

# Sample SMF Configuration


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## Sample Configuration

The following is only a sample configuration file provided solely for your reference. You must create and modify your own configuration file according to the specific needs of your deployment.

```
profile compliance comp1
 service nsmf-pdusession
  version uri v1
  version full 1.0.2
  version spec 15.4.0
 exit
 service namf-comm
  version uri v1
  version full 1.0.2
  version spec 15.4.0
 exit
 service n1
  version uri v1
  version full 1.0.0
  version spec 15.4.0
 exit
 service n2
  version uri v1
  version full 1.0.0
  version spec 15.4.0
 exit
 service nudm-sdm
  version uri v2
  version full 2.0.1
  version spec 15.4.0
 exit
 service nudm-uecm
  version uri v1
  version full 1.0.2
  version spec 15.4.0
 exit
 service nnrf-disc
  version uri v1
  version full 1.0.2
  version spec 15.4.0
 exit
 service nnrf-nfm
```

```
  version uri v1
  version full 1.0.2
  version spec 15.4.0
 exit
 service npcf-smpolicycontrol
  version uri v1
  version full 1.0.2
  version spec 15.4.0
 exit
 service nchf-convergedcharging
  version uri v2
  version full 2.0.1
  version spec 15.3.0
 exit
exit
profile network-element amf amf1
 nf-client-profile        AP1
 failure-handling-profile FH3
 query-params [ dnn target-nf-instance-id ]
exit
profile network-element udm udm1
 nf-client-profile        UP1
 failure-handling-profile FH1
 query-params [ target-plmn target-nf-instance-id ]
 query-target-plmn        primary
exit
profile network-element pcf pcf1
 nf-client-profile        PP1
 failure-handling-profile FH1
 query-params [ dnn target-plmn target-nf-instance-id requester-snssais ]
 rulebase-prefix          cbn#
 predefined-rule-prefix   crn#
 use-amf-provided-pcf     true
exit
profile network-element chf chf1
 nf-client-profile                CP1
 failure-handling-profile         FH2
 query-params [ dnn target-plmn chf-supported-plmn ]
 query-target-plmn                primary
 nf-client-profile-offline        CP2
 failure-handling-profile-offline FH2
exit
profile network-element chf chgser1
exit
profile network-element sepp sepp1
 nf-client-profile hsepp
exit
profile network-element upf upf1
 n4-peer-address ipv4 209.165.200.231
 n4-peer-port      8805
 upf-group-profile upfGroup1
 dnn-list          [ cisco intershat starent ]
 capacity          65535
 priority          1
exit
profile network-element upf upf2
 n4-peer-address ipv4 209.165.200.232
 n4-peer-port 8805
 dnn-list     [ cisco intershat starent ]
 capacity     65535
 priority     2
exit
profile network-element upf upf3
 node-id      toolsUPF
```

```
 n4-peer-address ipv4 209.165.200.233
 n4-peer-port 8805
 dnn-list     [ cisco intershat starent ]
 capacity     32768
 priority     10
exit
profile upf-group upfGroup1
 heartbeat
  interval               63
  retransmission-timeout 3
  max-retransmissions    5
 exit
 supported-features [ secondary-pdr ]
exit
profile wps wps1
 arp              1-15
 dscp n3 0x14
 dscp sxa 0x22
 dscp s5e 0x24
 dscp s11 0x26
 message-priority [ pfcp gtpc ]
exit
profile wps wps_F5972
 arp              1-4,14
 dscp n3 0x0F
 message-priority [ pfcp gtpc ]
exit
profile pcscf pcscf1
 v4-list
  precedence 3
   primary 209.165.201.1
   secondary 209.165.201.2
  exit
 exit
 v6-list
  precedence 3
   primary 33:33::1
   secondary 33:33::2
  exit
 exit
 v4v6-list
  precedence 3
   primary ipv4 209.165.200.225
   primary ipv6 fd01:976a:c305:9::5
   secondary ipv4 209.165.200.26
   secondary ipv6 46:46:33::2
  exit
 exit
exit
profile icmpv6 icmpprf1
 options virtual-mac b6:6d:57:45:45:45
exit
profile charging chgprf1
 method                  [ offline ]
 limit volume 10000000
 limit duration 7200
 accounting limit volume downlink 100000 total 100000 uplink 100000
 accounting triggers [ qos-change rat-change serv-node-change ambr-change ue-time-change
plmn-change user-loc-change ]
 tight-interworking-mode true
 quota request always
 quota suppress triggers [ qht ]
 reporting-level online rating-group
 reporting-level offline service-id
```

```
exit
profile charging chgprf2
 method                  [ offline ]
 accounting limit volume downlink 100000 total 100000 uplink 100000
 accounting triggers [ qos-change rat-change serv-node-change ambr-change ue-time-change
plmn-change user-loc-change ]
 tight-interworking-mode true
 quota request always
 quota suppress triggers [ qht ]
 reporting-level online rating-group
 reporting-level offline service-id
exit
profile charging chgprf3_roaming
 method [ offline ]
exit
profile charging-characteristics 1
 charging-profile     chgprf2
 charging-qbc-profile qbc_general
exit
profile charging-qbc qbc_general
 limit volume 20500
 limit duration 70
 max-charging-condition 1
 max-deferred-urr       2
 triggers               [ ambr-change qos-change user-loc-change ]
exit
profile charging-qbc qbc_hsmf1
 limit volume 40500
 limit duration 140
 triggers [ ambr-change qos-change serv-node-change user-loc-change ]
exit
profile failure-handling FH1
 interface pfcp
  message N4SessionEstablishmentReq
   cause-code pfcp-entity-in-congestion action retry-terminate max-retry 2
   cause-code system-failure action terminate
   cause-code service-not-supported action terminate
   cause-code no-resource-available action retry-terminate max-retry 3
   cause-code no-response-received action retry-terminate max-retry 1
   cause-code reject action terminate
  exit
