality Configuration (config-locality-*locality_name*) > Service Name Type Configuration (config-type-service-*name_type*) > Endpoint Profile Configuration (config-endpoint-profile-*profile_name*)

Syntax Description

endpoint-name *endpoint_name* [**priority** *node_priority* | **capacity** *node_capacity*]

capacity *node_capacity*

Specify the node capacity for the endpoint.

Must be an integer in the range of 0-65535.

endpoint-name *endpoint_name*

Specify name of the endpoint. You can configure the primary, secondary, and tertiary host (IP: Port) within each endpoint for NF server failover handling. The server failover configuration accepts both IPv4 and IPv6 addresses. However, the SMF gives preference to the IPv4 address.

Must be a string.

priority *node_priority*

Specify the node priority for the endpoint.

Must be an integer in the range of 0-65535.

Usage Guidelines

Use this configuration to configure the endpoint name parameters. The CLI prompt changes to the Endpoint Name Configuration mode (config-endpoint-name-<endpoint_name>).

profile nf-client nf-type nssf nssf-profile locality service name type endpoint-profile endpoint-name default-notification-subscriptions

Configures the Default Notification Subscription parameters. This command is common to multiple NF clients, and is available in the following configuration modes.

Command Modes

Exec > Global Configuration (config) > NSSF NF-Client Configuration (config-nssf) > NSSF Profile Configuration (config-nssf-profile-*profile_name*) > Locality Configuration (config-locality-*locality_name*) > Service Name Type Configuration (config-type-service_name_type) > Endpoint Profile Configuration (config-endpoint-profile-*profile_name*) > Endpoint Name Configuration (config-endpoint-name-*endpoint_name*)

Syntax Description

default-notification-subscriptions *name* [**callback-uri** *callback_uri* | **n1-message-class** *n1_message_class* | **n2-information-class** *n2_information_class* | **notification-type** *notification_type*]

callback-uri *callback_uri*

Specify the callback URI.

Must be a string.

n1-message-class *n1_message_class*

Specify the N1 Message Class.

Must be one of the following:

- 5GMM

n2-information-class *n2_information_class*

Specify the N2 Information Class.

Must be one of the following:

- RAN

notification-type *notification_type*

Specify the notification type.

Must be one of the following:

- DATA_CHANGE_NOTIFICATION
- DATA_REMOVAL_NOTIFICATION
- LOCATION_NOTIFICATION
- N1_MESSAGES

profile nf-client nf-type nssf nssf-profile locality service name type endpoint-profile endpoint-name default-notification-subscriptions

- **N2_INFORMATION**

name

Specify the name of the default notification subscriptions.

Must be a string.

Usage Guidelines

Use this command to configure the Default Notification Subscription parameters. The CLI prompt changes to the Default Notification Subscriptions Configuration mode (config-default-notification-subscriptions-<name>)

profile nf-client nf-type nssf nssf-profile locality service name type endpoint-profile endpoint-name primary ip-address

Configures the endpoint IP address and port number parameters. This command is common to multiple NF clients, and is available in the following configuration modes.

Command Modes	Exec > Global Configuration (config) > NSSF NF-Client Configuration (config-nssf) > NSSF Profile Configuration (config-nssf-profile- <i>profile_name</i>) > Locality Configuration (config-locality- <i>locality_name</i>) > Service Name Type Configuration (config-type- <i>service_name_type</i>) > Endpoint Profile Configuration (config-endpoint-profile- <i>profile_name</i>) > Endpoint Name Configuration (config-endpoint-name- <i>endpoint_name</i>)
Syntax Description	{ primary secondary tertiary } ip-address { [ipv4 <i>ipv4_address</i> ipv6 <i>ipv6_address</i>] [port <i>port_number</i>] } ipv4 <i>ipv4_address</i> Specify the IPv4 address. Must be a string in the ipv4-address pattern. For information on the ipv4-address pattern, see the Input Pattern Types section. ipv6 <i>ipv6_address</i> Specify the IPv6 address. Must be a string in the ipv6-address pattern. For information on the ipv6-address pattern, see the Input Pattern Types section. port <i>port_number</i> Specify the port number. Must be an integer in the range of 0-65535.
Usage Guidelines	Use this command to configure the endpoint IP address and port number parameters.

profile nf-client nf-type nssf nssf-profile locality service name type endpoint-profile endpoint-name secondary ip-address

profile nf-client nf-type nssf nssf-profile locality service name type endpoint-profile endpoint-name secondary ip-address

Configures the endpoint IP address and port number parameters. This command is common to multiple NF clients, and is available in the following configuration modes.

Command Modes	Exec > Global Configuration (config) > NSSF NF-Client Configuration (config-nssf) > NSSF Profile Configuration (config-nssf-profile-<i>profile_name</i>) > Locality Configuration (config-locality-<i>locality_name</i>) > Service Name Type Configuration (config-type-service-<i>name_type</i>) > Endpoint Profile Configuration (config-endpoint-profile-<i>profile_name</i>) > Endpoint Name Configuration (config-endpoint-name-<i>endpoint_name</i>)
Syntax Description	<pre>{ primary secondary tertiary } ip-address { [ipv4 <i>ipv4_address</i> ipv6 <i>ipv6_address</i>] [port <i>port_number</i>] }</pre> ipv4 <i>ipv4_address</i> Specify the IPv4 address. Must be a string in the ipv4-address pattern. For information on the ipv4-address pattern, see the Input Pattern Types section. ipv6 <i>ipv6_address</i> Specify the IPv6 address. Must be a string in the ipv6-address pattern. For information on the ipv6-address pattern, see the Input Pattern Types section. port <i>port_number</i> Specify the port number. Must be an integer in the range of 0-65535.
Usage Guidelines	Use this command to configure the endpoint IP address and port number parameters.

profile nf-client nf-type nssf nssf-profile locality service name type endpoint-profile endpoint-name tertiary ip-address

Configures the endpoint IP address and port number parameters. This command is common to multiple NF clients, and is available in the following configuration modes.

Command Modes	Exec > Global Configuration (config) > NSSF NF-Client Configuration (config-nssf) > NSSF Profile Configuration (config-nssf-profile- <i>profile_name</i>) > Locality Configuration (config-locality- <i>locality_name</i>) > Service Name Type Configuration (config-type- <i>service_name_type</i>) > Endpoint Profile Configuration (config-endpoint-profile- <i>profile_name</i>) > Endpoint Name Configuration (config-endpoint-name- <i>endpoint_name</i>)
Syntax Description	{ primary secondary tertiary } ip-address { [ipv4 <i>ipv4_address</i> ipv6 <i>ipv6_address</i>] [port <i>port_number</i>] } ipv4 <i>ipv4_address</i> Specify the IPv4 address. Must be a string in the ipv4-address pattern. For information on the ipv4-address pattern, see the Input Pattern Types section. ipv6 <i>ipv6_address</i> Specify the IPv6 address. Must be a string in the ipv6-address pattern. For information on the ipv6-address pattern, see the Input Pattern Types section. port <i>port_number</i> Specify the port number. Must be an integer in the range of 0-65535.
Usage Guidelines	Use this command to configure the endpoint IP address and port number parameters.

profile nf-client nf-type nssf nssf-profile locality service name type endpoint-profile version uri-version

Configures the URI version parameter. This command is common to multiple NF clients, and is available in the following configuration modes.

Command Modes	Exec > Global Configuration (config) > NSSF NF-Client Configuration (config-nssf) > NSSF Profile Configuration (config-nssf-profile-profile_name) > Locality Configuration (config-locality-locality_name) > Endpoint Profile Configuration (config-endpoint-profile-profile_name)
Syntax Description	version uri-version { <i>uri_version</i> full-version <i>full_version</i> } full-version <i>full_version</i> Specify the full version in the format <i>major-version.minor-version.patch-version.[alpha-draft-number]</i> Must be a string. uri-version <i>uri_version</i> Specify the URI version. Must be a string in the pattern v\d.
Usage Guidelines	Use this command to configure the URI version parameter.

profile nf-client nf-type pcf pcf-profile

Configures PCF profile parameters.

Command Modes Exec > Global Configuration (config)

Syntax Description `profile nf-client nf-type pcf { pcf-profile profile_name { locality locality_name | server-name server_name } | oauthenabled { true | false } }`

pcf-profile *profile_name*

Specify name of the PCF profile.

Must be a string.

locality *locality_name*

Specify the locality.

Must be a string.

server-name *server_name*

Specify the server name.

Must be a string.

oauthenabled { true | false }

Enable the oauthenabled profile configuration.

The default value is false.

Usage Guidelines Use this command to configure the PCF profile parameters. The CLI prompt changes to the PCF Profile Configuration mode (config-pcf-profile-<profile_name>).

profile nf-client nf-type pcf pcf-profile locality

Configures the PCF profile locality parameter.

Command Modes	Exec > Global Configuration (config) > PCF Profile Configuration (config-psf-profile- <i>profile_name</i>)
----------------------	---

Syntax Description	locality <i>locality_name</i> [priority <i>locality_priority</i>]
---------------------------	---

locality *locality_name*

Specify name of the locality.

Must be a string.

priority *locality_priority*

Specify priority of the locality configuration.

Must be an integer in the range of 0-65535.

Usage Guidelines	Use this command to configure the PCF profile locality parameter.
-------------------------	---

profile nf-client nf-type pcf pcf-profile locality service name type

Configures the PCF service name type parameter.

Command Modes

Exec > Global Configuration (config) > PCF NF-Client Configuration (config-pcf) > PCF Profile Configuration (config-pcf-profile-*profile_name*) > Locality Configuration (config-locality-*locality_name*)

Syntax Description

service name type *service_name_type* [**responsetimeout** *response_timeout*]

responsetimeout *response_timeout*

Specify the response timeout interval in milliseconds.

Must be an integer.

Default Value: 2000.

type *service_name_type*

Specify the PCF service name parameters.

Must be one of the following:

- **npcf-am-policy-control**
- **npcf-bdtpolicycontrol**
- **npcf-eventexposure**
- **npcf-policyauthorization**
- **npcf-smpolicycontrol**
- **npcf-ue-policy-control**

Usage Guidelines

Use this command to configure the PCF service name type parameter. The CLI prompt changes to the Service Name Type Configuration mode (config-type-<*service_name_type*>).

profile nf-client nf-type pcf pcf-profile locality service name type endpoint-profile

Configures endpoint profile parameters. This command is common to multiple NF clients, and is available in the following configuration modes.

Command Modes	Exec > Global Configuration (config) > PCF NF-Client Configuration (config-pcf) > PCF Profile Configuration (config-pcf-profile- <i>profile_name</i>) > Locality Configuration (config-locality- <i>locality_name</i>) > Service Name Type Configuration (config-type- <i>service_name_type</i>)
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Syntax Description	endpoint-profile <i>endpoint_profile_name</i> { capacity <i>capacity_value</i> priority <i>profile_priority</i> api-uri-prefix <i>api_uri_prefix</i> api-root <i>api_root</i> uri-scheme <i>uri_scheme</i> }
---------------------------	--

api-root *api_root*

Specify the API root.

Must be a string.

api-uri-prefix *api_uri_prefix*

Specify the API URI prefix.

Must be a string.

capacity *capacity_value*

Specify the profile capacity.

Must be an integer in the range of 0-65535.

Default Value: 10.

endpoint-profile *endpoint_profile_name*

Specify name of the endpoint profile.

Must be a string.

priority *profile_priority*

Specify the priority of the profile.

Must be an integer in the range of 0-65535.

Default Value: 1.

uri-scheme *uri_scheme*

Specify the URI scheme.

Must be one of the following:

- **http**: HTTP.

- **https:** HTTPS.

Usage Guidelines

Use this command to configure endpoint profile parameters. The CLI prompt changes to the Endpoint Profile Configuration mode (config-endpoint-profile-<profile_name>).

profile nf-client nf-type pcf pcf-profile locality service name type endpoint-profile endpoint-name

Configures the endpoint name parameters. This command is common to multiple NF clients, and is available in the following configuration modes.

Command Modes	Exec > Global Configuration (config) > PCF NF-Client Configuration (config-pcf) > PCF Profile Configuration (config-pcf-profile- <i>profile_name</i>) > Locality Configuration (config-locality- <i>locality_name</i>) > Service Name Type Configuration (config-type- <i>service_name_type</i>) > Endpoint Profile Configuration (config-endpoint-profile- <i>profile_name</i>)
Syntax Description	endpoint-name <i>endpoint_name</i> [priority <i>node_priority</i> capacity <i>node_capacity</i>] capacity <i>node_capacity</i> Specify the node capacity for the endpoint. Must be an integer in the range of 0-65535. endpoint-name <i>endpoint_name</i> Specify name of the endpoint. You can configure the primary, secondary, and tertiary host (IP: Port) within each endpoint for NF server failover handling. The server failover configuration accepts both IPv4 and IPv6 addresses. However, the SMF gives preference to the IPv4 address. Must be a string. priority <i>node_priority</i> Specify the node priority for the endpoint. Must be an integer in the range of 0-65535.
Usage Guidelines	Use this configuration to configure the endpoint name parameters. The CLI prompt changes to the Endpoint Name Configuration mode (config-endpoint-name-<endpoint_name>).

profile nf-client nf-type pcf pcf-profile locality service name type endpoint-profile endpoint-name default-notification-subscriptions

Configures the Default Notification Subscription parameters. This command is common to multiple NF clients, and is available in the following configuration modes.

Command Modes

Exec > Global Configuration (config) > PCF NF-Client Configuration (config-pcf) > PCF Profile Configuration (config-pcf-profile-*profile_name*) > Locality Configuration (config-locality-*locality_name*) > Service Name Type Configuration (config-type-*service_name_type*) > Endpoint Profile Configuration (config-endpoint-profile-*profile_name*) > Endpoint Name Configuration (config-endpoint-name-*endpoint_name*)

Syntax Description

default-notification-subscriptions *name* [**callback-uri** *callback_uri* | **n1-message-class** *n1_message_class* | **n2-information-class** *n2_information_class* | **notification-type** *notification_type*]

callback-uri *callback_uri*

Specify the callback URI.

Must be a string.

n1-message-class *n1_message_class*

Specify the N1 Message Class.

Must be one of the following:

- 5GMM

n2-information-class *n2_information_class*

Specify the N2 Information Class.

Must be one of the following:

- RAN

notification-type *notification_type*

Specify the notification type.

Must be one of the following:

- DATA_CHANGE_NOTIFICATION
- DATA_REMOVAL_NOTIFICATION
- LOCATION_NOTIFICATION
- N1_MESSAGES

profile nf-client nf-type pcf pcf-profile locality service name type endpoint-profile endpoint-name default-notification-subscriptions

• N2_INFORMATION

name

Specify the name of the default notification subscriptions.

Must be a string.

Usage Guidelines Use this command to configure the Default Notification Subscription parameters. The CLI prompt changes to the Default Notification Subscriptions Configuration mode (config-default-notification-subscriptions-<name>)

profile nf-client nf-type pcf pcf-profile locality service name type endpoint-profile endpoint-name primary ip-address

Configures the endpoint IP address and port number parameters. This command is common to multiple NF clients, and is available in the following configuration modes.

Command Modes Exec > Global Configuration (config) > PCF NF-Client Configuration (config-pcf) > PCF Profile Configuration (config-pcf-profile-*profile_name*) > Locality Configuration (config-locality-*locality_name*) > Service Name Type Configuration (config-type-*service_name_type*) > Endpoint Profile Configuration (config-endpoint-profile-*profile_name*) > Endpoint Name Configuration (config-endpoint-name-*endpoint_name*)

Syntax Description { **primary** | **secondary** | **tertiary** } **ip-address** { [**ipv4** *ipv4_address* | **ipv6** *ipv6_address*] [**port** *port_number*] }

ipv4 *ipv4_address*

Specify the IPv4 address.

Must be a string in the ipv4-address pattern. For information on the ipv4-address pattern, see the Input Pattern Types section.

ipv6 *ipv6_address*

Specify the IPv6 address.

Must be a string in the ipv6-address pattern. For information on the ipv6-address pattern, see the Input Pattern Types section.

port *port_number*

Specify the port number.

Must be an integer in the range of 0-65535.

Usage Guidelines Use this command to configure the endpoint IP address and port number parameters.

profile nf-client nf-type pcf pcf-profile locality service name type endpoint-profile endpoint-name secondary ip-address

profile nf-client nf-type pcf pcf-profile locality service name type endpoint-profile endpoint-name secondary ip-address

Configures the endpoint IP address and port number parameters. This command is common to multiple NF clients, and is available in the following configuration modes.

Command Modes Exec > Global Configuration (config) > PCF NF-Client Configuration (config-pcf) > PCF Profile Configuration (config-pcf-profile-profile_name) > Locality Configuration (config-locality-locality_name) > Service Name Type Configuration (config-type-service_name_type) > Endpoint Profile Configuration (config-endpoint-profile-profile_name) > Endpoint Name Configuration (config-endpoint-name-endpoint_name)

Syntax Description { primary | secondary | tertiary } ip-address { [ipv4 ipv4_address | ipv6 ipv6_address] [port port_number] }

ipv4 ipv4_address

Specify the IPv4 address.
Must be a string in the ipv4-address pattern. For information on the ipv4-address pattern, see the Input Pattern Types section.

ipv6 ipv6_address

Specify the IPv6 address.
Must be a string in the ipv6-address pattern. For information on the ipv6-address pattern, see the Input Pattern Types section.

port port_number

Specify the port number.
Must be an integer in the range of 0-65535.

Usage Guidelines Use this command to configure the endpoint IP address and port number parameters.

profile nf-client nf-type pcf pcf-profile locality service name type endpoint-profile endpoint-name tertiary ip-address

Configures the endpoint IP address and port number parameters. This command is common to multiple NF clients, and is available in the following configuration modes.

Command Modes Exec > Global Configuration (config) > PCF NF-Client Configuration (config-pcf) > PCF Profile Configuration (config-pcf-profile-profile_name) > Locality Configuration (config-locality-locality_name) > Service Name Type Configuration (config-type-service_name_type) > Endpoint Profile Configuration (config-endpoint-profile-profile_name) > Endpoint Name Configuration (config-endpoint-name-endpoint_name)

Syntax Description { primary | secondary | tertiary } ip-address { [ipv4 ipv4_address | ipv6 ipv6_address] [port port_number] }

ipv4 ipv4_address

Specify the IPv4 address.

Must be a string in the ipv4-address pattern. For information on the ipv4-address pattern, see the Input Pattern Types section.

ipv6 ipv6_address

Specify the IPv6 address.

Must be a string in the ipv6-address pattern. For information on the ipv6-address pattern, see the Input Pattern Types section.

port port_number

Specify the port number.

Must be an integer in the range of 0-65535.

Usage Guidelines Use this command to configure the endpoint IP address and port number parameters.

profile nf-client nf-type pcf pcf-profile locality service name type endpoint-profile version uri-version

Configures the URI version parameter. This command is common to multiple NF clients, and is available in the following configuration modes.

Command Modes Exec > Global Configuration (config) > PCF NF-Client Configuration (config-pcf) > PCF Profile Configuration (config-pcf-profile-*profile_name*) > Locality Configuration (config-locality-*locality_name*) > Endpoint Profile Configuration (config-endpoint-profile-*profile_name*)

Syntax Description **version uri-version** { *uri_version* | **full-version** *full_version* }

full-version *full_version*

Specify the full version in the format *major-version.minor-version.patch-version.[alpha-draft-number]*
Must be a string.

uri-version *uri_version*

Specify the URI version.
Must be a string in the pattern v\d.

Usage Guidelines Use this command to configure the URI version parameter.

profile nf-client nf-type smf smf-profile

Configures SMF profile parameters.

Command Modes Exec > Global Configuration (config)

Syntax Description `profile nf-client nf-type smf { smf-profile profile_name { locality locality_name | server-name server_name } | oauthenabled { true | false } }`

smf-profile *smf_profile_name*

Specify name of the SMF profile.

Must be a string.

locality *locality_name*

Specify the locality.

Must be a string.

server-name *server_name*

Specify the server name.

Must be a string.

oauthenabled { true | false }

Enable the oauthenabled profile configuration.

The default value is false.

Usage Guidelines Use this command to configure the SMF profile parameters. The CLI prompt changes to the SMF Profile Configuration mode (config-smf-profile-<profile_name>).

profile nf-client nf-type smf smf-profile locality

Configures the SMF profile locality parameter.

Command Modes	Exec > Global Configuration (config) > SMF Profile Configuration (config-smf-profile- <i>profile_name</i>)
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Syntax Description	locality <i>locality_name</i> [priority <i>priority</i>]
---------------------------	--

locality *locality_name*

Specify name of the locality.

Must be a string.

priority *priority*

Specify the priority of the locality configuration.

Must be an integer in the range of 0-65535.

Usage Guidelines	Use this command to configure the SMF profile locality parameter.
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profile nf-client nf-type smf smf-profile locality service name type

Configures the SMF service name type parameter.

Command Modes Exec > Global Configuration (config) > SMF NF-Client Configuration (config-smf) > SMF Profile Configuration (config-smf-profile-*profile_name*) > Locality Configuration (config-locality-*locality_name*)

Syntax Description **service name type** *smf_service_name_type* [**responsetimeout** *response_timeout*]

responsetimeout *response_timeout*

Specify the timeout interval in milliseconds.

Must be an integer.

Default Value: 2000.

type *smf_service_name_type*

Specify the service name type.

Must be one of the following:

- **nsmf-pdusession**

Usage Guidelines Use this command to configure the SMF service name type parameter. The CLI prompt changes to the Service Name Type Configuration mode (config-type-<service_name_type>).

profile nf-client nf-type smf smf-profile locality service name type endpoint-profile

Configures endpoint profile parameters. This command is common to multiple NF clients, and is available in the following configuration modes.

Command Modes	Exec > Global Configuration (config) > SMF NF-Client Configuration (config-smf) > SMF Profile Configuration (config-smf-profile- <i>profile_name</i>) > Locality Configuration (config-locality- <i>locality_name</i>) > Service Name Type Configuration (config-type- <i>service_name_type</i>)
Syntax Description	endpoint-profile <i>endpoint_profile_name</i> { capacity <i>capacity_value</i> priority <i>profile_priority</i> api-uri-prefix <i>api_uri_prefix</i> api-root <i>api_root</i> uri-scheme <i>uri_scheme</i> } api-root <i>api_root</i> Specify the API root. Must be a string. api-uri-prefix <i>api_uri_prefix</i> Specify the API URI prefix. Must be a string. capacity <i>capacity_value</i> Specify the profile capacity. Must be an integer in the range of 0-65535. Default Value: 10. endpoint-profile <i>endpoint_profile_name</i> Specify name of the endpoint profile. Must be a string. priority <i>profile_priority</i> Specify the priority of the profile. Must be an integer in the range of 0-65535. Default Value: 1. uri-scheme <i>uri_scheme</i> Specify the URI scheme. Must be one of the following: • http: HTTP.

- **https:** HTTPS.

Usage Guidelines

Use this command to configure endpoint profile parameters. The CLI prompt changes to the Endpoint Profile Configuration mode (config-endpoint-profile-<profile_name>).

profile nf-client nf-type smf smf-profile locality service name type endpoint-profile endpoint-name

Configures the endpoint name parameters. This command is common to multiple NF clients, and is available in the following configuration modes.

Command Modes	Exec > Global Configuration (config) > SMF NF-Client Configuration (config-smf) > SMF Profile Configuration (config-smf-profile-profile_name) > Locality Configuration (config-locality-locality_name) > Service Name Type Configuration (config-type-service_name_type) > Endpoint Profile Configuration (config-endpoint-profile-profile_name)
Syntax Description	endpoint-name <i>endpoint_name</i> [priority <i>node_priority</i> capacity <i>node_capacity</i>] capacity <i>node_capacity</i> Specify the node capacity for the endpoint. Must be an integer in the range of 0-65535. endpoint-name <i>endpoint_name</i> Specify name of the endpoint. You can configure the primary, secondary, and tertiary host (IP: Port) within each endpoint for NF server failover handling. The server failover configuration accepts both IPv4 and IPv6 addresses. However, the SMF gives preference to the IPv4 address. Must be a string. priority <i>node_priority</i> Specify the node priority for the endpoint. Must be an integer in the range of 0-65535.
Usage Guidelines	Use this configuration to configure the endpoint name parameters. The CLI prompt changes to the Endpoint Name Configuration mode (config-endpoint-name-<endpoint_name>).

profile nf-client nf-type smf smf-profile locality service name type endpoint-profile endpoint-name default-notification-subscriptions

Configures the Default Notification Subscription parameters. This command is common to multiple NF clients, and is available in the following configuration modes.

Command Modes

Exec > Global Configuration (config) > SMF NF-Client Configuration (config-smf) > SMF Profile Configuration (config-smf-profile-*profile_name*) > Locality Configuration (config-locality-*locality_name*) > Service Name Type Configuration (config-type-*service_name_type*) > Endpoint Profile Configuration (config-endpoint-profile-*profile_name*) > Endpoint Name Configuration (config-endpoint-name-*endpoint_name*)

Syntax Description

default-notification-subscriptions *name* [**callback-uri** *callback_uri* | **n1-message-class** *n1_message_class* | **n2-information-class** *n2_information_class* | **notification-type** *notification_type*]

callback-uri *callback_uri*

Specify the callback URI.

Must be a string.

n1-message-class *n1_message_class*

Specify the N1 Message Class.

Must be one of the following:

- 5GMM

n2-information-class *n2_information_class*

Specify the N2 Information Class.

Must be one of the following:

- RAN

notification-type *notification_type*

Specify the notification type.

Must be one of the following:

- DATA_CHANGE_NOTIFICATION
- DATA_REMOVAL_NOTIFICATION
- LOCATION_NOTIFICATION
- N1_MESSAGES

profile nf-client nf-type smf smf-profile locality service name type endpoint-profile endpoint-name default-notification-subscriptions

• N2_INFORMATION

name

Specify the name of the default notification subscriptions.
Must be a string.

Usage Guidelines Use this command to configure the Default Notification Subscription parameters. The CLI prompt changes to the Default Notification Subscriptions Configuration mode (config-default-notification-subscriptions-<name>)

profile nf-client nf-type smf smf-profile locality service name type endpoint-profile endpoint-name primary ip-address

Configures the endpoint IP address and port number parameters. This command is common to multiple NF clients, and is available in the following configuration modes.

Command Modes	Exec > Global Configuration (config) > SMF NF-Client Configuration (config-smf) > SMF Profile Configuration (config-smf-profile-profile_name) > Locality Configuration (config-locality-locality_name) > Service Name Type Configuration (config-type-service_name_type) > Endpoint Profile Configuration (config-endpoint-profile-profile_name) > Endpoint Name Configuration (config-endpoint-name-endpoint_name)
Syntax Description	{ primary secondary tertiary } ip-address { [ipv4 ipv4_address ipv6 ipv6_address] [port port_number] } ipv4 ipv4_address Specify the IPv4 address. Must be a string in the ipv4-address pattern. For information on the ipv4-address pattern, see the Input Pattern Types section. ipv6 ipv6_address Specify the IPv6 address. Must be a string in the ipv6-address pattern. For information on the ipv6-address pattern, see the Input Pattern Types section. port port_number Specify the port number. Must be an integer in the range of 0-65535.
Usage Guidelines	Use this command to configure the endpoint IP address and port number parameters.

profile nf-client nf-type smf smf-profile locality service name type endpoint-profile endpoint-name secondary ip-address

profile nf-client nf-type smf smf-profile locality service name type endpoint-profile endpoint-name secondary ip-address

Configures the endpoint IP address and port number parameters. This command is common to multiple NF clients, and is available in the following configuration modes.

Command Modes	Exec > Global Configuration (config) > SMF NF-Client Configuration (config-smf) > SMF Profile Configuration (config-smf-profile-profile_name) > Locality Configuration (config-locality-locality_name) > Service Name Type Configuration (config-type-service_name_type) > Endpoint Profile Configuration (config-endpoint-profile-profile_name) > Endpoint Name Configuration (config-endpoint-name-endpoint_name)
Syntax Description	{ primary secondary tertiary } ip-address { [ipv4 ipv4_address ipv6 ipv6_address] [port port_number] } ipv4 ipv4_address Specify the IPv4 address. Must be a string in the ipv4-address pattern. For information on the ipv4-address pattern, see the Input Pattern Types section. ipv6 ipv6_address Specify the IPv6 address. Must be a string in the ipv6-address pattern. For information on the ipv6-address pattern, see the Input Pattern Types section. port port_number Specify the port number. Must be an integer in the range of 0-65535.
Usage Guidelines	Use this command to configure the endpoint IP address and port number parameters.

profile nf-client nf-type smf smf-profile locality service name type endpoint-profile endpoint-name tertiary ip-address

Configures the endpoint IP address and port number parameters. This command is common to multiple NF clients, and is available in the following configuration modes.

Command Modes Exec > Global Configuration (config) > SMF NF-Client Configuration (config-smf) > SMF Profile Configuration (config-smf-profile-profile_name) > Locality Configuration (config-locality-locality_name) > Service Name Type Configuration (config-type-service_name_type) > Endpoint Profile Configuration (config-endpoint-profile-profile_name) > Endpoint Name Configuration (config-endpoint-name-endpoint_name)

Syntax Description { primary | secondary | tertiary } ip-address { [ipv4 ipv4_address | ipv6 ipv6_address] [port port_number] }

ipv4 ipv4_address

Specify the IPv4 address.

Must be a string in the ipv4-address pattern. For information on the ipv4-address pattern, see the Input Pattern Types section.

ipv6 ipv6_address

Specify the IPv6 address.

Must be a string in the ipv6-address pattern. For information on the ipv6-address pattern, see the Input Pattern Types section.

port port_number

Specify the port number.

Must be an integer in the range of 0-65535.

Usage Guidelines Use this command to configure the endpoint IP address and port number parameters.

profile nf-client nf-type smf smf-profile locality service name type endpoint-profile version uri-version

Configures the URI version parameter. This command is common to multiple NF clients, and is available in the following configuration modes.

Command Modes	Exec > Global Configuration (config) > SMF NF-Client Configuration (config-smf) > SMF Profile Configuration (config-smf-profile-profile_name) > Locality Configuration (config-locality-locality_name) > Endpoint Profile Configuration (config-endpoint-profile-profile_name)
Syntax Description	version uri-version { <i>uri_version</i> full-version <i>full_version</i> } full-version <i>full_version</i> Specify the full version in the format <i>major-version.minor-version.patch-version.[alpha-draft-number]</i> Must be a string. uri-version <i>uri_version</i> Specify the URI version. Must be a string in the pattern v\d.
Usage Guidelines	Use this command to configure the URI version parameter.

profile nf-client nf-type udm udm-profile

Configures UDM profile parameters.

Command Modes Exec > Global Configuration (config)

Syntax Description `profile nf-client nf-type udm { udm-profile profile_name { locality locality_name | server-name server_name } | oauthenabled { true | false } }`

udm-profile *udm_profile_name*

Specify name of the UDM profile.