  message N4SessionModificationReq
   cause-code mandatory-ie-incorrect action terminate
   cause-code session-ctx-not-found action terminate
   cause-code reject action terminate
  exit
 exit
 interface sxa
  message SessionEstablishmentReq
   cause-code 2-255 action retry-terminate max-retry 4
  exit
 exit
exit
profile failure-handling gtp1
 interface gtpc message S5S8CreateBearerReq
  cause-code temp-fail
   action retry timeout 1000 max-retry 2
  exit
 exit
 interface gtpc message S5S8UpdateBearerReq
  cause-code temp-fail
   action retry timeout 1000 max-retry 2
  exit
 exit
```

```
 interface gtpc message S5S8DeleteBearerReq
  cause-code temp-fail
   action retry timeout 1000 max-retry 2
  exit
 exit
exit
profile access access1
 n26 idft enable timeout 15
 n2 idft enable timeout 15
 gtpc gtpc-failure-profile gtp1
 erir delay 1
 eps-fallback cbr delay 3000 max-retry 1 timeout 1
exit
profile access idft
 n1 t3591-pdu-mod-cmd timeout 2 max-retry 1
 n1 t3592-pdu-rel-cmd timeout 2 max-retry 1
 n26 idft enable timeout 15
 n2 idft enable timeout 15
 erir delay 2000
exit
profile tai-group TA1
 mcc 123 mnc 456
  tac list [ 00092a 2346 2356 ]
 exit
 mcc 310 mnc 260
  tac list [ 00092a 2346 2356 ]
  tac range start 1234 end 7890
  exit
 exit
 mcc 310 mnc 310
  tac list [ 2346 2356 2378 ]
  tac range start 5676 end 5767
  exit
 exit
exit
profile tai-group TA2
 mcc 310 mnc 260
  tac list [ 2346 5676 ]
 exit
exit
profile tai-group tgp2
 mcc 091 mnc 05
 exit
exit
profile ecgi-group ECGI1
 mcc 122 mnc 234
  ecgi range start 1234567 end 1234577
  exit
 exit
 mcc 123 mnc 456
  ecgi range start 1234567 end 1234577
  exit
 exit
 mcc 310 mnc 260
  ecgi range start 1234567 end 1234577
  exit
 exit
 mcc 310 mnc 310
 exit
exit
profile ecgi-group ECGI2
exit
profile ncgi-group NCGI1
 mcc 123 mnc 456
```

```
  ncgi range start 123456788 end 133456789
  exit
 exit
 mcc 310 mnc 260
  ncgi list [ 123456789 ]
  ncgi range start 123456788 end 234567891
  exit
 exit
 mcc 310 mnc 310
  ncgi list [ 123456789 133456789 ]
  ncgi range start 234567891 end 244567891
  exit
 exit
exit
profile ncgi-group NCGI2
 mcc 123 mnc 456
  ncgi range start 123456789 end 133456789
  exit
  ncgi range start 234567891 end 244567891
  exit
 exit
 mcc 310 mnc 260
  ncgi range start 123456789 end 133456789
  exit
 exit
exit
profile location-area-group loc1
 tai-group  TA1
 ecgi-group ECGI1
 ncgi-group NCGI1
exit
profile location-area-group loc2
 tai-group  TA2
 ncgi-group NCGI1
exit
profile radius
 deadtime           2
 detect-dead-server response-timeout 2
 max-retry          2
 timeout            2
 enable-packet-dump
 server 209.165.200.248 1812
  type     auth
  secret   $8$j1Tgf1IvRvdywBgDZsP7q7FPzo87+/c1QV99bLxz6AY=
  priority 1
 exit
 server 209.165.200.248 1813
  type     acct
  secret   $8$bANgMCn/x7CspByC/q5Jm1sMo5d9TZMKdTbEq7543wc=
  priority 10
 exit
 attribute
  nas-identifier CISCO-SMF
 exit
 accounting
  algorithm first-server
  max-retry 3
  timeout   1
  attribute
   nas-identifier CISCO-ACCT-SMF
  exit
 exit
 server-group sg1
  server auth 209.165.200.248 1812
```

```
  exit
  server acct 209.165.200.248 1813
  exit
  attribute
   nas-ip 209.165.200.226
  exit
  accounting
   attribute
    nas-ip 209.165.200.226
   exit
  exit
 exit
exit
profile radius-dynamic-author
 client 209.165.200.248
  secret $8$G7fLQoqcBFPFpZNstAQUT/VtoxHqGqwPdLNB1PliHOI=
 exit
exit
profile dnn cisco
 dns primary ipv4 209.165.200.239
 dns primary ipv6 2001:4870:e00b:1a::3
 dns secondary ipv6 2001:4870:e00b:1a::5
 network-element-profiles chf chf1
 network-element-profiles amf amf1
 network-element-profiles pcf pcf1
 network-element-profiles udm udm1
 network-element-profiles sepp sepp1
 dnn cisco network-function-list [ upf upf2 ]
 dnn rmgr cisco
 timeout absolute 360000 up-idle 900 cp-idle 1500
 charging-profile           chgprf1
 charging-qbc-profile       qbc_hsmf1
 virtual-mac                b6:6d:47:47:47:47
 pcscf-profile              pcscf1
 wps-profile                wps1
 ssc-mode 1 allowed [ 3 ]
 session type IPV4 allowed [ IPV6 IPV4V6 ]
 upf apn cisco
 qos-profile                qos_nonStdQci
 authentication secondary radius group sg1
 authentication algorithm pap 1 password-use-pco chap 2 convert-to-mschap mschap 3
 always-on                  false
 userplane-inactivity-timer 300
 only-nr-capable-ue         true
exit
profile dnn intershat
 dns primary ipv4 209.165.200.239
 dns primary ipv6 2001:4870:e00b:1a::3
 dns secondary ipv6 2001:4870:e00b:1a::5
 network-element-profiles chf chf1
 network-element-profiles amf amf1
 network-element-profiles pcf pcf1
 network-element-profiles udm udm1
 network-element-profiles sepp sepp1
 timeout absolute 360000 up-idle 900 cp-idle 1500
 charging-profile           chgprf1
 charging-qbc-profile       qbc_hsmf1
 virtual-mac                b6:6d:47:47:47:47
 nexthop-forwarding-address ipv4 209.165.200.254
 nexthop-forwarding-address ipv6 8454:8454::8454
 pcscf-profile              pcscf1
 wps-profile                wps1
 ssc-mode 1
 session type IPV4 allowed [ IPV6 IPV4V6 ]
```

```
 qos-profile                qos_nonStdQci
 authentication secondary radius group sg1
 authentication algorithm pap 1 password-use-pco chap 2 convert-to-mschap mschap 3
 always-on                  false
 dcnr                       true
 userplane-inactivity-timer 1800
 only-nr-capable-ue         true
 emergency                  false
exit
profile dnn sos
 network-element-profiles chf chf1