Must be a string.

locality *locality_name*

Specify the locality.

Must be a string.

server-name *server_name*

Specify the server name.

Must be a string.

oauthenabled { true | false }

Enable the oauthenabled profile configuration.

The default value is false.

Usage Guidelines Use this command to configure the UDM profile parameters. The CLI prompt changes to the UDM Profile Configuration mode (config-udm-profile-<profile_name>).

profile nf-client nf-type udm udm-profile locality

Configures the UDM profile locality parameters.

Command Modes	Exec > Global Configuration (config) > UDM Profile Configuration (config-udm-profile- <i>profile_name</i>)
----------------------	---

Syntax Description	locality <i>locality_name</i> [priority <i>priority</i>]
---------------------------	--

locality *locality_name*

Specify name of the locality.

Must be a string.

priority *priority*

This keyword sets the priority for the locality configuration.

Must be an integer in the range of 0-65535.

Usage Guidelines	Use this command to configure the UDM profile locality parameter.
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profile nf-client nf-type udm udm-profile locality service name type

Configures the UDM service name type parameter.

Command Modes Exec > Global Configuration (config) > UDM NF-Client Configuration (config-udm) > UDM Profile Configuration (config-udm-profile-*profile_name*) > Locality Configuration (config-locality-*locality_name*)

Syntax Description **service name type** *service_name_type* [**responsetimeout** *response_timeout*]

responsetimeout response_timeout

Specify the response timeout interval in milliseconds.

Must be an integer.

Default Value: 2000.

type service_name_type

Specify the UDM service name type.

Must be one of the following:

- **nudm-ee**
- **nudm-pp**
- **nudm-sdm**
- **nudm-ueau**
- **nudm-uecm**

Usage Guidelines Use this command to configure the UDM service name type parameter. The CLI prompt changes to the Service Name Type Configuration mode (config-type-<service_name_type>).

profile nf-client nf-type udm udm-profile locality service name type endpoint-profile

Configures endpoint profile parameters. This command is common to multiple NF clients, and is available in the following configuration modes.

Command Modes

Exec > Global Configuration (config) > UDM NF-Client Configuration (config-udm) > UDM Profile Configuration (config-udm-profile-*profile_name*) > Locality Configuration (config-locality-*locality_name*) > Service Name Type Configuration (config-type-*service_name_type*)

Syntax Description

endpoint-profile *endpoint_profile_name* { **capacity** *capacity_value* | **priority** *profile_priority* | **api-uri-prefix** *api_uri_prefix* | **api-root** *api_root* | **uri-scheme** *uri_scheme* }

api-root *api_root*

Specify the API root.

Must be a string.

api-uri-prefix *api_uri_prefix*

Specify the API URI prefix.

Must be a string.

capacity *capacity_value*

Specify the profile capacity.

Must be an integer in the range of 0-65535.

Default Value: 10.

endpoint-profile *endpoint_profile_name*

Specify name of the endpoint profile.

Must be a string.

priority *profile_priority*

Specify the priority of the profile.

Must be an integer in the range of 0-65535.

Default Value: 1.

uri-scheme *uri_scheme*

Specify the URI scheme.

Must be one of the following:

- **http**: HTTP.

- **https:** HTTPS.

Usage Guidelines

Use this command to configure endpoint profile parameters. The CLI prompt changes to the Endpoint Profile Configuration mode (config-endpoint-profile-<profile_name>).

profile nf-client nf-type udm udm-profile locality service name type endpoint-profile endpoint-name

Configures the endpoint name parameters. This command is common to multiple NF clients, and is available in the following configuration modes.

Command Modes	Exec > Global Configuration (config) > UDM NF-Client Configuration (config-smf) > UDM Profile Configuration (config-udm-profile- <i>profile_name</i>) > Locality Configuration (config-locality- <i>locality_name</i>) > Service Name Type Configuration (config-type-service_name_type) > Endpoint Profile Configuration (config-endpoint-profile- <i>profile_name</i>)
Syntax Description	endpoint-name <i>endpoint_name</i> [priority <i>node_priority</i> capacity <i>node_capacity</i>] capacity <i>node_capacity</i> Specify the node capacity for the endpoint. Must be an integer in the range of 0-65535. endpoint-name <i>endpoint_name</i> Specify name of the endpoint. You can configure the primary, secondary, and tertiary host (IP: Port) within each endpoint for NF server failover handling. The server failover configuration accepts both IPv4 and IPv6 addresses. However, the SMF gives preference to the IPv4 address. Must be a string. priority <i>node_priority</i> Specify the node priority for the endpoint. Must be an integer in the range of 0-65535.
Usage Guidelines	Use this configuration to configure the endpoint name parameters. The CLI prompt changes to the Endpoint Name Configuration mode (config-endpoint-name-<endpoint_name>).

profile nf-client nf-type udm udm-profile locality service name type endpoint-profile endpoint-name default-notification-subscriptions

Configures the Default Notification Subscription parameters. This command is common to multiple NF clients, and is available in the following configuration modes.

Command Modes

Exec > Global Configuration (config) > UDM NF-Client Configuration (config-udm) > UDM Profile Configuration (config-udm-profile-*profile_name*) > Locality Configuration (config-locality-*locality_name*) > Service Name Type Configuration (config-type-*service_name_type*) > Endpoint Profile Configuration (config-endpoint-profile-*profile_name*) > Endpoint Name Configuration (config-endpoint-name-*endpoint_name*)

Syntax Description

default-notification-subscriptions *name* [**callback-uri** *callback_uri* | **n1-message-class** *n1_message_class* | **n2-information-class** *n2_information_class* | **notification-type** *notification_type*]

callback-uri *callback_uri*

Specify the callback URI.

Must be a string.

n1-message-class *n1_message_class*

Specify the N1 Message Class.

Must be one of the following:

- 5GMM

n2-information-class *n2_information_class*

Specify the N2 Information Class.

Must be one of the following:

- RAN

notification-type *notification_type*

Specify the notification type.

Must be one of the following:

- DATA_CHANGE_NOTIFICATION
- DATA_REMOVAL_NOTIFICATION
- LOCATION_NOTIFICATION
- N1_MESSAGES

profile nf-client nf-type udm udm-profile locality service name type endpoint-profile endpoint-name default-notification-subscriptions

- **N2_INFORMATION**

name

Specify the name of the default notification subscriptions.

Must be a string.

Usage Guidelines

Use this command to configure the Default Notification Subscription parameters. The CLI prompt changes to the Default Notification Subscriptions Configuration mode (config-default-notification-subscriptions-<name>)

profile nf-client nf-type udm udm-profile locality service name type endpoint-profile endpoint-name primary ip-address

Configures the endpoint IP address and port number parameters. This command is common to multiple NF clients, and is available in the following configuration modes.

Command Modes	Exec > Global Configuration (config) > UDM NF-Client Configuration (config-udm) > UDM Profile Configuration (config-udm-profile-profile_name) > Locality Configuration (config-locality-locality_name) > Service Name Type Configuration (config-type-service_name_type) > Endpoint Profile Configuration (config-endpoint-profile-profile_name) > Endpoint Name Configuration (config-endpoint-name-endpoint_name)
Syntax Description	{ primary secondary tertiary } ip-address { [ipv4 ipv4_address ipv6 ipv6_address] [port port_number] } ipv4 ipv4_address Specify the IPv4 address. Must be a string in the ipv4-address pattern. For information on the ipv4-address pattern, see the Input Pattern Types section. ipv6 ipv6_address Specify the IPv6 address. Must be a string in the ipv6-address pattern. For information on the ipv6-address pattern, see the Input Pattern Types section. port port_number Specify the port number. Must be an integer in the range of 0-65535.
Usage Guidelines	Use this command to configure the endpoint IP address and port number parameters.

Configures the endpoint IP address and port number parameters. This command is common to multiple NF clients, and is available in the following configuration modes.

Must be an integer in the range of 0-65535.

profile nf-client nf-type udm udm-profile locality service name type endpoint-profile endpoint-name tertiary ip-address

Configures the endpoint IP address and port number parameters. This command is common to multiple NF clients, and is available in the following configuration modes.

Command Modes Exec > Global Configuration (config) > UDM NF-Client Configuration (config-udm) > UDM Profile Configuration (config-udm-profile-profile_name) > Locality Configuration (config-locality-locality_name) > Service Name Type Configuration (config-type-service_name_type) > Endpoint Profile Configuration (config-endpoint-profile-profile_name) > Endpoint Name Configuration (config-endpoint-name-endpoint_name)

Syntax Description { primary | secondary | tertiary } ip-address { [ipv4 ipv4_address | ipv6 ipv6_address] [port port_number] }

ipv4 ipv4_address

Specify the IPv4 address.

Must be a string in the ipv4-address pattern. For information on the ipv4-address pattern, see the Input Pattern Types section.

ipv6 ipv6_address

Specify the IPv6 address.

Must be a string in the ipv6-address pattern. For information on the ipv6-address pattern, see the Input Pattern Types section.

port port_number

Specify the port number.

Must be an integer in the range of 0-65535.

Usage Guidelines Use this command to configure the endpoint IP address and port number parameters.

profile nf-client nf-type udm udm-profile locality service name type endpoint-profile version uri-version

Configures the URI version parameter. This command is common to multiple NF clients, and is available in the following configuration modes.

Command Modes	Exec > Global Configuration (config) > UDM NF-Client Configuration (config-udm) > UDM Profile Configuration (config-udm-profile- <i>profile_name</i>) > Locality Configuration (config-locality- <i>locality_name</i>) > Endpoint Profile Configuration (config-endpoint-profile- <i>profile_name</i>)
Syntax Description	version uri-version { <i>uri_version</i> full-version <i>full_version</i> } full-version <i>full_version</i> Specify the full version in the format <i>major-version.minor-version.patch-version.[alpha-draft-number]</i> Must be a string. uri-version <i>uri_version</i> Specify the URI version. Must be a string in the pattern v\d.
Usage Guidelines	Use this command to configure the URI version parameter.

profile nf-client-failure nf-type amf

Configures the AMF Profile Failure Handling parameters.

Command Modes	Exec > Global Configuration (config)
Syntax Description	<code>profile nf-client-failure nf-type amf</code>
Usage Guidelines	Use this command to configure the AMF Profile Failure Handling parameters. The CLI prompt changes to the AMF Configuration mode (config-amf).

profile nf-client-failure nf-type amf profile failure-handling

Configures the AMF Failure Handling Template parameters.

Command Modes	Exec > Global Configuration (config) > AMF NF Client Failure Configuration (config-amf)
----------------------	---

Syntax Description	profile failure-handling <i>fh_template_name</i>
---------------------------	---

failure-handling *fh_template_name*

Specify name of the AMF failure handling template.

Must be a string.

Usage Guidelines	Use this command to configure the AMF Failure Handling Template parameters. The CLI prompt changes to the Failure Handling <profile_name> Configuration (config-failure-handling-<profile_name>).
-------------------------	---

profile nf-client-failure nf-type amf profile failure-handling service name type

Configures the AMF Failure Handling parameters.

Command Modes Exec > Global Configuration (config) > AMF NF-Client Configuration (config-amf) > Failure Handling Profile Configuration (config-failure-handling-*profile_name*)

Syntax Description **service name type** *amf_service_name_type* [**responsetimeout** *response_timeout*]

responsetimeout *response_timeout*

Specify the response timeout interval in milliseconds.

Must be an integer.

Default Value: 2000.

type *amf_service_name_type*

Specify the AMF service name type.

Must be one of the following:

- **namf-comm**
- **namf-evts**
- **namf-loc**
- **namf-mt**

Usage Guidelines Use this command to configure AMF Failure Handling parameters. The CLI prompt changes to the Failure Handling Service Name Type Configuration mode (config-type-<service_name_type>)

profile nf-client-failure nf-type amf profile failure-handling service name type message type

Configures the AMF message type parameters.

Command Modes	Exec > Global Configuration (config) > AMF NF Client Configuration (config-amf) > Failure Handling Configuration (config-failure-handling-profile_name) > Failure Handling Service Name Type Configuration (config-type-service_name_type)
Syntax Description	message type amf_message_type type amf_message_type Specify the AMF message type. Must be one of the following: • AmfCommCreateUeContext • AmfCommEBIAssignment • AmfCommN1N2MessageTransfer • AmfCommSMStatusChangeNotify • AmfCommUeContextTransfer • AmfCommUeContextTransferUpdate • AmfN1MessageNotifyClient
Usage Guidelines	Use this command to configure the AMF message type parameters.

profile nf-client-failure nf-type amf profile failure-handling service name type message type status-code httpv2

Configures HTTPv2 status codes. This command is common to multiple NF clients, and is available in the following configuration modes.

Command Modes Exec > Global Configuration (config) > AMF NF Client Configuration (config-amf) > Failure Handling Configuration (config-failure-handling-*profile_name*) > Failure Handling Service Name Type Configuration (config-type-service_name_type) > Failure Handling Message Type Configuration (config-type-message_type_name)

Syntax Description **status-code httpv2 { range *httpv2_range* } { action *action* | retransmit *retransmit* | retransmit-interval *retransmit_interval* | retry *retry_value* }**

action *action*

Specify the action.

Must be one of the following:

- **continue:** Specify to continue the session without any retry. The retry count configuration is invalid with this action.
- **retry-and-continue:** Specify to retry as per the configured retry count and continue the session.
- **retry-and-ignore:** Specify to retry as per the configured retry count and ignore the session in case all retry fails.
- **retry-and-terminate:** Specify to retry as per the configured retry count and terminate the session in case all retry fails.
- **terminate:** Specify to terminate the session without any retry. Retry count configuration is invalid with this action.

status-code httpv2 *httpv2_range*

Specify the code, or a range of status codes separated by either - (hyphen) or , (comma).

retransmit-interval *retransmit_interval*

Specify the retransmit interval in milliseconds.

Must be an integer.

retransmit *retransmit*

Specify the retransmit value.

Must be an integer in the range of 1-10.

retry *retry_value*

Specify the number of times the NF service must retry before proceeding with the action.

profile nf-client-failure nf-type amf profile failure-handling service name type message type status-code httpv2

Must be an integer in the range of 1-10.

Usage Guidelines Use this command to configure HTTPv2 status codes.

profile nf-client-failure nf-type ausf

Configures AUSF Profile Failure Handling parameters.

Command Modes	Exec > Global Configuration (config)
Syntax Description	profile nf-client-failure nf-type ausf
Usage Guidelines	Use this command to configure AUSF Profile Failure Handling parameters. The CLI prompt changes to the AUSF Configuration mode (config-ausf).

profile nf-client-failure nf-type ausf profile failure-handling

Configures the AUSF Failure Handling Template parameters.

Command Modes	Exec > Global Configuration (config) > AUSF NF Client Failure Configuration (config-ausf)
----------------------	---

Syntax Description	profile failure-handling <i>fh_template_name</i>
---------------------------	---

failure-handling *fh_template_name*

Specify name of the AUSF failure handling template.

Must be a string.

Usage Guidelines	Use this command to configure the AUSF Failure Handling Template parameters. The CLI prompt changes to the Failure Handling Profile Configuration mode (config-failure-handling-<profile_name>).
-------------------------	--

profile nf-client-failure nf-type ausf profile failure-handling service name type

Configures the AUSF Failure Handling parameters.

Command Modes Exec > Global Configuration (config) > AUSF Configuration (config-ausf) > Failure Handling Profile Configuration (config-failure-handling-*profile_name*)

Syntax Description **service name type** *ausf_service_name_type* [**responsetimeout** *response_timeout*]

responsetimeout *response_timeout*

Specify the response timeout.