 network-element-profiles amf amf1
 network-element-profiles pcf pcf1
 network-element-profiles udm udm1
 virtual-mac b6:6d:47:47:47:47
 ssc-mode 1
 session type IPV4 allowed [ IPV6 IPV4V6 ]
 authorization local
 emergency   true
exit
profile dnn starent
 dns primary ipv4 209.165.200.226
 dns primary ipv6 2001:4870:e00b:1a::3
 dns secondary ipv6 2001:4870:e00b:1a::5
 network-element-profiles chf chf1
 network-element-profiles amf amf1
 network-element-profiles pcf pcf1
 network-element-profiles udm udm1
 dnn cisco network-function-list [ upf upf2 ]
 timeout absolute 360000 up-idle 60 cp-idle 600
 charging-profile           chgprf1
 virtual-mac                b6:6d:47:47:47:47
 pcscf-profile              pcscf1
 wps-profile                wps2
 ssc-mode 1
 session type IPV4 allowed [ IPV6 IPV4V6 ]
 upf apn intershat
 qos-profile                qos_F5972
 always-on                  false
 userplane-inactivity-timer 300
 only-nr-capable-ue         true
 emergency                  false
exit
profile sgw-qos-profile sgw-non-standardqci
 dscp-map operator-defined-qci 128 non-gbr arp-priority-level 5 uplink user-datagram
dscp-marking 0x1e
 dscp-map operator-defined-qci 128 non-gbr arp-priority-level 5 downlink user-datagram
dscp-marking 0x22 encaps-header copy-inner
exit
profile qos 5qi-to-dscp-mapping-table
 dscp-map qi5 1 uplink user-datagram dscp-marking 0x2D
 dscp-map qi5 1 downlink encsp-header dscp-marking 0x2F
 dscp-map qi5 3 uplink user-datagram dscp-marking 0x0c
 dscp-map qi5 3 downlink encsp-header dscp-marking 0x0c
 dscp-map qi5 5 uplink user-datagram dscp-marking 0x3D
 dscp-map qi5 5 downlink encsp-header dscp-marking 0x3F
 dscp-map qi5 6 uplink user-datagram dscp-marking 0x0c
 dscp-map qi5 6 downlink encsp-header dscp-marking 0x0c
 dscp-map qi5 7 uplink user-datagram dscp-marking 0x0e
 dscp-map qi5 7 downlink encsp-header dscp-marking 0x0e
 dscp-map qi5 8 uplink user-datagram dscp-marking 0x0e
 dscp-map qi5 8 downlink encsp-header dscp-marking 0x0e
 dscp-map qi5 9 uplink user-datagram dscp-marking 0x0a
 dscp-map qi5 9 downlink encsp-header dscp-marking 0x0a
```

```
 dscp-map qi5 43 uplink user-datagram dscp-marking 0x1D
 dscp-map qi5 43 downlink encsp-header dscp-marking 0x1F
exit
profile qos abc
 ambr ul "250 Kbps"
 ambr dl "500 Kbps"
 qi5      7
 arp priority-level 14
 arp preempt-cap NOT_PREEMPT
 arp preempt-vuln PREEMPTABLE
 priority 120
 max data-burst 2000
 dscp-map qi5 1 arp-priority-level 12 uplink user-datagram dscp-marking 0x2e
 dscp-map qi5 1 arp-priority-level 12 downlink user-datagram dscp-marking 0x12 encsp-header
 copy-inner
 dscp-map qi5 1 uplink user-datagram dscp-marking 0x2e
 dscp-map qi5 1 downlink user-datagram dscp-marking 0x12 encsp-header copy-inner
 dscp-map qi5 2 uplink user-datagram dscp-marking 0x3f
 dscp-map qi5 2 downlink user-datagram dscp-marking 0x2a encsp-header dscp-marking 0x0a
 dscp-map qi5 3 uplink user-datagram dscp-marking 0x2e
 dscp-map qi5 3 downlink user-datagram dscp-marking 0x12 encsp-header copy-inner
 dscp-map qi5 4 uplink user-datagram dscp-marking 0x3f
 dscp-map qi5 4 downlink user-datagram dscp-marking 0x2a encsp-header dscp-marking 0x0a
 dscp-map qi5 5 uplink user-datagram dscp-marking 0x2e
 dscp-map qi5 5 downlink user-datagram dscp-marking 0x12 encsp-header copy-inner
 dscp-map qi5 6 uplink user-datagram dscp-marking 0x3f
 dscp-map qi5 6 downlink user-datagram dscp-marking 0x2a encsp-header dscp-marking 0x0a
 dscp-map qi5 7 uplink user-datagram dscp-marking 0x3f
 dscp-map qi5 7 downlink user-datagram dscp-marking 0x2a encsp-header dscp-marking 0x0a
 dscp-map qi5 8 uplink user-datagram dscp-marking 0x2e
 dscp-map qi5 8 downlink user-datagram dscp-marking 0x12 encsp-header copy-inner
 dscp-map qi5 9 uplink user-datagram dscp-marking 0x3f
 dscp-map qi5 9 downlink user-datagram dscp-marking 0x2a encsp-header dscp-marking 0x0a
 dscp-map qi5 65 uplink user-datagram dscp-marking 0x2e
 dscp-map qi5 65 downlink user-datagram dscp-marking 0x12 encsp-header copy-inner
 dscp-map qi5 66 uplink user-datagram dscp-marking 0x3f
 dscp-map qi5 66 downlink user-datagram dscp-marking 0x2a encsp-header dscp-marking 0x0a
 dscp-map qi5 69 uplink user-datagram dscp-marking 0x2e
 dscp-map qi5 69 downlink user-datagram dscp-marking 0x12 encsp-header copy-inner
 dscp-map qi5 70 uplink user-datagram dscp-marking 0x3f
 dscp-map qi5 70 downlink user-datagram dscp-marking 0x2a encsp-header dscp-marking 0x0a
 dscp-map qi5 80 uplink user-datagram dscp-marking 0x2e
 dscp-map qi5 80 downlink user-datagram dscp-marking 0x12 encsp-header copy-inner
 dscp-map qi5 82 uplink user-datagram dscp-marking 0x3f
 dscp-map qi5 82 downlink user-datagram dscp-marking 0x2a encsp-header dscp-marking 0x0a
 dscp-map qi5 83 uplink user-datagram dscp-marking 0x3f
 dscp-map qi5 83 downlink user-datagram dscp-marking 0x2a encsp-header dscp-marking 0x0a
exit
profile qos qos1
 qi5      128
 arp priority-level 8
 arp preempt-cap NOT_PREEMPT
 arp preempt-vuln NOT_PREEMPTABLE
 priority 9
 max data-burst 2048
exit
profile qos qos_F5972
 dscp-map qi5 1 arp-priority-level 5 uplink user-datagram dscp-marking 0x1e
 dscp-map qi5 1 arp-priority-level 5 downlink user-datagram dscp-marking 0x22 encsp-header
 copy-inner
exit
profile qos qos_nonStdQci
 ambr ul "250 Kbps"
 ambr dl "500 Kbps"
```

```
 qi5 128
 arp priority-level 12
 arp preempt-cap NOT_PREEMPT
 arp preempt-vuln PREEMPTABLE
 dscp-map qi5 1 arp-priority-level 5 uplink user-datagram dscp-marking 0x1e