Must be an integer.

Default Value: 2000.

type *ausf_service_name_type*

Specify the AUSF service name type.

Must be one of the following:

- **nausf-auth**

Usage Guidelines Use this command to configure the AUSF Failure Handling parameters.

profile nf-client-failure nf-type ausf profile failure-handling service name type message type

Configures the AUSF message type parameters.

Command Modes Exec > Global Configuration (config) > AUSF NF Client Configuration (config-ausf) > Failure Handling Configuration (config-failure-handling-profile_name) > Failure Handling Service Name Type Configuration (config-type-service_name_type)

Syntax Description **message type** ausf_message_type

type ausf_message_type

Specify the AUSF message type.

Must be one of the following:

- AusfAuthenticationCfm
- AusfAuthenticationReq

Usage Guidelines Use this command to configure the AUSF message type parameters.

profile nf-client-failure nf-type ausf profile failure-handling service name type message type status-code httpv2

Configures HTTPv2 status codes. This command is common to multiple NF clients, and is available in the following configuration modes.

Command Modes

Exec > Global Configuration (config) > AUSF NF Client Configuration (config-ausf) > Failure Handling Configuration (config-failure-handling-*profile_name*) > Failure Handling Service Name Type Configuration (config-type-service_name_type) > Failure Handling Message Type Configuration (config-type-message_type_name)

Syntax Description

status-code httpv2 { range *httpv2_range* } { action *action* | retransmit *retransmit* | retransmit-interval *retransmit_interval* | retry *retry_value* }

action *action*

Specify the action.

Must be one of the following:

- **continue**: Specify to continue the session without any retry. The retry count configuration is invalid with this action.
- **retry-and-continue**: Specify to retry as per the configured retry count and continue the session.
- **retry-and-ignore**: Specify to retry as per the configured retry count and ignore the session in case all retry fails.
- **retry-and-terminate**: Specify to retry as per the configured retry count and terminate the session in case all retry fails.
- **terminate**: Specify to terminate the session without any retry. Retry count configuration is invalid with this action.

status-code httpv2 *httpv2_range*

Specify the code, or a range of status codes separated by either - (hyphen) or , (comma).

retransmit-interval *retransmit_interval*

Specify the retransmit interval in milliseconds.

Must be an integer.

retransmit *retransmit*

Specify the retransmit value.

Must be an integer in the range of 1-10.

retry *retry_value*

Specify the number of times the NF service must retry before proceeding with the action.

profile nf-client-failure nf-type ausf profile failure-handling service name type message type status-code httpv2

Must be an integer in the range of 1-10.

Usage Guidelines Use this command to configure HTTPv2 status codes.

profile nf-client-failure nf-type eir

Configures EIR Profile Failure Handling parameters.

Command Modes	Exec > Global Configuration (config)
Syntax Description	profile nf-client-failure nf-type eir
Usage Guidelines	Use this command to configure EIR Profile Failure Handling parameters. The CLI prompt changes to the EIR Configuration mode (config-eir).

profile nf-client-failure nf-type eir profile failure-handling

Configures the EIR Failure Handling Template parameters.

Command Modes Exec > Global Configuration (config) > EIR NF Client Failure Configuration (config-eir)

Syntax Description **profile failure-handling** *fh_template_name*

failure-handling *fh_template_name*

Specify name of the EIR failure handling template.
Must be a string.

Usage Guidelines Use this command to configure the EIR Failure Handling Template parameters.

profile nf-client-failure nf-type eir profile failure-handling service name type

Configures the EIR Failure Handling parameters.

Command Modes Exec > Global Configuration (config) > EIR NF-Client Configuration (config-eir) > Failure Handling Profile Configuration (config-failure-handling-*profile_name*)

Syntax Description **service name type** *eir_service_name_type* [**responsetimeout** *response_timeout*]

responsetimeout *response_timeout*

Specify the response timeout interval in milliseconds.

Must be an integer.

Default Value: 2000.

type *eir_service_name_type*

Specify the EIR service name type.

Must be one of the following:

- **n5g-eir-eic**

Usage Guidelines Use this command to configure the EIR Failure Handling parameters.

profile nf-client-failure nf-type eir profile failure-handling service name type message type

Specify the EIR message type parameters.

Command Modes Exec > Global Configuration (config) > EIR Configuration (config-eir) > Failure Handling *profile_name* Configuration (config-failure-handling-*profile_name*) > Failure Handling Service Name Type Configuration (config-type-service_name_type)

Syntax Description **message type** *eir_message_type*

type *eir_message_type*

Specify the EIR message type.

Must be one of the following:

- EirCheckEquipmentIdentity

Usage Guidelines Use this command to configure the EIR message type parameters.

profile nf-client-failure nf-type eir profile failure-handling service name type message type status-code httpv2

Configures HTTPv2 status codes. This command is common to multiple NF clients, and is available in the following configuration modes.

Command Modes Exec > Global Configuration (config) > EIR NF Client Configuration (config-eir) > Failure Handling Configuration (config-failure-handling-profile_name) > Failure Handling Service Name Type Configuration (config-type-service_name_type) > Failure Handling Message Type Configuration (config-type-message_type_name)

Syntax Description **status-code httpv2 { range httpv2_range } { action action | retransmit retransmit | retransmit-interval retransmit_interval | retry retry_value }**

action action

Specify the action.

Must be one of the following:

- **continue**: Specify to continue the session without any retry. The retry count configuration is invalid with this action.
- **retry-and-continue**: Specify to retry as per the configured retry count and reject the registration with appropriate cause.
- **retry-and-ignore**: Specify to retry as per the configured retry count and continue with the registration.
- **retry-and-terminate**: Specify to retry as per the configured retry count and terminate the session in case all retry fails.
- **terminate**: Specify to terminate the session without any retry. Retry count configuration is invalid with this action.

status-code httpv2 httpv2_range

Specify the code, or a range of status codes separated by either - (hyphen) or , (comma).

retransmit-interval retransmit_interval

Specify the retransmit interval in milliseconds.

Must be an integer.

retransmit retransmit

Specify the retransmit value.

Must be an integer in the range of 1-10.

retry retry_value

Specify the number of times the NF service must retry before proceeding with the action.

profile nf-client-failure nf-type eir profile failure-handling service name type message type status-code httpv2

Must be an integer in the range of 1-10.

Usage Guidelines Use this command to configure HTTPv2 status codes.

profile nf-client-failure nf-type gmlc

Configures GMLC profile failure handling parameters.

Command Modes	Exec > Global Configuration (config)
Syntax Description	profile nf-client-failure nf-type gmlc
Usage Guidelines	Use this command to configure GMLC failure handling parameters. The CLI prompt changes to the GMLC Configuration mode (config-gmlc).

profile nf-client-failure nf-type gmlc profile failure-handling

Configures the GMLC Failure Handling Profile parameters.

Command Modes

Exec > Global Configuration (config) > GMLC NF Client Failure Configuration (config-gmlc)

Syntax Description

profile failure-handling *fh_profile_name*

failure-handling *fh_profile_name*

Specify name of the GMLC failure handling profile.

Must be a string.

Usage Guidelines

Use this command to configure the GMLC Failure Handling Profile parameters. The CLI prompt changes to the Failure Handling <profile_name> Configuration (config-failure-handling-<profile_name>).

profile nf-client-failure nf-type gmlc profile failure-handling service name type

Configures the GMLC service name type.

Command Modes Exec > Global Configuration (config) > GMLC Configuration (config-gmlc) > Failure Handling *profile_name*
Configuration mode (config-failure-handling-*profile_name*)

Syntax Description **service name type** *gmlc_service_name_type* [**responsetimeout** *response_timeout*]

service name type *gmlc_service_name_type*

Specify the GMLC service name type.

Must be one of the following:

- ngmlc-loc

responsetimeout *response_timeout*

Specify the response timeout interval in milliseconds. Default value is 2000 milliseconds.

Must be an integer.

Usage Guidelines Use this command to configure the GMLC service name type.

profile nf-client-failure nf-type gmlc profile failure-handling service name type message type

Configures the GMLC message type parameters.

Command Modes Exec > Global Configuration (config) > GMLC Configuration (config-gmlc) > Failure Handling *profile_name* Configuration mode (config-failure-handling-*profile_name*) > Failure Handling Service Name Type Configuration (config-type-*service_name_type*)

Syntax Description **message type** *gmlc_message_type*

type *gmlc_message_type*

Specify the GMLC message type as one of the following:

- AmfEventNotification
- NotifiedPosInfo

Usage Guidelines Use this command to configure the GMLC message type parameters.

profile nf-client-failure nf-type gmlc profile failure-handling service name type message type status-code httpv2

Configures HTTPv2 status code.

Command Modes Exec > Global Configuration (config) > GMLC NF Client Configuration (config-gmlc) > Failure Handling Configuration (config-failure-handling-*profile_name*) > Failure Handling Service Name Type Configuration (config-type-service_name_type) > Failure Handling Message Type Configuration (config-type-message_type_name)

Syntax Description **status-code httpv2 { range httpv2_range } | action action | retransmit retransmit | retransmit-interval retransmit_interval | rety-count retry_count }**

action action

Specify the action as.

- **retry-and-ignore**: Configure this value to retry the action and if the retry fails, ignore the error and continue with failure handling process, as expected.

status-code httpv2 httpv2_range

Specify the code, or a range of status codes separated by either - (hyphen) or , (comma).

retransmit-interval retransmit_interval

Specify the retransmit interval in milliseconds.

Must be an integer.

retransmit retransmit

Specify the retransmit value.

Must be an integer in the range of 1-10.

rety-count retry_count

Specify the number for the retry count.

Must be an integer.

Usage Guidelines Use this command to configure HTTPv2 status codes.

profile nf-client-failure nf-type lmf

Configures LMF profile failure handling parameters.

Command Modes

Exec > Global Configuration (config)

Syntax Description

profile nf-client-failure nf-type lmf

Usage Guidelines

Use this command to configure LMF failure handling parameters. The CLI prompt changes to the LMF Configuration mode (config-lmf).

profile nf-client-failure nf-type lmf profile failure-handling

Configures the LMF Failure Handling Template parameters.

Command Modes Exec > Global Configuration (config) > LMF NF Client Failure Configuration (config-lmf)

Syntax Description **profile failure-handling** *fh_template_name*

failure-handling *fh_template_name*

Specify name of the LMF failure handling template.

Must be a string.

Usage Guidelines Use this command to configure the LMF Failure Handling Template parameters. The CLI prompt changes to the Failure Handling <profile_name> Configuration (config-failure-handling-<profile_name>).

profile nf-client-failure nf-type lmf profile failure-handling service name type

Configures the LMF service name type.

Command Modes Exec > Global Configuration (config) > LMF Configuration (config-lmf) > Failure Handling *profile_name*
Configuration mode (config-failure-handling-*profile_name*)

Syntax Description **service name type** *lmf_service_name_type* **responsetimeout** *response_timeout* }

responsetimeout *response_timeout*

Specify the response timeout.
Must be an integer.

type *lmf_service_name_type*

Specify the LMF service name type.
Must be one of the following:
• **nlmf-loc**

Usage Guidelines Use this command to configure the LMF service name type.

profile nf-client-failure nf-type lmf profile failure-handling service name type message type

Configures the LMF message type parameters.

Command Modes Exec > Global Configuration (config) > LMF Configuration (config-lmf) > Failure Handling *profile_name* Configuration mode (config-failure-handling-*profile_name*) > Failure Handling Service Name Type Configuration (config-type-service_name_type)

Syntax Description **message type** *lmf_message_type*

type *lmf_message_type*

Specify the LMF message type.

Must be one of the following:

- **LmfDetermineLocation**
- **LmfN1MessageNotify**
- **LmfN2InfoNotify**

Usage Guidelines Use this command to configure the LMF message type parameters.

profile nf-client-failure nf-type lmf profile failure-handling service name type message type status-code httpv2

Configures HTTPv2 status codes.

Command Modes	Exec > Global Configuration (config) > LMF NF Client Configuration (config-lmf) > Failure Handling Configuration (config-failure-handling-profile_name) > Failure Handling Service Name Type Configuration (config-type-service_name_type) > Failure Handling Message Type Configuration (config-type-message_type_name)
Syntax Description	status-code httpv2 { range httpv2_range } { action action retransmit retransmit retransmit-interval retransmit_interval retry retry_value } action action Specify the action. Must be one of the following: continue: Specify to continue the session without any retry. The retry count configuration is invalid with this action. retry-and-continue: Specify to retry as per the configured retry count and continue the session. retry-and-ignore: Specify to retry as per the configured retry count and ignore if retry count is exhausted. status-code httpv2 httpv2_range Specify the code, or a range of status codes separated by either - (hyphen) or , (comma). retransmit-interval retransmit_interval Specify the retransmit interval in milliseconds. Must be an integer. retransmit retransmit Specify the retransmit value. Must be an integer in the range of 1-10. retry retry_value Specify the number of times the NF service must retry before proceeding with the action. Must be an integer in the range of 1-10.
Usage Guidelines	Use this command to configure HTTPv2 status codes.

profile nf-client-failure nf-type nssf

Configures NSSF Profile Failure Handling parameters.

Command Modes	Exec > Global Configuration (config)
Syntax Description	<code>profile nf-client-failure nf-type nssf</code>
Usage Guidelines	Use this command to configure NSSF Failure Handling parameters. The CLI prompt changes to the NSSF Configuration mode (config-nssf).

profile nf-client-failure nf-type nssf profile failure-handling

Configures the NSSF Failure Handling Template parameters.

Command Modes	Exec > Global Configuration (config) > NSSF NF Client Failure Configuration (config-nssf)
----------------------	---

Syntax Description	profile failure-handling <i>fh_template_name</i>
---------------------------	---

failure-handling *fh_template_name*

Specify name of the NSSF failure handling template.

Must be a string.

Usage Guidelines	Use this command to configure the NSSF Failure Handling Template parameters.
-------------------------	--

profile nf-client-failure nf-type nssf profile failure-handling service name type

Configures the NSSF Failure Handling parameters.

Command Modes Exec > Global Configuration (config) > NSSF NF-Client Configuration (config-nssf) > Failure Handling Profile Configuration (config-failure-handling-*profile_name*)

Syntax Description **service name type** *nssf_service_name_type* [**responsetimeout** *response_timeout*]

responsetimeout *response_timeout*

Specify the response timeout interval in milliseconds.
Must be an integer.
Default Value: 2000.

type *nssf_service_name_type*

Specify the NSSF service name type.
Must be one of the following:
• **nnssf-nsselection**

Usage Guidelines Use this command to configure the NSSF Failure Handling parameters.

profile nf-client-failure nf-type nssf profile failure-handling service name type message type

Configures the NSSF message type parameters.

Command Modes Exec > Global Configuration (config) > NSSF NF Client Configuration (config-nssf) > Failure Handling Configuration (config-failure-handling-profile_name) > Failure Handling Service Name Type Configuration (config-type-service_name_type)

Syntax Description **message type** nssf_message_type

type nssf_message_type

Specify the NSSF message type.

Must be one of the following:

- NssfNSSelectionReq

Usage Guidelines Use this command to configure the NSSF message type parameters.

profile nf-client-failure nf-type nssf profile failure-handling service name type message type status-code httpv2

Configures HTTPv2 status codes. This command is common to multiple NF clients, and is available in the following configuration modes.

Command Modes Exec > Global Configuration (config) > NSSF NF Client Configuration (config-nssf) > Failure Handling Configuration (config-failure-handling-*profile_name*) > Failure Handling Service Name Type Configuration (config-type-service_name_type) > Failure Handling Message Type Configuration (config-type-message_type_name)

Syntax Description **status-code httpv2 { range *httpv2_range* } { action *action* | retransmit *retransmit* | retransmit-interval *retransmit_interval* | retry *retry_value* }**

action *action*

Specify the action.

Must be one of the following:

- **continue:** Specify to continue the session without any retry. The retry count configuration is invalid with this action.
- **retry-and-continue:** Specify to retry as per the configured retry count and continue the session.
- **retry-and-ignore:** Specify to retry as per the configured retry count and ignore the session in case all retry fails.
- **retry-and-terminate:** Specify to retry as per the configured retry count and terminate the session in case all retry fails.
- **terminate:** Specify to terminate the session without any retry. Retry count configuration is invalid with this action.

status-code httpv2 *httpv2_range*

Specify the code, or a range of status codes separated by either - (hyphen) or , (comma).

retransmit-interval *retransmit_interval*

Specify the retransmit interval in milliseconds.

Must be an integer.

retransmit *retransmit*

Specify the retransmit value.

Must be an integer in the range of 1-10.

retry *retry_value*

Specify the number of times the NF service must retry before proceeding with the action.

profile nf-client-failure nf-type nssf profile failure-handling service name type message type status-code httpv2

Must be an integer in the range of 1-10.

Usage Guidelines Use this command to configure HTTPv2 status codes.

profile nf-client-failure nf-type pcf

Configures PCF Profile Failure Fandling parameters.

Command Modes	Exec > Global Configuration (config)
Syntax Description	<code>profile nf-client-failure nf-type pcf</code>
Usage Guidelines	Use this command to configure PCF Profile Failure Handling parameters. The CLI prompt changes to the PCF Configuration mode (config-pcf).

profile nf-client-failure nf-type pcf profile failure-handling

Configures the PCF Failure Handling Template parameters.

Command Modes	Exec > Global Configuration (config) > PCF NF Client Failure Configuration (config-pcf)
----------------------	---

Syntax Description	profile failure-handling <i>fh_template_name</i>
---------------------------	---

failure-handling *fh_template_name*

Specify name of the PCF failure handling template.

Must be a string.

Usage Guidelines	Use this command to configure the PCF Failure Handling Template parameters.
-------------------------	---

profile nf-client-failure nf-type pcf profile failure-handling service name type

Configures the PCF Failure Handling parameters.

Command Modes Exec > Global Configuration (config) > PCF NF-Client Configuration (config-pcf) > Failure Handling Profile Configuration (config-failure-handling-*profile_name*)

Syntax Description **service name type** *pcf_service_name_type* [**responsetimeout** *response_timeout*]

responsetimeout *response_timeout*

Specify the response timeout interval in milliseconds.

Must be an integer.

Default Value: 2000.

type *pcf_service_name_type*

Specify the PCF service name type.

Must be one of the following:

- **npcf-am-policy-control**
- **npcf-bdtpolicycontrol**
- **npcf-eventexposure**
- **npcf-policyauthorization**
- **npcf-smpolicycontrol**
- **npcf-ue-policy-control**

Usage Guidelines Use this command to configure the PCF Failure handling parameters.

profile nf-client-failure nf-type pcf profile failure-handling service name type message type

Configures the PCF message type parameters.

Command Modes	Exec > Global Configuration (config) > PCF NF Client Configuration (config-pcf) > Failure Handling Configuration (config-failure-handling- <i>profile_name</i>) > Failure Handling Service Name Type Configuration (config-type-service_name_type)
Syntax Description	message type <i>pcf_message_type</i> type <i>pcf_message_type</i> Specify the PCF message type. Must be one of the following: • PcfAmfPolicyControlCreate • PcfAmfPolicyControlDelete • PcfSmpolicycontrolCreate • PcfSmpolicycontrolDelete • PcfSmpolicycontrolUpdate
Usage Guidelines	Use this command to configure the PCF message type parameters.

profile nf-client-failure nf-type pcf profile failure-handling service name type message type status-code httpv2

Configures HTTPv2 status codes. This command is common to multiple NF clients, and is available in the following configuration modes.

Command Modes Exec > Global Configuration (config) > PCF NF Client Configuration (config-pcf) > Failure Handling Configuration (config-failure-handling-*profile_name*) > Failure Handling Service Name Type Configuration (config-type-service_name_type) > Failure Handling Message Type Configuration (config-type-message_type_name)

Syntax Description **status-code httpv2 { range *httpv2_range* } { action *action* | retransmit *retransmit* | retransmit-interval *retransmit_interval* | retry *retry_value* }**

action *action*

Specify the action.

Must be one of the following:

- **continue**: Specify to continue the session without any retry. The retry count configuration is invalid with this action.
- **retry-and-continue**: Specify to retry as per the configured retry count and continue the session.
- **retry-and-ignore**: Specify to retry as per the configured retry count and ignore the session in case all retry fails.
- **retry-and-terminate**: Specify to retry as per the configured retry count and terminate the session in case all retry fails.
- **terminate**: Specify to terminate the session without any retry. Retry count configuration is invalid with this action.

status-code httpv2 *httpv2_range*

Specify the code, or a range of status codes separated by either - (hyphen) or , (comma).

retransmit-interval *retransmit_interval*

Specify the retransmit interval in milliseconds.

Must be an integer.

retransmit *retransmit*

Specify the retransmit value.

Must be an integer in the range of 1-10.

retry *retry_value*

Specify the number of times the NF service must retry before proceeding with the action.

profile nf-client-failure nf-type pcf profile failure-handling service name type message type status-code httpv2

Must be an integer in the range of 1-10.

Usage Guidelines Use this command to configure HTTPv2 status codes.

profile nf-client-failure nf-type scp

Configures the failure handling for NF clients using specific service and error handling parameters.

Command Modes

Exec > Global Configuration (config) > NF Client Failure Configuration (config-nf-client-failure-*nf_type*)

Syntax Description

```
profile nf-client-failure nf-type nf_type [profile failure-handling
failure_handlr_profile_name [service-name-type service_name_type [responsetimeout
responsetimeout_value | message type message_type { status-code
status_code | retry retry_count | action { continue | retry-and-continue |
retry-and-fallback | retry-and-ignore | retry-and-terminate | terminate
} | nf-action { continue | retry-and-fallback | retry-and-ignore |
terminate } } ] ] ]
```

```
profile nf-client-failure nf-type nf_type [profile failure-handling failure_handling_profile_name [
service-name-type service_name_type [responsetimeout responsetimeout_value | message type
message_type { status-code status_code | retry retry_count | action { continue | retry-and-continue |
retry-and-fallback | retry-and-ignore | retry-and-terminate | terminate } | nf-action { continue | retry-and-fallback
| retry-and-ignore | terminate } } ] ] ]
```

- **profile nf-client-failure nf-type** *nf_type* —Specify the NF client failure configuration.
- **profile failure-handling** *failure_handling_profile_name* —Specify the failure handling profile name.
- **service-name-type** *service_name_type* —Specify the the service name and type.
- **responsetimeout** *responsetimeout_value* —Specify the responsetimeout value in milliseconds.
- **message type** *message_type* —Specify the the message type.
- **status-code** *status_code* —Specify the status code for http2 error or DNS failure.
- **retry** *retry_count* —Specify the retry count.
- **action** { **continue** | **retry-and-continue** | **retry-and-fallback** | **retry-and-ignore** | **retry-and-terminate** | **terminate** } —Specify any action from the preceding options for retry.
- **nf-action** { **continue** | **retry-and-fallback** | **retry-and-ignore** | **terminate** } —Specify NF action from the preceding options for retry.

Usage Guidelines

Use this command to configure failure handling and its related action.

profile nf-client-failure nf-type smf

Configures SMF Profile Failure Handling parameters.

Command Modes

Exec > Global Configuration (config)

Syntax Description

profile nf-client-failure nf-type smf

Usage Guidelines

Use this command to configure SMF Profile Failure Handling parameters. The CLI prompt changes to the SMF Configuration mode (config-smf).

profile nf-client-failure nf-type smf profile failure-handling

Configures the SMF Failure Handling Template parameters.

Command Modes Exec > Global Configuration (config) > SMF NF Client Failure Configuration (config-smf)

Syntax Description **profile failure-handling** *fh_template_name*

failure-handling *fh_template_name*

Specify name of the SMF failure handling template.

Must be a string.

Usage Guidelines Use this command to configure the SMF Failure Handling Template parameters.

profile nf-client-failure nf-type smf profile failure-handling service name type

Configures the SMF Failure Handling parameters.

Command Modes Exec > Global Configuration (config) > SMF NF-Client Configuration (config-smf) > Failure Handling Profile Configuration (config-failure-handling-profile_name)

Syntax Description **service name type** *smf_service_name_type* [**responsetimeout** *response_timeout*]

responsetimeout *response_timeout*

Specify the response timeout interval in milliseconds.

Must be an integer.

Default Value: 2000.

type *smf_service_name_type*

Specify the SMF service name type.

Must be one of the following:

- **nsmf-pdusession**

Usage Guidelines Use this command to configure the SMF Failure Handling parameters.

profile nf-client-failure nf-type smf profile failure-handling service name type message type

Configures the SMF message type parameters.

Command Modes Exec > Global Configuration (config) > SMF NF Client Configuration (config-smf) > Failure Handling Configuration (config-failure-handling-*profile_name*) > Failure Handling Service Name Type Configuration (config-type-service_name_type)

Syntax Description **message type** *smf_message_type*

type *smf_message_type*

Specify the SMF message type.

Must be one of the following:

- SmfN1N2MsgTxfrFailureNotification
- SmfSmContextCreate
- SmfSmContextDelete
- SmfSmContextRetrieve
- SmfSmContextUpdate

Usage Guidelines Use this command to configure the SMF message type parameters.

profile nf-client-failure nf-type smf profile failure-handling service name type message type status-code httpv2

Configures HTTPv2 status codes. This command is common to multiple NF clients, and is available in the following configuration modes.

Command Modes

Exec > Global Configuration (config) > SMF NF Client Configuration (config-smf) > Failure Handling Configuration (config-failure-handling-profile_name) > Failure Handling Service Name Type Configuration (config-type-service_name_type) > Failure Handling Message Type Configuration (config-type-message_type_name)

Syntax Description

status-code httpv2 { range httpv2_range } { action action | retransmit retransmit | retransmit-interval retransmit_interval | retry retry_value }

action action

Specify the action.

Must be one of the following:

- **continue**: Specify to continue the session without any retry. The retry count configuration is invalid with this action.
- **retry-and-continue**: Specify to retry as per the configured retry count and continue the session.
- **retry-and-ignore**: Specify to retry as per the configured retry count and ignore the session in case all retry fails.
- **retry-and-terminate**: Specify to retry as per the configured retry count and terminate the session in case all retry fails.
- **terminate**: Specify to terminate the session without any retry. Retry count configuration is invalid with this action.

status-code httpv2 httpv2_range

Specify the code, or a range of status codes separated by either - (hyphen) or , (comma).

retransmit-interval retransmit_interval

Specify the retransmit interval in milliseconds.

Must be an integer.

retransmit retransmit

Specify the retransmit value.

Must be an integer in the range of 1-10.

retry retry_value

Specify the number of times the NF service must retry before proceeding with the action.

Must be an integer in the range of 1-10.

Usage Guidelines Use this command to configure HTTPv2 status codes.

profile nf-client-failure nf-type udm

Configures UDM Profile Failure Handling parameters.

Command Modes

Exec > Global Configuration (config)

Syntax Description

profile nf-client-failure nf-type udm

Usage Guidelines

Use this command to configure UDM Profile Failure Handling parameters. The CLI prompt changes to the UDM Configuration mode (config-udm).

profile nf-client-failure nf-type udm profile failure-handling

Configures the UDM Failure Handling Template parameters.

Command Modes Exec > Global Configuration (config) > UDM NF Client Failure Configuration (config-udm)

Syntax Description **profile failure-handling** *fh_template_name*

failure-handling *fh_template_name*

Specify name of the UDM failure handling template.

Must be a string.

Usage Guidelines Use this command to configure the UDM Failure Handling Template parameters.

profile nf-client-failure nf-type udm profile failure-handling service name type

Configures UDM Failure Handling parameters.

Command Modes Exec > Global Configuration (config) > UDM NF-Client Configuration (config-udm) > Failure Handling Profile Configuration (config-failure-handling-profile_name)

Syntax Description **service name type** *udm_service_name_type* [**responsetimeout** *response_timeout*]

responsetimeout *response_timeout*

Specify the response timeout interval in milliseconds.

Must be an integer.

Default Value: 2000.

type *udm_service_name_type*

Specify the UDM service name type.

Must be one of the following:

- **nudm-ee**
- **nudm-pp**
- **nudm-sdm**
- **nudm-ueau**
- **nudm-uecm**

Usage Guidelines Use this command to configure the UDM Failure Handling parameters.

profile nf-client-failure nf-type udm profile failure-handling service name type message type

Configures the UDM message type parameters.

Command Modes Exec > Global Configuration (config) > UDM NF Client Configuration (config-udm) > Failure Handling Configuration (config-failure-handling-*profile_name*) > Failure Handling Service Name Type Configuration (config-type-service_name_type)

Syntax Description **message type** *udm_message_type*

type *udm_message_type*

Specify the UDM message type.

Must be one of the following:

- UdmDeRegistrationReq
- UdmRegistrationReq
- UdmSdmGetUESMSSubscriptionData
- UdmSdmSubscribeToNotification
- UdmSdmUnsubscribeToNotification
- UdmSubscriptionReq
- UdmUecmRegisterSMF
- UdmUecmUnregisterSMF
- UdmUnSubscriptionReq

Usage Guidelines Use this command to configure the UDM message type parameters.

profile nf-client-failure nf-type udm profile failure-handling service name type message type status-code httpv2

Configures HTTPv2 status codes. This command is common to multiple NF clients, and is available in the following configuration modes.

Command Modes

Exec > Global Configuration (config) > UDM NF Client Configuration (config-udm) > Failure Handling Configuration (config-failure-handling-profile_name) > Failure Handling Service Name Type Configuration (config-type-service_name_type) > Failure Handling Message Type Configuration (config-type-message_type_name)

Syntax Description

status-code httpv2 { **range** *httpv2_range* } { **action** *action* | **retransmit** *retransmit* | **retransmit-interval** *retransmit_interval* | **retry** *retry_value* }

action *action*

Specify the action.

Must be one of the following:

- **continue**: Specify to continue the session without any retry. The retry count configuration is invalid with this action.
- **retry-and-continue**: Specify to retry as per the configured retry count and continue the session.
- **retry-and-ignore**: Specify to retry as per the configured retry count and ignore the session in case all retry fails.
- **retry-and-terminate**: Specify to retry as per the configured retry count and terminate the session in case all retry fails.
- **terminate**: Specify to terminate the session without any retry. Retry count configuration is invalid with this action.

status-code httpv2 *httpv2_range*

Specify the code, or a range of status codes separated by either - (hyphen) or , (comma).

retransmit-interval *retransmit_interval*

Specify the retransmit interval in milliseconds.

Must be an integer.

retransmit *retransmit*

Specify the retransmit value.

Must be an integer in the range of 1-10.

retry *retry_value*

Specify the number of times the NF service must retry before proceeding with the action.

Must be an integer in the range of 1-10.

Usage Guidelines Use this command to configure HTTPv2 status codes.

profile nf-client-failure nf-type smsf

Configures the SMSF Failure Handling Template parameters.