 dscp-map qi5 1 arp-priority-level 5 downlink user-datagram dscp-marking 0x22 encsp-header
 copy-inner
 dscp-map qi5 2 arp-priority-level 6 uplink user-datagram dscp-marking 0x3e
 dscp-map qi5 2 arp-priority-level 6 downlink user-datagram dscp-marking 0x23 encsp-header
 copy-inner
 dscp-map qi5 3 arp-priority-level 12 uplink user-datagram dscp-marking 0x2f
 dscp-map qi5 3 arp-priority-level 12 downlink user-datagram dscp-marking 0x14 encsp-header
 copy-inner
 dscp-map qi5 6 downlink encsp-header copy-inner
 dscp-map qi5 7 downlink encsp-header dscp-marking 0x01
 dscp-map qi5 15 arp-priority-level 12 uplink user-datagram dscp-marking 0x2f
 dscp-map qi5 15 arp-priority-level 12 downlink user-datagram dscp-marking 0x14 encsp-header
 copy-inner
 dscp-map qi5 65 arp-priority-level 5 uplink user-datagram dscp-marking 0x1e
 dscp-map qi5 65 arp-priority-level 5 downlink user-datagram dscp-marking 0x22 encsp-header
 copy-inner
 dscp-map qi5 70 arp-priority-level 12 uplink user-datagram dscp-marking 0x2f
 dscp-map qi5 70 arp-priority-level 12 downlink user-datagram dscp-marking 0x14 encsp-header
 copy-inner
 dscp-map qi5 80 downlink encsp-header copy-inner
 dscp-map qi5 81 downlink encsp-header copy-inner
 dscp-map qi5 83 arp-priority-level 6 uplink user-datagram dscp-marking 0x3e
 dscp-map qi5 83 arp-priority-level 6 downlink user-datagram dscp-marking 0x23 encsp-header
 copy-inner
 dscp-map qi5 85 downlink encsp-header dscp-marking 0x01
 dscp-map qi5 128 arp-priority-level 5 uplink user-datagram dscp-marking 0x1e
 dscp-map qi5 128 arp-priority-level 5 downlink user-datagram dscp-marking 0x22 encsp-header
 copy-inner
 dscp-map qi5 230 arp-priority-level 6 uplink user-datagram dscp-marking 0x3e
 dscp-map qi5 230 arp-priority-level 6 downlink user-datagram dscp-marking 0x23 encsp-header
 copy-inner
 dscp-map qi5 254 downlink encsp-header dscp-marking 0x01
exit
profile ppd ppd1
 fqi 1,10-15,43,65
 dscp 0 ppi 3
 dscp 1 ppi 2
 dscp 43 ppi 3
exit
profile nf-client nf-type udm
 udm-profile UP1
  locality LOC1
   priority 30
   service name type nudm-sdm
    endpoint-profile EP1
     capacity   30
     uri-scheme http
     version
      uri-version v2
      exit
     exit
     endpoint-name EP1
      primary ip-address ipv4 209.165.200.248
      primary ip-address port 9001
     exit
    exit
   exit
   service name type nudm-uecm
    endpoint-profile EP1
```

```
      capacity   30
      uri-scheme http
      endpoint-name EP1
       primary ip-address ipv4 209.165.200.248
       primary ip-address port 9001
      exit
     exit
    exit
    service name type nudm-ee
     endpoint-profile EP1
      capacity       30
      api-uri-prefix PREFIX
      api-root       ROOT
      uri-scheme     http
      endpoint-name EP1
       priority 56
       primary ip-address ipv4 209.165.200.248
       primary ip-address port 9001
      exit
     exit
    exit
   exit
  exit
 exit
exit
profile nf-client nf-type pcf
 pcf-profile PP1
  locality LOC1
   priority 30
   service name type npcf-smpolicycontrol
    endpoint-profile EP1
     capacity   30
     uri-scheme http
     endpoint-name EP1
      priority 100
      primary ip-address ipv4 209.165.200.248
      primary ip-address port 9003
     exit
     endpoint-name realPCF
      priority 50
      primary ip-address ipv4 209.165.200.226
      primary ip-address port 9082
     exit
    exit
   exit
  exit
 exit
exit
profile nf-client nf-type amf
 amf-profile AP1
  locality LOC1
   priority 30
   service name type namf-comm
    endpoint-profile EP2
     capacity   30
     uri-scheme http
     endpoint-name EP1
      priority 56
      primary ip-address ipv4 209.165.200.248
      primary ip-address port 9002
     exit
     endpoint-name realAMF
      priority 100
      primary ip-address ipv4 209.165.202.138
      primary ip-address port 8090
```

```
     exit
    exit
   exit
  exit
 exit
exit
profile nf-client nf-type chf
 chf-profile CP1
  locality LOC1
   priority 30
   service name type nchf-convergedcharging
    endpoint-profile EP1
     capacity   30
     uri-scheme http
     version
      uri-version v2
      exit
     exit
     endpoint-name EP1
      priority 100
      primary ip-address ipv4 209.165.200.248
      primary ip-address port 9004
     exit
    exit
   exit
  exit
 exit
 chf-profile CP2
  locality LOC1
   priority 31
   service name type nchf-convergedcharging
    endpoint-profile EP1
     capacity   30
     uri-scheme http
     version
      uri-version v2
      exit
     exit
     endpoint-name EP1
      priority 56
      primary ip-address ipv4 209.165.200.248
      primary ip-address port 9005
     exit
    exit
   exit
  exit
 exit
exit
profile nf-client nf-type sepp
 sepp-profile hsepp
  locality LOC1
   priority 30
   service name type nsmf-pdusession
    endpoint-profile EP1
     capacity   30
     uri-scheme http
     endpoint-name EP1
      priority 56
      primary ip-address ipv4 209.165.200.250
      primary ip-address port 8090
     exit
     endpoint-name lfs-hsepp
      priority 10
      primary ip-address ipv4 209.165.200.248
```

```
      primary ip-address port 8888
      secondary ip-address ipv4 209.165.200.249
      secondary ip-address port 8889
     exit
    exit
   exit
  exit
 exit
exit
profile nf-pair nf-type UDM
 nrf-discovery-group DISC1
 locality client  LOC1
 locality preferred-server LOC1
 locality geo-server GEO
 cache invalidation true timeout 20000
exit