Command Modes	Exec > Global Configuration (config) > SMSF NF Client Failure Configuration (config-udm)
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Syntax Description	profile failure-handling <i>fh_template_name</i>
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failure-handling *fh_template_name*

Specify name of the SMSF failure handling template.

Must be a string.

Usage Guidelines	Use this command to configure the SMSF Failure Handling Template parameters.
-------------------------	--

profile nf-client-failure nf-type smsf profile failure-handling

Configures the SMSF Failure Handling Template parameters.

Command Modes Exec > Global Configuration (config) > SMSF NF Client Failure Configuration (config-udm)

Syntax Description **profile failure-handling** *fh_template_name*

failure-handling *fh_template_name*

Specify name of the SMSF failure handling template.

Must be a string.

Usage Guidelines Use this command to configure the SMSF Failure Handling Template parameters.

profile nf-client-failure nf-type smsf profile failure-handling service name type

Configures SMSF Failure Handling parameters.

Command Modes Exec > Global Configuration (config) > SMSF NF-Client Configuration (config-udm) > Failure Handling Profile Configuration (config-failure-handling-profile_name)

Syntax Description **service name type** *smsf_service_name_type* [**responsetimeout** *response_timeout*]

responsetimeout *response_timeout*

Specify the response timeout interval in milliseconds.

Must be an integer.

Default Value: 2000.

type *smsf_service_name_type*

Specify the SMSF service name type.

Must be the following:

- **nsmsf-sms**

Usage Guidelines Use this command to configure the SMSF Failure Handling parameters.

profile nf-client-failure nf-type smsf profile failure-handling service name type message type status-code

Configures the SMSF message type parameters.

Command Modes	Exec > Global Configuration (config) > SMSF NF Client Configuration (config-udm) > Failure Handling Configuration (config-failure-handling-profile_name) > Failure Handling Service Name Type Configuration (config-type-service_name_type)
Syntax Description	message type SmsfActivationReq { status-code [httpv2] action [retry-and-ignore] retryretry_count} SmsfDeactivationReq { status-code [httpv2] action [retry-and-ignore] retransmit retransmit_count retransmit-intervalretransmit_interval} SmsfSendSms { status-code [httpv2] action [retry-and-ignore] retransmit retransmit_count retransmit-intervalretransmit_interval} type smsf_message_type Specify the SMSF message type. Must be one of the following: • SmsfActivationReq • SmsfDeactivationReq • SmsfSendSms
Usage Guidelines	Use this command to configure the SMSF message type parameters.

profile nf-pair nf-type

Configures the NF client pair type parameter.

Command Modes

Exec > Global Configuration (config)

Syntax Description

profile nf-pair nf-type *nf_type* [[**limit** *max_discovery_profiles*] [**max-payload-size** *max_payload_size*] [**nrf-discovery-group** *group_name*]]

limit *max_discovery_profiles*

Specify the maximum number of discovery profiles that NRF can send.

Must be an integer in the range of 1-1000.

Default Value: 10.

max-payload-size *max_payload_size*

Specify the maximum payload size of the discovery response.

Must be an integer in the range of 124-2000.

Default Value: 124.

nf-type *nf_type*

Specify the NF client pair type.

Must be one of the following:

- **5G_EIR**
- **AMF**
- **AUSF**
- **GMLC**
- **LMF**
- **NRF**
- **NSSF**
- **PCF**
- **SMF**
- **SMSF**
- **UDM**

nrf-discovery-group *group_name*

Specify name of the NRF discovery group.

Must be a string.

Usage Guidelines

Configures NF client pair parameters. Use this command to configure the NF client pair type parameter.

profile nf-pair nf-type cache invalidation true

Configures the invalidation cache for "true" case.

Command Modes

Exec > Global Configuration (config) > NF Type Configuration (config-nf-type-*nf_type*)

Syntax Description

cache invalidation { false | true [timeout *timeout_duration*] }

timeout *timeout_duration*

Specify the invalidation cache timeout duration in milliseconds.

Must be an integer.

Default Value: 0.

true

True condition.

Usage Guidelines

Use this command to configure the true case parameters for invalidation cache.

profile nf-pair nf-type locality

Configures client locality parameter.

Command Modes	Exec > Global Configuration (config) > NF Type Configuration (config-nf-type-nf_type)
Syntax Description	locality { client <i>locality_name</i> geo-server <i>locality_name</i> preferred-server <i>locality_name</i> } client <i>locality_name</i> Specify the Client Locality information. Must be a string. geo-server <i>locality_name</i> Specify the Geo Service Locality information. Must be a string. preferred-server <i>locality_name</i> Specify the preferred server locality information. Must be a string.
Usage Guidelines	Use this command to configure the client locality parameter.

profile nf-pair nf-type nrf-auth-group nrf-discovery-group

Configures the AMF ID (**nrf-auth-group nrf-discovery-group** in the **nf-pair**) to specify **auth-groups** containing the NRF endpoint details for each NF type.

Command Modes

Exec > Global Configuration (**config**) > AMF Configuration (**config-amf amf_name**) > NF Profile Name Configuration (**config-nf-profile-nf nf_profile_name**) > NF Profile Type Configuration (**config-nf-type-profile profile_type_name**) > nrf-auth-group > nrf-discovery-group

Syntax Description

```
profile nf-pair nf-type nf_type_name
  nrf-auth-group nrf_auth_group_name
  nrf-discovery-group nrf_discovery_group_name
  locality client client_name
  locality preferred-server server_name
  locality geo-server geo_server_name
  cache invalidation { true | false } timeout timeout_number
```

profile nf-pair nf-type *nf_type_name*

Specify the **nf-type** under the **nf-pair** in the profile name to authenticate. Must be a string.

nrf-auth-group *nrf_auth_group_name*

Specify the **nrf-auth-group** name.

nrf-discovery-group *nrf_discovery_group_name*

Specify the **nrf-discovery-group** name.

locality client *client_name*

Specify the client name in the locality details.

locality preferred-server *server_name*

Specify the **preferred-server** or client name in the locality details.

locality geo-server *geo_server_name*

Specify the **geo-server** name in the locality details.

cache invalidation { true | false } timeout *timeout_number*

Enable the cache invalidation configuration. The default value is false.

Usage Guidelines

Use this command, when the **nrf-discovery-group** under the **nrf-auth-group**, as **auth-groups** containing the NRF endpoint details for each NF type is specified, when you want to enable **nf-pair**.

quit

Exits the management session.

Command Modes

Exec

Syntax Description

`quit`

Usage Guidelines

Use this command to exit the management session.

resource pod

Configures Pod resource parameter.

Command Modes

Exec > Global Configuration (config)

Syntax Description

resource *pod_type*

resource *pod_type*

Specify the pod type.

Usage Guidelines

Use this command to configure Pod resource parameter. The CLI prompt changes to the Pod Resource Configuration mode (config-resource-<pod_type>).

resource pod cpu

Configures CPU resource request parameter.

Command Modes Exec > Global Configuration (config) > Pod Resource Configuration (config-resource-pod_type)

Syntax Description **cpu request** *cpu_resource_request*

request *cpu_resource_request*

Specify the CPU resource request in millicores.

Must be an integer in the range of 100-1000000.

Usage Guidelines Use this command to configure CPU resource request parameter.

resource pod labels

Configures K8 Node Affinity label configuration.

Command Modes Exec > Global Configuration (config) > Pod Resource Configuration (config-resource-*pod_type*)

Syntax Description **labels** **key** *label_key* **value** *label_value*

key *label_key*

Specify the key for the label.
Must be a string.

value *label_value*

Specify the value for the label.
Must be a string.

Usage Guidelines Use this command to configure K8 Node affinity label configuration.

resource pod memory

Configures memory resource request parameter.

Command Modes Exec > Global Configuration (config) > Pod Resource Configuration (config-resource-pod_type)

Syntax Description **memory request** *memory_resource_request*

request *memory_resource_request*

Specify the memory resource request in megabytes.
Must be an integer in the range of 100-200000.

Usage Guidelines Use this command to configure memory resource request parameter.

resources

Displays resources information.

Command Modes

Exec

Syntax Description

show resources

Usage Guidelines

Use this command to view resources information.

resources info

Displays resource information.

Command Modes

Exec

Syntax Description

`show resources [ info ]`

Usage Guidelines

Use this command to view information about the configured resources.

rolling-upgrade all

Enables the supported features for a rolling upgrade.

Command Modes

Exec > Global Configuration (config) > amf-services (config-amf-service *service_name*)

Syntax Description

supported-features [**app-rx-retx-cache** | **app-tx-retx** | **rolling-upgrade-all** | **rolling-upgrade-enhancement-infra**]

Specify one of following options to enable the supported features for the rolling upgrade.

- **app-rx-retx-cache**: Enable retransmission cache for inbound messages at application.
- **app-tx-retx**: Enable retransmission for outbound messages at application.
- **rolling-upgrade-all**: Enable the **rolling-upgrade-enhancement-infra**, **app-rx-retx-cache** , and **app-tx-retx** rolling upgrade features.
- **rolling-upgrade-enhancement-infra**: Enable infra level features.



Note

By default, the rolling upgrade features are disabled.

Usage Guidelines

Use this command to enable the supported features for a rolling upgrade.

running-status

Displays system running status information.

Command Modes

Exec

Syntax Description

`show running-status`

Usage Guidelines

Use this command to view system running status information.

running-status info

Displays the system's current status information.

Command Modes

Exec

Syntax Description

show running-status [info]

Usage Guidelines

Use this command to view the system's current status information.

screen-length

Configures the number of rows of text that the terminal screen displays.

Command Modes

Exec

Syntax Description

screen-length *number_of_rows*

number_of_rows

Specify the number of rows.

Must be an integer.

Usage Guidelines

Use this command to configure the number of rows that the terminal screen displays.

screen-width

Configures the number of columns that the terminal screen displays.

Command Modes

Exec

Syntax Description

screen-width *number_of_columns*

number_of_columns

Specify the number of columns.

Must be an integer.

Usage Guidelines

Use this command to configure the number of columns that the terminal screen displays.

search

Search subscriber by SUPI.

Command Modes	Exec > Global Configuration (config)
Syntax Description	<code>search subscriber supi <i>supi_info</i> detailed { false true }</code>
Usage Guidelines	Use this command to search subscriber by SUPI.

send

Sends messages to the terminal of a specific user or all users.

Command Modes

Exec

Syntax Description

send *user message*

user

Specify the user from whom the message must be sent.

Must be a string.

Must be one of the following:

- admin
- confd-api-manager
- confd-message-manager

message

Specify the message that must be sent.

Must be a string.

Usage Guidelines

Use this command to send messages to the terminal of a specific user or to all users.

sessions

Displays pending session commits in the database.

Command Modes

Exec

Syntax Description

show sessions

Usage Guidelines

Use this command to view pending session commits in the database.

sessions affinity

Displays the affinity count per instance.

Command Modes

Exec

Syntax Description

show sessions affinity

Usage Guidelines

Use this command to view the affinity count per instance.

sessions commit-pending

Displays all pending session commits.

Command Modes

Exec

Syntax Description

`show sessions commit-pending`

Usage Guidelines

Use this command to view all pending session commits.

show

Displays the system information.

Command Modes Exec

Syntax Description **show** *system_component*

system_component

Specify the component to view the information.

Must be a string. Select from the possible completion options.

Usage Guidelines Use this command to view the system information.

show edr

Displays EDR Transaction Procedure Event fields.

Command Modes

Exec

Syntax Description

show edr { [**event** *transaction_procedure_event*] [**transaction-procedure** *transaction_procedure*] }

event *transaction_procedure_event*

Specify the transaction procedure event name/id/all.
Must be a string.

transaction-procedure *transaction_procedure*

Specify the transaction procedure's name, ID, or all.
Must be a string.

Usage Guidelines

Use this command to view EDR Transaction Procedure Event fields.

show geo-maintenance-mode

Indicates whether maintenance mode is enabled or disabled.

Command Modes Exec

Syntax Description `show geo-maintenance-mode`

Usage Guidelines Use this command to view whether maintenance mode is enabled or disabled.

show georeplication

Displays ETCD/Cache checksum.

Command Modes

Exec

Syntax Description

show georeplication checksum instance-id *instance_id*

checksum

Specify checksum.

instance-id *instance_id*

Specify the instance ID for which checksum will be displayed.

Must be a string.

Usage Guidelines

Use this command to view ETCD/Cache checksum.

show local-interface-status

Displays status of local interface.

Command Modes

Exec

Syntax Description

show local-interface-status interface *local_interface_name*

interface *local_interface_name*

Specify name of the local interface.

Must be a string.

Usage Guidelines

Use this command to view status of local interface.

show role

Displays current role for the specified instance.

Command Modes

Exec

Syntax Description

show role instance-id *instance_id*

instance-id *instance_id*

Specify the instance ID for which role must be displayed.

Usage Guidelines

Use this command to view current role for the specified instance.

show rpc

Displays RPC information.

Command Modes

Exec

Syntax Description

show rpc [**all** | **ipv4** | **ipv6**] *optional_filter*

rpc [**all** | **ipv4** | **ipv6**] *optional_filter*

optional_filter must be one of the following:

- connectedTime
- disconnectedTime
- monitorRPCHost
- processingInstanceInfo
- remoteHost
- setName
- status
- type
- version
- vrf

Usage Guidelines

Use this command to view RPC information.

show subscriber

Displays subscriber information.

Command Modes

Exec

Syntax Description

show subscriber { all | supi *supi_id* }

all

Specify all SUPIs or IMEIs.

count *session_count*

Specify the sessions count.

Must be one of the following:

- **count**

gr-instance *gr_instance*

Specify the network function service under which to search.

imei *imei_id*

Specify the International Mobile Equipment Identity.

Must be a string of 15-16 characters.

namespace *namespace*

NOTE: This keyword is deprecated, use nf-service instead. Specify the product namespace under which to search.

Default Value: cisco-mobile-infra:none.

nf-service *nf_service*

Specify the network function service under which to search.

Default Value: cisco-mobile-infra:none.

supi *supi_id*

Specify the subscriber's SUPI ID.

Must be a string.

Usage Guidelines

Use this command to view summary and detailed subscriber information for all subscribers or specific subscribers based on SUPI, IMEI, or all.

show subscriber ran-opt

Displays and clears subscriber data based on specified criteria.

Command Modes

Exec

Syntax Description

```
{ clear | show } subscriber gnodeb-id gnodeb_id mnc mobile_network_code mcc  
mobile_country_code
```

gnodeb-id gnodeb_id

Specify the gnodeb-id.

Must be an integer in the range of 0-4294967295.

mnc mobile_country_code

Specify the mobile country code.

Must be a string in a three digit pattern.

mnc mobile_network_code

Specify the mobile network code.

Must be a string in the two-digit (European standard) or three-digit (North American standard) pattern. For information on the two or three digits pattern, see the Input Pattern Types section.

Usage Guidelines

Use this command to view and to clear subscriber data based on specified criteria.

show-defaults

Configures whether to display default values when showing the configuration.

Command Modes

Exec

Syntax Description

show-defaults { false | true }

show-defaults { false | true }

Specify whether to display or hide the default values. To hide select false, to display select true.
Must be either "false" or "true".

Usage Guidelines

Use this command to view default values when viewing the configuration commands.

smiuser

Configures the Subscriber Microservices Infrastructure (SMI) user account parameters.