profile nf-pair nf-type AMF
 nrf-discovery-group DISC1
 locality client  LOC1
 locality preferred-server LOC1
 locality geo-server GEO
exit
profile nf-pair nf-type PCF
 nrf-discovery-group DISC1
 locality client  LOC1
 locality preferred-server LOC1
 locality geo-server GEO
exit
profile nf-pair nf-type SEPP
 nrf-discovery-group DISC1
 locality client  LOC1
 locality preferred-server LOC1
 locality geo-server GEO
exit
profile nf-pair nf-type UPF
 nrf-discovery-group DISC1
 locality client  LOC1
 locality preferred-server LOC1
 locality geo-server GEO
exit
profile nf-pair nf-type CHF
 nrf-discovery-group DISC1
 locality client  LOC1
 locality preferred-server LOC1
 locality geo-server GEO
 cache invalidation true timeout 20000
exit
profile nf-client-failure nf-type udm
 profile failure-handling FH1
  service name type nudm-sdm
   message type UdmSdmGetUESMSubscriptionData
    status-code httpv2 504
     retry  1
     action continue
    exit
   exit
   message type UdmSdmSubscribeToNotification
    status-code httpv2 504
     retry  1
     action continue
    exit
   exit
   message type UdmSubscriptionReq
    status-code httpv2 504
```

```
      retry  1
      action continue
     exit
    exit
   exit
   service name type nudm-uecm
    message type UdmUecmRegisterSMF
     status-code httpv2 504
      retry  1
      action continue
     exit
    exit
    message type UdmUecmUnregisterSMF
     status-code httpv2 504
      action continue
     exit
    exit
    message type UdmRegistrationReq
     status-code httpv2 504
      action continue
     exit
    exit
   exit
  exit
 exit
profile nf-client-failure nf-type pcf
 profile failure-handling FH1
  service name type npcf-smpolicycontrol
   responsetimeout 4000
   message type PcfSmpolicycontrolCreate
    status-code httpv2 0,403
     action retry-and-ignore
    exit
    status-code httpv2 400,504
     action continue
    exit
    status-code httpv2 404
     action terminate
    exit
    status-code httpv2 500
     retry  2
     action retry-and-ignore
    exit
    status-code httpv2 503
     retry  2
     action retry-and-continue
    exit
   exit
   message type PcfSmpolicycontrolUpdate
    status-code httpv2 0,403
     action retry-and-ignore
    exit
    status-code httpv2 400,504
     action continue
    exit
    status-code httpv2 404
     action terminate
    exit
    status-code httpv2 500
     retry  2
     action retry-and-ignore
    exit
    status-code httpv2 503
     retry  2
```

```
      action retry-and-continue
     exit
    exit
    message type PcfSmpolicycontrolDelete
     status-code httpv2 0,403
      action retry-and-ignore
     exit
     status-code httpv2 400
      action continue
     exit
     status-code httpv2 404
      action terminate
     exit
     status-code httpv2 500
      retry  2
      action retry-and-ignore
     exit
     status-code httpv2 503
      retry  2
      action retry-and-continue
     exit
    exit
   exit
  exit
 exit
profile nf-client-failure nf-type chf
 profile failure-handling FH2
  service name type nchf-convergedcharging
   message type ChfConvergedchargingCreate
    status-code httpv2 0,500,504
     action continue
    exit
    status-code httpv2 400,404
     retry  3
     action retry-and-terminate
    exit
    status-code httpv2 403
     retry  3
     action retry-and-ignore
    exit
    status-code httpv2 503
     action terminate
    exit
   exit
   message type ChfConvergedchargingUpdate
    status-code httpv2 0,500,504
     action continue
    exit
    status-code httpv2 400,404
     retry  3
     action retry-and-terminate
    exit
    status-code httpv2 403
     retry  3
     action retry-and-ignore
    exit
    status-code httpv2 503
     action terminate
    exit
   exit
   message type ChfConvergedchargingDelete
    status-code httpv2 0,500,504
     action continue
    exit
```

```
    status-code httpv2 400,404
     retry  3
     action retry-and-terminate
    exit
    status-code httpv2 403
     retry  3
     action retry-and-ignore
    exit
    status-code httpv2 503
     action terminate
    exit
   exit
  exit
 exit
exit
profile nf-client-failure nf-type sepp
 profile failure-handling sepp
  service name type nsmf-pdusession
   responsetimeout 4000
   message type VsmfPduSessionCreate
    status-code httpv2 0
     retry  5
     action retry-and-terminate
    exit
    status-code httpv2 504
     retry  3
     action retry-and-terminate
    exit
   exit
   message type VsmfPduSessionUpdate
    status-code httpv2 0,401,404,503-504
     action retry-and-continue
    exit
    status-code httpv2 400
     action terminate
    exit
   exit
   message type VsmfPduSessionRelease
    status-code httpv2 0,504
     action retry-and-terminate
    exit
   exit
  exit
 exit
exit
profile smf smf1
 locality      LOC1
 instances 1 allowed-nssai [ slice1 slice2 ]
 load-profile  gtp-load1
 instances 1 fqdn   5gc.mnc456.mcc123.3gppnetwork.org
 instances 1 inter-plmn-fqdn 5gc.mnc210.mcc310.3gppnetwork.org
 instances 1 supported-features [ vsmf ]
 plmn-list mcc 123 mnc 456
 exit
 plmn-list mcc 310 mnc 310
 exit
 service name nsmf-pdu
  type               pdu-session
  schema             http
  service-id         1
  version            1.Rn.0.0
  http-endpoint base-url http://smf-service
  icmpv6-profile     icmpprf1
  compliance-profile comp1
```

```
  access-profile     access1
  subscriber-policy  polSub
 exit
exit
profile sgw sgw1
 locality          LOC1
 fqdn              cisco.com.apn.epc.mnc456.mcc123
 subscriber-policy polSub
 ddn failure-action-drop-timer 60
 ddn no-user-connect-retry-timer 60
 qci-qos-profile   sgw-non-standardqci
 wps-profile       wps1
 plmn-list mcc 123 mnc 456
 exit
 plmn-list mcc 310 mnc 260
 exit
exit
profile sgw-charging-threshold thre1
 cc profile value 1
  volume total 100000
  buckets  2
  duration 180
 exit
 cc profile value 2
  volume uplink 100000
  volume downlink 100000
  buckets  4
  duration 120
 exit
 cc profile value 4
  volume total 10000000
  buckets  4
  duration 300
 exit
 cc profile value 8
  volume total 100000
  buckets  2
  duration 3000
 exit
exit
profile overload gtp-overload1
 overload-exclude-profile self-protection gtp-overloadExclude1
 node-level
  tolerance minimum 15
  tolerance maximum 35
  reduction-metric minimum 20
  reduction-metric maximum 90
  advertise
   interval        300
   change-factor   15
   validity-period 60
  exit
  interface gtpc
   overloaded-action [ advertise ]
  exit
 exit
exit
profile overload-exclude gtp-overloadExclude1
 dnn-list       [ sos ]
 arp-list       [ 1 2 3 ]
 procedure-list [ session-delete ]
 message-priority s5
  upto 0
 exit
```

```
exit
profile load gtp-load1
 load-calc-frequency  30
 load-fetch-frequency 15
 advertise
  interval      30
  change-factor 5
 exit
 interface gtpc
  action advertise
 exit
exit
profile gtpp-profile pf1 gtpp
 local-storage
  file
   rotation
    volume        5
    cdr-count     1000
    time-interval 60
   exit
   name
    prefix               hSMF-cnsgw1
    format               .%Y-%m-%d%H-%M-%S.%4Q
    max-file-seq-num     9
    start-file-seq-num   1
    recover-file-seq-num true
   exit
   format custom1
  exit
 exit
 dictionary custom24
exit
profile gtpp-profile pf2 gtpp
 local-storage
  file
   rotation
    volume        5
    cdr-count     1000
    time-interval 60
   exit
   name
    prefix               hSMF-cnsgw1
    format               .%Y-%m-%d%H-%M-%S.%4Q
    max-file-seq-num     9
    start-file-seq-num   1
    recover-file-seq-num true
   exit
   format custom1
  exit
 exit
 dictionary custom24
exit
profile gtpp-profile pf4 gtpp
 local-storage
  file
   rotation
    volume        5
    cdr-count     1000
    time-interval 60
   exit
   name
    prefix               hSMF-cnsgw1
    format               .%Y-%m-%d%H-%M-%S.%4Q
    max-file-seq-num     9
```

```
    start-file-seq-num   1
    recover-file-seq-num true
   exit
   format custom1
  exit
 exit
 dictionary custom24
exit
profile dns-proxy
 timeout             6000
 round-robin-answers
 servers serv1
  ip       209.165.202.143
  port     53
  protocol tcp
 exit
 servers serv2
  ip       209.165.200.225
  port     53
  protocol tcp
 exit
exit
profile converged-core cc1
 max-upf-index 150
exit
nf-tls certificates cert1
 cert-data abc
 private_key k1
exit
active-charging service acs1
 bandwidth-policy BWP
  flow limit-for-bandwidth id 1 group-id 2
  flow limit-for-bandwidth id 2 group-id 3
  flow limit-for-bandwidth id 3 group-id 4
  group-id 2 direction uplink peak-data-rate 64000 peak-burst-size 8000 violate-action
discard
  group-id 2 direction downlink peak-data-rate 64000 peak-burst-size 8000 violate-action
discard
  group-id 3 direction uplink peak-data-rate 128000 peak-burst-size 12000 violate-action
discard
  group-id 3 direction downlink peak-data-rate 128000 peak-burst-size 12000 violate-action
 discard
  group-id 4 direction uplink peak-data-rate 3000000000 peak-burst-size 100 violate-action
 discard
  group-id 4 direction downlink peak-data-rate 3000000000 peak-burst-size 100 violate-action
 discard
 exit
 packet-filter pkt1
  ip local-port range 2 to 23
  ip protocol = 23
  ip remote-address = 209.165.201.0/27
  ip remote-port range 12 to 34
  ip tos-traffic-class = 23 mask = 23
  priority 23
 exit
 charging-action ca1
  billing-action egcdr
  content-id         51
  flow action redirect-url http://www.google.com
  flow limit-for-bandwidth id 1
  service-identifier 6000
  tft-notify-ue
  tos af11
  tft packet-filter pkt1
```

```
 exit
 charging-action caStaticOfflineOnline
  billing-action egcdr
  cca charging credit
  content-id         30
  flow limit-for-bandwidth direction uplink peak-data-rate 1000000000 peak-burst-size 100
violate-action discard committedDataRate 1000000000 committed-burst-size 100 exceed-action
 discard
  flow limit-for-bandwidth direction downlink peak-data-rate 1000000000 peak-burst-size 100
 violate-action discard committedDataRate 1000000000 committed-burst-size 100 exceed-action
 discard
  service-identifier 60
  tft-notify-ue
  tos af11
  tft packet-filter pkt1
 exit
 rulebase cisco
  billing-records egcdr
  edr transaction-complete http charging-edr http-edr
  dynamic-rule order first-if-tied
  egcdr threshold interval 1000
  action priority 1 ruledef ip-any-rule charging-action cisco
  route priority 1000 ruledef http-port-route analyzer http
 exit
 rulebase rba1
  action priority 1 dynamic-only ruledef rda1 charging-action ca1 description myrule1
  action priority 10 ruledef rda1 charging-action ca1
 exit
 urr-list urr_smf
  rating-group 10 urr-id 1
  rating-group 10 service-identifier 20 urr-id 2
  rating-group 10 service-identifier 21 urr-id 50
  rating-group 11 urr-id 3
  rating-group 11 service-identifier 21 urr-id 4
  rating-group 11 service-identifier 201 urr-id 11
  rating-group 12 urr-id 5
  rating-group 12 service-identifier 22 urr-id 6