Command Modes

Exec

Syntax Description

```
smiuser add-group groupname group_name

smiuser add-user { username username | password password }

smiuser assign-user-group { groupname group_name | username username }

smiuser change-password-age { password-expire-days expire_days |
username username }

smiuser change-self-password { confirm-password confirm_password |
current-password current_password | new-password new_password |
password-expire-days password_expire_days }

smiuser delete-group groupname group_name

smiuser delete-user username username

smiuser show-user username username

smiuser unassign-user-group { username username | groupname group_name }

smiuser update-password-length length password_length
```

groupname *group_name*

Specify the group name in PAM.

Must be a string.

username *username*

Specify the username in PAM.

Must be a string.

Usage Guidelines

Use this command to configure the SMI user parameters.

system

Configures the NF's system operations.

Command Modes

Exec

Syntax Description

system { ops-center stop | ops-center-debug { start | stop } | synch { start | stop } | upgrade | uuid-override new-uuid *uuid_value* }

ops-center stop

Stops the operations center diagnostics.

ops-center debug { start | stop }

Starts or stops operations center debugging.

synch { start | stop }

Starts or stops the automatic synching of configuration,

upgrade

Initiates the upgrade of a product.

uuid-override new-uuid *uuid_value*

Change the Universally Unique Identifier (UUID) to a new value.

Must be a string.

Usage Guidelines

Use this command to display the NF's system operations.

tai-group

Configures Tracking Area Identity (TAI) group parameters.

Command Modes

Exec > Global Configuration (config)

Syntax Description

tai-group name *tai_group_name*

name *tai_group_name*

Specify name of the TAI group.

Must be a string.

Usage Guidelines

Use this command to configure TAI group parameters.

tai-group timezone

Configures timezone for Tracking Area Identity (TAI) group.

Command Modes	Exec > Global Configuration (config) > TAI Group Configuration (config-tai-group- <i>tai_group_name</i>)
Syntax Description	[timezone offset { + - } hours <i>value</i> [minutes { 0 15 30 45 } daylight { 0 1 2 }] [timezone offset { + - } hours <i>value</i> [minutes { 0 15 30 45 } daylight { 0 1 2 }] • { + - }—Specify the offset direction from the Universal Time (UTC). • hours <i>value</i>—Specify the offset from UTC in hours. Accepted value must be an integer 0—14. • minutes { 0 15 30 45 }—Specify the offset minutes that are added to the hours value. • daylight { 0 1 2 }—Specify the number of hours with which the time zone should be offset due to daylight savings time.
Usage Guidelines	Use this command to configure timezone and daylight saving values for TAI group.

tai-group network name

Configures short and full network name under Tracking Area Identity (TAI) group.

Command Modes Exec > Global Configuration (config) > TAI Group Configuration (config-tai-group-*tai_group_name*)

Syntax Description **network-name { short *short_network_name* | full *full_network_name* }**

network-name { short *short_network_name* | full *full_network_name* }

- **short *short_network_name***—Specify the short name for the network.
- **full *full_network_name***—Specify the full name for the network.

Usage Guidelines Use this command to configure short and full name of the network in a TAI group.

tai-group tais

Configures Tracking Area Identity (TAI).

Command Modes	Exec > Global Configuration (config)
Syntax Description	tai-group name <i>tai_group_name</i> tais name <i>tai_name</i> [ims-voice-over-ps-supported { false true }] ims-voice-over-ps-supported { false true } Specify whether IMS Voice Over PS is supported or not supported. Must be one of the following: • false • true Default Value: false. tais name <i>tai_name</i> Specify name of the TAI. Must be a string.
Usage Guidelines	Use this command to configure TAIs. A TAI is composed of MCC, MNC, and possible TACs.

tai-group tais tailist

Configures TAI list.

Command Modes

Exec > Global Configuration (config) > TAI Group Configuration (config-tai-group-*tai_group_name*) > TAI S List Configuration (config-tais-*tai_name*)

Syntax Description

mcc *mobile_country_code* **mnc** *mobile_network_code*

mcc *mobile_country_code*

Specify the mobile country code. For example, 123.

Must be a string in a two digit pattern.

mnc *mobile_network_code*

Specify the two- or three-digit mobile network code. For example, 23, 456.

Must be a string in the two-or-three-digit pattern. For information on the two-or-three-digit pattern, see the Input Pattern Types section.

Usage Guidelines

Use this command to configure the TAI list.

You can configure a maximum of 16 elements with this command.

tai-group tais tailist tac

Configures TAI group TAC values.

Command Modes Exec > Global Configuration (config) > TAI Group Configuration (config-tai-group-*tai_group_name*) > TAIS List Configuration (config-tais-*tai_name*)

Syntax Description **tac list** *list_of_tac_values*

list *list_of_tac_values*

Specify the list of TAC values.

Must be an integer in the range of 0-65535.

You can configure a maximum of 16 elements with this keyword.

Usage Guidelines Use this command to configure TAI group TAC values.

tai-group tais tailist tac range

Configures the TAC range.

Command Modes

Exec > Global Configuration (config) > TAI Group Configuration (config-tai-group-*tai_group_name*) > TAIS List Configuration (config-tais-*tai_name*)

Syntax Description

range start *tac_range_start* **end** *tac_range_end*

end *tac_range_end*

Specify the end value of the TAC range. Must be greater than the start value.

Must be an integer in the range of 0-65535.

start *tac_range_start*

Specify the start value of the TAC range. Must be lesser than the end value.

Must be an integer in the range of 0-65535.

Usage Guidelines

Use this command to configure the TAC range.

You can configure a maximum of 16 elements with this command.

tai-group tais tailist timezone

Configures timezone for Tracking Area Identity (TAI) list.

Command Modes Exec > Global Configuration (config) > TAI Group Configuration (config-tai-group-tai_group_name) > TAI S List Configuration (config-tais-tai_name)

Syntax Description [timezone offset { + | - } hours value [minutes { 0 | 15 | 30 | 45 } | daylight { 0 | 1 | 2 }]

[timezone offset { + | - } hours value [minutes { 0 | 15 | 30 | 45 } | daylight { 0 | 1 | 2 }]

- { + | - }—Specify the offset direction from the Universal Time (UTC).
- hours value—Specify the offset from UTC in hours. Accepted value must be an integer 0—14.
- minutes { 0 | 15 | 30 | 45 }—Specify the offset minutes that are added to the hours value.
- daylight { 0 | 1 | 2 }—Specify the number of hours with which the time zone should be offset due to daylight savings time.

Usage Guidelines Use this command to configure timezone and daylight saving values for TAI list.

tai-group tais tailist network name

Configures short and full network name under Tracking Area Identity (TAI) list.

Command Modes Exec > Global Configuration (config) > TAI Group Configuration (config-tai-group-*tai_group_name*) > TAI S List Configuration (config-tais-*tai_name*)

Syntax Description **network-name { short *short_network_name* | full *full_network_name* }**

network-name { short *short_network_name* | full *full_network_name* }

- **short** *short_network_name*—Specify the short name for the network.
- **full** *full_network_name*—Specify the full name for the network.

Usage Guidelines Use this command to configure short and full name of the network in a TAI list.

terminal

Configures the terminal parameters.

Command Modes

Exec

Syntax Description

terminal *terminal_type*

terminal_type

Specify the terminal type.

Must be one of the following:

- ansi
- generic
- linux
- vt100
- xterm

Usage Guidelines

Use this command to configure the terminal parameters.

timestamp

Configures the timestamp parameters.

Command Modes Exec

Syntax Description `timestamp { enable | disable }`

timestamp { enable | disable }

Specify the configuration to enable or disable the timestamp display.

Usage Guidelines Use this command to configure the timestamp capability.

tracing

Configures debug settings for AMF NGAP endpoint.

Command Modes	Exec > Global Configuration (config)
Syntax Description	tracing enable-trace-percent <i>tracing_percentage</i> append-messages { false true } append-messages { false true } Specify to enable or disable appending messages. Must be one of the following: • false • true Default Value: true. enable-trace-percent <i>tracing_percentage</i> Specify the tracing percentage. Must be an integer in the range of 0-100. Default Value: 100.
Usage Guidelines	Use this command to configure debug settings for the AMF NGAP endpoint.

tracing endpoint

Configures tracing endpoint.

Command Modes

Exec > Global Configuration (config)

Syntax Description

tracing endpoint host *host_name* **port** *port_number*

host *host_name*

Specify the host name.

Must be a string.

Default Value: jaeger-collector.

port *port_number*

Specify the port number.

Must be an integer.

Default Value: 9411.

Usage Guidelines

Use this command to configure tracing endpoint.

who

Displays information on currently logged on users.

Command Modes

Exec

Syntax Description

who

Usage Guidelines

Use this command to view information on currently logged on users. The command output displays the Session, User, Context, From, Protocol, Date, and Mode information.

 who



Input Pattern Types

- [arg-type](#), on page 466
- [crypt-hash](#), on page 467
- [date-and-time](#), on page 468
- [domain-name](#), on page 469
- [dotted-quad](#), on page 470
- [hex-list](#), on page 471
- [hex-string](#), on page 472
- [ipv4-address](#), on page 473
- [ipv4-address-and-prefix-length](#), on page 474
- [ipv4-address-no-zone](#), on page 475
- [ipv4-prefix](#), on page 476
- [ipv6-address](#), on page 477
- [ipv6-address-and-prefix-length](#), on page 478
- [ipv6-address-no-zone](#), on page 479
- [ipv6-prefix](#), on page 480
- [mac-address](#), on page 481
- [object-identifier](#), on page 482
- [object-identifier-128](#), on page 483
- [octet-list](#), on page 484
- [phys-address](#), on page 485
- [sha-256-digest-string](#), on page 486
- [sha-512-digest-string](#), on page 487
- [size](#), on page 488
- [uuid](#), on page 489
- [yang-identifier](#), on page 490

arg-type

```
Pattern:  
'[^\*]*.*|..+'; // must not be single '*'
```

```
Pattern:  
'\*'
```

This statement can be used to hide a node from some, or all, northbound interfaces. All nodes with the same value are considered a hide group and are treated the same with regards to being visible or not in a northbound interface.

A node with an hidden property is not shown in the northbound user interfaces (CLI and Web UI) unless an 'unhide' operation is performed in the user interface.

The hidden value 'full' indicates that the node must be hidden from all northbound interfaces, including programmatical interfaces such as NETCONF. The value '*' is not valid. A hide group can be unhidden only if this is explicitly allowed in the confd.conf(5) daemon configuration.

Multiple hide groups can be specified by giving this statement multiple times. The node is shown if any of the specified hide groups is given in the 'unhide' operation. If a mandatory node is hidden, a hook callback function (or similar) might be needed in order to set the element

crypt-hash

Pattern:

```
'$0$.*'
'|$1$[a-zA-Z0-9./]{1,8}$[a-zA-Z0-9./]{22}'
'|$5$(rounds=\d+)$?[a-zA-Z0-9./]{1,16}$[a-zA-Z0-9./]{43}'
'|$6$(rounds=\d+)$?[a-zA-Z0-9./]{1,16}$[a-zA-Z0-9./]{86}'
```

The **crypt-hash** type is used to store passwords using a hash function. The algorithms for applying the hash function and encoding the result are implemented in various UNIX systems as the function crypt(3).

A value of this type matches one of the forms:

- `$0$<clear text password>`
- `$<id>$<salt>$<password hash>`
- `$<id>$<parameter>$<salt>$<password hash>`

The '\$0\$' prefix signals that the value is clear text. When such a value is received by the server, a hash value is calculated, and the string '\$<id>\$<salt>\$' or '\$<id>\$<parameter>\$<salt>\$' is prepended to the result. This value is stored in the configuration data store.

If a value starting with '\$<id>\$', where <id> is not '0', is received, the server knows that the value already represents a hashed value, and stores it as is in the data store.

When a server needs to verify a password given by a user, it finds the stored password hash string for that user, extracts the salt, and calculates the hash with the salt and given password as input. If the calculated hash value is the same as the stored value, the password given by the client is accepted.

This type defines the following hash functions:

Id	Hash Function	Feature
1	MD5	crypt-hash-md5
5	SHA-256	crypt-hash-sha-256
6	SHA-512	crypt-hash-sha-512

The server indicates support for the different hash functions by advertising the corresponding feature.

Reference:

- IEEE Std 1003.1-2008 - crypt() function
- RFC 1321: The MD5 Message-Digest Algorithm
- FIPS.180-3.2008: Secure Hash Standard

date-and-time

Pattern:

```
'\d{4}-\d{2}-\d{2}T\d{2}:\d{2}:\d{2}(\.\d+)?'
'(Z|[\+|-]\d{2}:\d{2})'
```

The date-and-time type is a profile of the ISO 8601 standard for representation of dates and times using the Gregorian calendar. The profile is defined by the date-time production in Section 5.6 of RFC 3339. The date-and-time type is compatible with the dateTime XML schema type with the following notable exceptions:

1. The date-and-time type does not allow negative years.
2. The date-and-time time-offset -00:00 indicates an unknown time zone (see RFC 3339) while -00:00 and +00:00 and Z all represent the same time zone in dateTime.
3. The canonical format (see below) of data-and-time values differs from the canonical format used by the dateTime XML schema type, which requires all times to be in UTC using the time-offset 'Z'.

This type is not equivalent to the DateAndTime textual convention of the SMIV2 since RFC 3339 uses a different separator between full-date and full-time and provides higher resolution of time-secfrac. The canonical format for date-and-time values with a known time zone uses a numeric time zone offset that is calculated using the device's configured known offset to UTC time.

A change of the device's offset to UTC time will cause date-and-time values to change accordingly. Such changes might happen periodically in case a server follows automatically daylight saving time (DST) time zone offset changes. The canonical format for date-and-time values with an unknown time zone (usually referring to the notion of local time) uses the time-offset -00:00.

Reference:

- RFC 3339: Date and Time on the Internet: Timestamps
- RFC 2579: Textual Conventions for SMIV2
- XSD-TYPES: XML Schema Part 2: Datatypes Second Edition

domain-name

Pattern:

```
'((( [a-zA-Z0-9_] ([a-zA-Z0-9\_-]) {0,61}) ? [a-zA-Z0-9] \. ) * '
' ([a-zA-Z0-9_] ([a-zA-Z0-9\_-]) {0,61}) ? [a-zA-Z0-9] \. ? ) '
'| \. '
```

The domain-name type represents a DNS domain name. The name must fully qualified whenever possible. Internet domain names are only loosely specified. Section 3.5 of RFC 1034 recommends a syntax (modified in Section 2.1 of RFC 1123). The Pattern above is intended to allow for current practice in domain name use, and some possible future expansion. It is designed to hold various types of domain names, including names used for A or AAAA records (host names) and other records, such as SRV records.

The Internet host names have a stricter syntax (described in RFC 952) than the DNS recommendations in RFCs 1034 and 1123, and that systems that want to store host names in schema nodes using the domain-name type are recommended to adhere to this stricter standard to ensure interoperability.

The encoding of DNS names in the DNS protocol is limited to 255 characters. Since the encoding consists of labels prefixed by a length bytes and there is a trailing NULL byte, only 253 characters can appear in the textual dotted notation.

The description clause of schema nodes using the domain-name type must describe when and how these names are resolved to IP addresses. The resolution of a domain-name value may require to query multiple DNS records. For example, A for IPv4 and AAAA for IPv6. The order of the resolution process and which DNS record takes precedence can either be defined explicitly or may depend on the configuration of the resolver.

Domain-name values use the US-ASCII encoding. Their canonical format uses lowercase US-ASCII characters. Internationalized domain names MUST be A-labels as per RFC 5890.

Reference:

- RFC 952: DoD Internet Host Table Specification
- RFC 1034: Domain Names - Concepts and Facilities
- RFC 1123: Requirements for Internet Hosts -- Application and Support
- RFC 2782: A DNS RR for specifying the location of services (DNS SRV)
- RFC 5890: Internationalized Domain Names in Applications (IDNA): Definitions and Document Framework

dotted-quad

Pattern:

```
' ( ([0-9] | [1-9] [0-9] | 1 [0-9] [0-9] | 2 [0-4] [0-9] | 25 [0-5]) \. ) {3} '  
' ([0-9] | [1-9] [0-9] | 1 [0-9] [0-9] | 2 [0-4] [0-9] | 25 [0-5]) '
```

An unsigned 32-bit number expressed in the dotted-quad notation, that is, four octets written as decimal numbers and separated with the '.' (full stop) character.

hex-list

Pattern:

```
'(([0-9a-fA-F]){2}(:([0-9a-fA-F]){2})*)?'
```

DEPRECATED: Use yang:hex-string instead. There are no plans to remove tailf:hex-list. A list of colon-separated hexa-decimal octets, for example '4F:4C:41:71'.

The statement tailf:value-length can be used to restrict the number of octets. Using the 'length' restriction limits the number of characters in the lexical representation

hex-string

Pattern:

```
'([0-9a-fA-F]{2}(:[0-9a-fA-F]{2})*)?'
```

A hexadecimal string with octets represented as hex digits separated by colons. The canonical representation uses lowercase characters.

ipv4-address

Pattern:

```
' ( ([0-9] | [1-9] [0-9] | 1 [0-9] [0-9] | 2 [0-4] [0-9] | 25 [0-5]) \. ) {3} '  
' ([0-9] | [1-9] [0-9] | 1 [0-9] [0-9] | 2 [0-4] [0-9] | 25 [0-5]) '  
' (% [\p{N} \p{L} ]+ ) ? '
```

The ipv4-address type represents an IPv4 address in dotted-quad notation. The IPv4 address may include a zone index, separated by a % sign. The zone index is used to disambiguate identical address values. For link-local addresses, the zone index will typically be the interface index number or the name of an interface. If the zone index is not present, the default zone of the device will be used. The canonical format for the zone index is the numerical format.

ipv4-address-and-prefix-length

Pattern:

```
'(( [0-9] | [1-9] [0-9] | 1 [0-9] [0-9] | 2 [0-4] [0-9] | 25 [0-5] ) \. ) {3} '  
' ( [0-9] | [1-9] [0-9] | 1 [0-9] [0-9] | 2 [0-4] [0-9] | 25 [0-5] ) '  
' / ( ( [0-9] ) | ( [1-2] [0-9] ) | ( 3 [0-2] ) ) '
```

The ipv4-address-and-prefix-length type represents a combination of an IPv4 address and a prefix length. The prefix length is given by the number following the slash character and must be less than or equal to 32.

ipv4-address-no-zone

Pattern:

```
'[0-9\.]*'
```

An IPv4 address is without a zone index and derived from ipv4-address that is used in situations where the zone is known from the context and hence no zone index is needed.

ipv4-prefix

Pattern:

```
' ( ([0-9] | [1-9] [0-9] | 1 [0-9] [0-9] | 2 [0-4] [0-9] | 25 [0-5]) \. ) {3} '  
' ( [0-9] | [1-9] [0-9] | 1 [0-9] [0-9] | 2 [0-4] [0-9] | 25 [0-5]) '  
' / ( ([0-9]) | ([1-2] [0-9]) | (3 [0-2])) '
```

The ipv4-prefix type represents an IPv4 address prefix. The prefix length is given by the number following the slash character and must be less than or equal to 32.

A prefix length value of 'n' corresponds to an IP address mask that has n contiguous 1-bits from the most significant bit (MSB) and all other bits set to 0.

The canonical format of an IPv4 prefix has all bits of the IPv4 address set to zero that are not part of the IPv4 prefix.

ipv6-address

Pattern:

```
' ( (: | [0-9a-fA-F] {0,4}) : ) ( [0-9a-fA-F] {0,4} : ) {0,5} '
' ( ( ( [0-9a-fA-F] {0,4} : ) ? ( : | [0-9a-fA-F] {0,4} ) ) | '
' ( ( (25 [0-5] | 2 [0-4] [0-9] | [01] ? [0-9] ? [0-9] ) \. ) {3} 'Pattern:
' (25 [0-5] | 2 [0-4] [0-9] | [01] ? [0-9] ? [0-9] ) ) ) '
' ( % [p{N} \p{L}] + ) ? '
```

Pattern:

```
' ( ( [^:] + : ) {6} ( ( [^:] + : [^:] + ) | ( . * \. . * ) ) ) | '
' ( ( ( [^:] + : ) * [^:] + ) ? : : ( ( [^:] + : ) * [^:] + ) ? ) '
' ( % . + ) ? '
```

The ipv6-address type represents an IPv6 address in full, mixed, shortened, and shortened-mixed notation. The IPv6 address may include a zone index, separated by a % sign.

The zone index is used to disambiguate identical address values. For link-local addresses, the zone index will typically be the interface index number or the name of an interface. If the zone index is not present, the default zone of the device will be used.

The canonical format of IPv6 addresses uses the textual representation defined in Section 4 of RFC 5952. The canonical format for the zone index is the numerical format as described in Section 11.2 of RFC 4007.

Reference:

- RFC 4291: IP Version 6 Addressing Architecture
- RFC 4007: IPv6 Scoped Address Architecture
- RFC 5952: A Recommendation for IPv6 Address Text Representation

ipv6-address-and-prefix-length

Pattern:

```
' ( ( : | [0-9a-fA-F] {0,4} ) : ) ( [0-9a-fA-F] {0,4} : ) {0,5} '
' ( ( ( [0-9a-fA-F] {0,4} : ) ? ( : | [0-9a-fA-F] {0,4} ) ) | '
' ( ( (25[0-5] | 2[0-4] [0-9] | [01]?[0-9]?[0-9]) \. ) {3} '
' (25[0-5] | 2[0-4] [0-9] | [01]?[0-9]?[0-9]) ) ) '
' ( / ( ( [0-9] ) | ( [0-9] {2} ) | ( 1 [0-1] [0-9] ) | ( 12 [0-8] ) ) ) ) '

```

Pattern:

```
' ( ( [^:]+ : ) {6} ( ( [^:]+ : [^:]+ ) | ( . * \. . * ) ) ) | '
' ( ( ( [^:]+ : ) * [^:]+ ) ? : : ( ( [^:]+ : ) * [^:]+ ) ? ) '
' ( / . + ) '

```

The ipv6-address-and-prefix-length type represents a combination of an IPv6 address and a prefix length. The prefix length is given by the number following the slash character and must be less than or equal to 128.

ipv6-address-no-zone

Pattern:

'[0-9a-fA-F: \.]*'

An IPv6 address without a zone index. This type, derived from ipv6-address, may be used in situations where the zone is known from the context and hence no zone index is needed.

Reference:

- RFC 4291: IP Version 6 Addressing Architecture
- RFC 4007: IPv6 Scoped Address Architecture
- RFC 5952: A Recommendation for IPv6 Address Text Representation

ipv6-prefix

Pattern:

```
'((:[0-9a-fA-F]{0,4}):([0-9a-fA-F]{0,4}):{0,5}'
'((( [0-9a-fA-F]{0,4}):)?(:[0-9a-fA-F]{0,4}))|'
'(((25[0-5]|2[0-4][0-9]|[01]?[0-9]?[0-9])\.){3}'Pattern:
'(25[0-5]|2[0-4][0-9]|[01]?[0-9]?[0-9]))|'
'(/(( [0-9])|([0-9]{2})|(1[0-1][0-9])|(12[0-8])))' ;
```

Pattern:

```
'((^[:]+){6}((^[:]+:[^:]+)|(.*\.\.*))|'
'(((^[:]+)*[^:]+)?::((^[:]+)*[^:]+)?|'
'(/.+))'
```

The ipv6-prefix type represents an IPv6 address prefix. The prefix length is given by the number following the slash character and must be less than or equal to 128.

A prefix length value of n corresponds to an IP address mask that has n contiguous 1-bits from the most significant bit (MSB) and all other bits set to 0.

The IPv6 address should have all bits that do not belong to the prefix set to zero. The canonical format of an IPv6 prefix has all bits of the IPv6 address set to zero that are not part of the IPv6 prefix. Furthermore, the IPv6 address is represented as defined in Section 4 of RFC 5952

Reference:

- RFC 5952: A Recommendation for IPv6 Address Text Representation

mac-address

Pattern:

```
' [0-9a-fA-F] {2} ( : [0-9a-fA-F] {2} ) {5} '
```

The mac-address type represents an IEEE 802 MAC address. The canonical representation uses lowercase characters. In the value set and its semantics, this type is equivalent to the MacAddress textual convention of the SMIV2.

Reference:

- IEEE 802: IEEE Standard for Local and Metropolitan Area Networks: Overview and Architecture
- RFC 2579: Textual Conventions for SMIV2

object-identifier

Pattern:

```
'((([0-1](\.[1-3]?[0-9]))|(2\.(0|([1-9]\d*))))'
'(\.(0|([1-9]\d*)))'
```

The object-identifier type represents administratively assigned names in a registration-hierarchical-name tree. The values of this type are denoted as a sequence of numerical non-negative sub-identifier values. Each sub-identifier value MUST NOT exceed $2^{32}-1$ (4294967295). The Sub-identifiers are separated by single dots and without any intermediate whitespace.

The ASN.1 standard restricts the value space of the first sub-identifier to 0, 1, or 2. Furthermore, the value space of the second sub-identifier is restricted to the range 0 to 39 if the first sub-identifier is 0 or 1. Finally, the ASN.1 standard requires that an object identifier has always at least two sub-identifiers. The pattern captures these restrictions.

Although the number of sub-identifiers is not limited, module designers should realize that there may be implementations that stick with the SMIV2 limit of 128 sub-identifiers.

This type is a superset of the SMIV2 OBJECT IDENTIFIER type since it is not restricted to 128 sub-identifiers. Hence, this type SHOULD NOT be used to represent the SMIV2 OBJECT IDENTIFIER type; the object-identifier-128 type SHOULD be used instead.

Reference:

- ISO9834-1: Information technology - Open Systems
- Interconnection - Procedures for the operation of OSI
- Registration Authorities: General procedures and top arcs of the ASN.1 Object Identifier tree

object-identifier-128

Pattern:

'\d*(\.\d*){1,127}'

This type represents object-identifiers restricted to 128 sub-identifiers. In the value set and its semantics, this type is equivalent to the OBJECT IDENTIFIER type of the SMIV2.

Reference:

- RFC 2578: Structure of Management Information Version 2 (SMIV2)

octet-list

Pattern:

```
'(\d*(.\d*)*)?'
```

A list of dot-separated octets, for example '192.168.255.1.0'. The statement `tailf:value-length` can be used to restrict the number of octets. Using the 'length' restriction limits the number of characters in the lexical representation.

phys-address

Pattern:

' ([0-9a-fA-F] {2} (: [0-9a-fA-F] {2}) *) ? '

Represents media- or physical-level addresses represented as a sequence octets, each octet represented by two hexadecimal numbers. Octets are separated by colons. The canonical representation uses lowercase characters. In the value set and its semantics, this type is equivalent to the PhysAddress textual convention of the SMIV2.

Reference:

- RFC 2579: Textual Conventions for SMIV2

sha-256-digest-string

Pattern:

```
'$0$.*'
'|'$5$(rounds=\d+)$?[\a-zA-Z0-9./]{1,16}$[\a-zA-Z0-9./]{43}'
```

The sha-256-digest-string type automatically computes a SHA-256 digest for a value adhering to this type. A value of this type matches one of the forms:

- '\$0\$<clear text password>
- '\$5\$<salt>\$<password hash>
- '\$5\$rounds=<number>\$<salt>\$<password hash>

The '\$0\$' prefix signals that this is plain text. When a plain text value is received by the server, a SHA-256 digest is calculated, and the string '\$5\$<salt>\$' is prepended to the

result, where <salt> is a random 16 character salt used to generate the digest. This value is stored in the configuration data store. The algorithm can be tuned through the /confdConfig/cryptHash/rounds parameter, which if set to a number other than the default will cause '\$5\$rounds=<number>\$<salt>\$' to be prepended instead of only '\$5\$<salt>\$'.

If a value starting with '\$5\$' is received, the server knows that the value already represents a SHA-256 digest, and stores it as is in the data store.

If a default value is specified, it must have a '\$5\$' prefix.

The digest algorithm used is the same as the SHA-256 crypt function used for encrypting passwords for various UNIX systems.

Reference:

- IEEE Std 1003.1-2008 - crypt() function FIPS.180-3.2008: Secure Hash Standard

sha-512-digest-string

Pattern:

```
'$0$.*'
'|$6$(rounds=\d+)?$[a-zA-Z0-9./]{1,16}$[a-zA-Z0-9./]{86}'
```

The sha-512-digest-string type automatically computes a SHA-512 digest for a value adhering to this type. A value of this type matches one of the forms

- `$0$<clear text password>`
- `$6$<salt>$<password hash>`
- `$6$rounds=<number>$<salt>$<password hash>`

The '\$0\$' prefix signals that this is plain text. When a plain text value is received by the server, a SHA-512 digest is calculated, and the string '\$6\$<salt>\$' is prepended to the

result, where <salt> is a random 16 character salt used to generate the digest. This value is stored in the configuration data store. The algorithm can be tuned through the

/confdConfig/cryptHash/rounds parameter, which if set to a number other than the default will cause '\$6\$rounds=<number>\$<salt>\$' to be prepended instead of only '\$6\$<salt>\$'.

If a value starting with '\$6\$' is received, the server knows that the value already represents a SHA-512 digest, and stores it as is in the data store.

If a default value is specified, it must have a '\$6\$' prefix. The digest algorithm used is the same as the SHA-512 crypt function used for encrypting passwords for various UNIX systems.

Reference:

- IEEE Std 1003.1-2008 - crypt() function FIPS.180-3.2008: Secure Hash Standard

size

Pattern:

`'S(\d+G)?(\d+M)?(\d+K)?(\d+B)?'`

A value that represents a number of bytes. An example could be S1G8M7K956B; meaning 1GB + 8MB + 7KB + 956B = 1082138556 bytes.

The value must start with an S. Any byte magnifier can be left out, for example, S1K1B equals 1025 bytes. The order is significant though, that is S1B56G is not a valid byte size.

In ConfD, a 'size' value is represented as an uint64.

uuid

Pattern:

```
'[0-9a-fA-F]{8}-[0-9a-fA-F]{4}-[0-9a-fA-F]{4}-  
[0-9a-fA-F]{4}-[0-9a-fA-F]{12}'
```

A Universally Unique Identifier in the string representation defined in RFC 4122. The canonical representation uses lowercase characters. The following is an example of a UUID in string representation: f81d4fae-7dec-11d0-a765-00a0c91e6bf6.

Reference:

- RFC 4122: A Universally Unique Identifier (UUID) URN Namespace

yang-identifier

Pattern:

```
'[a-zA-Z_][a-zA-Z0-9\-\_\.]*'
```

Pattern:

```
'\.\.\.[^xX]*\.[^mM]*\.\.[^lL]*'
```

A YANG identifier string as defined by the 'identifier' rule in Section 12 of RFC 6020. An identifier must start with an alphabetic character or an underscore followed by an arbitrary sequence of alphabetic or numeric characters, underscores, hyphens, or dots. A YANG identifier **MUST NOT** start with any possible combination of the lowercase or uppercase character sequence 'xml'.

Reference:

- RFC 6020: YANG - A Data Modeling Language for the Network Configuration Protocol (NETCONF)