  rating-group 13 urr-id 7
  rating-group 13 service-identifier 23 urr-id 8
  rating-group 30 urr-id 17
  rating-group 30 service-identifier 60 urr-id 18
  rating-group 30 service-identifier 61 urr-id 19
  rating-group 31 urr-id 20
  rating-group 31 service-identifier 61 urr-id 21
  rating-group 31 service-identifier 62 urr-id 22
  rating-group 32 urr-id 23
  rating-group 40 urr-id 24
  rating-group 51 service-identifier 6000 urr-id 32
  rating-group 100 urr-id 9
  rating-group 100 service-identifier 200 urr-id 10
  rating-group 100 service-identifier 201 urr-id 51
  rating-group 101 urr-id 11
  rating-group 101 service-identifier 201 urr-id 12
  rating-group 102 urr-id 13
  rating-group 102 service-identifier 202 urr-id 14
  rating-group 103 urr-id 15
  rating-group 103 service-identifier 203 urr-id 16
  rating-group 110 urr-id 25
  rating-group 199 urr-id 199
 exit
 ruledef adc_Youtube
  multi-line-or all-lines
 exit
 credit-control group onlineoffline
```

```
  diameter ignore-service-id true
 exit
 group-of-ruledefs adc_specific
  add-ruledef priority 1 ruledef adc_google
  add-ruledef priority 2 ruledef adc_facebook_https
  add-ruledef priority 3 ruledef adc_sni
 exit
gtpp group group1
 gtpp egcdr service-data-flow threshold interval 60
 gtpp egcdr service-data-flow threshold volume downlink 100000 uplink 100000 total 200000
exit
apn cisco
 gtpp group group1
 active-charging rulebase rba1
exit
apn intershat
 gtpp group group1
 active-charging rulebase rba1
exit
policy subscriber polSub
 precedence 1
  sst              22
  sdt              Abf123
  serving-plmn mcc 123
  serving-plmn mnc 456
  supi-start-range 100000000000001
  supi-stop-range  299999999999999
  gpsi-start-range 1000000000
  gpsi-stop-range  9999999999
  operator-policy  opPol1
 exit
 precedence 511
  operator-policy defOprPol1
 exit
exit
policy upf-selection up-policy1
 precedence 1
   [ dnn slice ]
 exit
 precedence 2
   [ dnn location ]
 exit
 precedence 3
   [ dnn pdn-type-session ]
 exit
 precedence 4
   [ dnn ]
 exit
exit
policy operator defOprPol1
 policy dnn         defPolDnn
 policy network-capability nc1
exit
policy operator opPol1
 policy dnn         polDnn
 policy network-capability nc1
exit
policy operator opPol2
 policy dnn         polDnn
 policy network-capability nc1
exit
policy dnn defPolDnn
 profile default-profile
 dnn cisco profile cisco
```

```
 dnn dnn2 profile profile2
 dnn intershat profile intershat
 dnn sos profile sos
 dnn starent profile abc.com
exit
policy dnn dnnPol1
 profile default
 dnn starent profile abc.com
exit
policy dnn polDnn
 profile default-profile
 dnn cisco profile cisco
 dnn dnn2 profile profile2
 dnn intershat profile intershat
 exit
policy network-capability nc1
 nw-support-local-address-tft true
exit
nssai name slice1
 sst 1
 dnn [ cisco intershat sos starent ]
exit
nssai name slice2
 sst 2
 sdt abf123
 dnn [ cisco intershat sos starent ]
exit
system-diagnostics session-consistency action monitor
ipam
 instance 1
  source local
  address-pool v4pool1
   vrf-name ISP
   tags
    dnn intershat
   exit
   ipv4
    split-size
     per-cache 65536
     per-dp    65536
    exit
    address-range 209.165.201.1 209.165.201.30
   exit
  exit
 exit
exit
group nf-mgmt NFMGMT1
 nrf-mgmt-group MGMT
 locality       LOC1
exit
group nrf discovery DISC1
 nrf-type PLMN
 service type nrf nnrf-disc
  endpoint-profile
   name       EP1
   uri-scheme http
   version
    uri-version v1
     full-version 209.165.200.224/27
    exit
   exit
   endpoint-name sauNRF
    priority 80
    capacity 56
```

```
    primary ip-address ipv4 209.165.201.4
    primary ip-address port 8095
   exit
  exit
 exit
exit
cdl system-id          2
cdl enable-geo-replication true
cdl zookeeper replica 1
cdl remote-site 1
 db-endpoint host 209.165.202.154
 db-endpoint port 8882
 kafka-server 209.165.200.226 10092
 exit
exit
cdl label-config session
 endpoint key smi.cisco.com/node-type
 endpoint value smf-cdl
 slot map 1
  key   smi.cisco.com/node-type
  value smf-cdl
 exit
 slot map 2
  key   smi.cisco.com/node-type
  value smf-cdl-1
 exit
 index map 1
  key   smi.cisco.com/node-type
  value smf-cdl-1
 exit
exit
cdl logging default-log-level error
cdl logging logger datastore.ep.session
 level debug
exit
cdl logging logger datastore.index.session
 level debug
exit
cdl logging logger datastore.slot.session
 level debug
exit
cdl datastore session
 label-config    session
 geo-remote-site [ 1 ]
 slice-names     [ 1 2 ]
 endpoint replica 1
 endpoint external-ip 209.165.202.158
 endpoint external-port 8882
 index replica 1
 index map    1
 index write-factor 1
 slot replica 1
 slot map     2
 slot write-factor 1
exit
cdl kafka replica 1
cdl kafka ssl-settings enable-ssl false
cdl kafka label-config key smi.cisco.com/pod-type
cdl kafka label-config value cdl-kafka-1
cdl kafka external-ip 209.165.202.158 10092
exit
etcd replicas 1
edr reporting disable
edr all subscribers
```

```
edr file transaction
 reporting enable
exit
edr file transaction-collision
 reporting enable
exit
instance instance-id 1
 endpoint li
  replicas 1
  nodes    1
  vip-ip 209.165.200.226
 exit
 endpoint nodemgr
  replicas 1
  nodes    2
 exit
 endpoint gtp
  replicas                1
  nodes                   2
  internal-vip            209.165.200.226
  mbr-optimization
   enable            true
   teid-cache-expiry 120000
   mbr-cache-expiry  50
  exit
  enable-gtpc-bypass      true
  retransmission timeout 5 max-retry 4
  enable-cpu-optimization true
  enable-go-encdec        true
  sla response 5000
  sla procedure 5000
  vip-ip 209.165.200.226
  interface s5
   sla procedure 5000
   echo interval          60
   echo retransmission-timeout 5
   echo max-retransmissions 4
   retransmission timeout 5 max-retry 4
   enable-go-encdec true
  exit
  interface s5e
   sla response 5000
   sla procedure 5000
   echo interval          60
   echo retransmission-timeout 5
   echo max-retransmissions 4
   path-failure detection-policy pol_egtp_path_failure
   retransmission timeout 5 max-retry 4
   enable-go-encdec true
  exit
  interface s2b
   echo interval          60
   echo retransmission-timeout 5
   echo max-retransmissions 4
  exit
  interface gtpu
  exit
  interface s11
   sla response 5500
   echo interval          60
   echo retransmission-timeout 5
   echo max-retransmissions 4
   path-failure detection-policy pol_egtp_path_failure
   retransmission timeout 5 max-retry 4
```

```
  enable-go-encdec true
  dscp             0x20
  vip-ip 209.165.200.226
 exit
exit
endpoint pfcp
 replicas               1
 nodes                  2
 internal-vip           209.165.200.226
 retransmission timeout 3 max-retry 2
 enable-cpu-optimization true
 vip-ip 209.165.200.226
 interface sxa
  sla response 4000
  heartbeat
   interval               60
   retransmission-timeout 9
   max-retransmissions    10
  exit
  retransmission timeout 5 max-retry 4
  vip-ip 209.165.200.226
  dispatcher
   count         25
   capacity      250
   outbound      true
   cache         true
   threshold     500
   expiry        60000
   nonresponsive 30500
  exit
 exit
 interface n4
  heartbeat
   interval               0
   retransmission-timeout 3
   max-retransmissions    5
  exit
  retransmission timeout 3 max-retry 2
  vip-ip 209.165.200.226
  dispatcher
   count         5
   capacity      1000
   outbound      true
   threshold     5000
   expiry        60000
   nonresponsive 30500
  exit
 exit
exit
endpoint service
 replicas 1
 nodes    1
exit
endpoint protocol
 replicas     1
 nodes        2
 internal-vip 209.165.200.226
 vip-ip 209.165.200.226
exit
endpoint radius
 replicas 1
 nodes    1
 vip-ip 209.165.200.226
 interface coa-nas
```

```
   vip-ip 209.165.200.226 vip-port 3799
  exit
 exit
 endpoint sgw-service
  replicas 1
  nodes    1
 exit
 endpoint dns-proxy
  replicas 1
 exit
 endpoint sbi
  replicas 1
  nodes    1
  vip-ip 209.165.200.226
  interface nrf
   vip-ip 209.165.200.226
  exit
 exit
exit
logging transaction message enable
logging transaction duplicate enable
logging level application trace
logging level transaction trace
logging level tracing debug
logging name infra.application.core level application warn
logging name infra.application.core level tracing warn
logging name infra.config.core level application trace
logging name infra.config.core level transaction trace
logging name infra.config.core level tracing off
logging name infra.dispatcher.core level application warn
logging name infra.dispatcher.core level transaction warn
logging name infra.dispatcher.core level tracing warn
logging name infra.heap_dump.core level application warn
logging name infra.ipcstream.core level application error
logging name infra.ipcstream.core level transaction warn
logging name infra.ipcstream.core level tracing warn
logging name infra.memory_cache.core level application error
logging name infra.memory_cache.core level transaction error
logging name infra.message_log.core level transaction trace
logging name infra.resource_monitor.core level application warn
logging name infra.resource_monitor.core level transaction warn
logging name infra.rest_server.core level application error
logging name infra.rest_server.core level tracing off
logging name infra.topology.core level application off
logging name infra.topology.core level transaction off
logging name infra.topology.core level tracing off
deployment
 app-name               cnsgw-smf-1
 cluster-name           Local
 dc-name                DC
 model                  small
 logical-nf-instance-id 1
exit
k8 label protocol-layer key smi.cisco.com/vm-type value smf-proto-1
exit
k8 label service-layer key smi.cisco.com/vm-type value smf-svc-1
exit
k8 label cdl-layer key smi.cisco.com/node-type value smf-cdl-1
exit
k8 label oam-layer key smi.cisco.com/node-type value oam
exit
instances instance 1
 system-id  smf
 cluster-id smf
```

```
 slice-name 1
exit
local-instance instance 1
system mode running
helm default-repository roaming-ph2
helm repository cnsgw-1
 access-token
dev-deployer.gen:AKCp5ekcXA7TknM9DbLASNBw4jwVEsx9Z9WpQwEvCvCQ2mJhLymcz6BfbH38YJiWC6fn1cKmw
 url
https://engci-maven-master.cisco.com/artifactory/smi-fuse-internal-snapshot/mobile-cnat-cn/cn-products/master/
exit
helm repository roaming-cx
 access-token
dev-deployer.gen:AKCp5ekcXA7TknM9DbLASNBw4jwVEsx9Z9WpQwEvCvCQ2mJhLymcz6BfbH38YJiWC6fn1cKmw
 url
https://engci-maven-master.cisco.com/artifactory/mobile-cnat-charts-release/releng-builds/2021.03.m0.d4.0/ccg/2021.03.m0.d4.0.i77/ccg.2021.03.m0.d4.0.i77/
exit
helm repository roaming-ph2
 access-token
dev-deployer.gen:AKCp5ekcXA7TknM9DbLASNBw4jwVEsx9Z9WpQwEvCvCQ2mJhLymcz6BfbH38YJiWC6fn1cKmw
 url
https://engci-maven-master.cisco.com/artifactory/smi-fuse-internal-snapshot/mobile-cnat-cn/cn-products/dev-smf-amigos/
exit
k8s name          cnsgw-smf-1
k8s namespace     cnsgw-1
k8s nf-name       smf
k8s registry      dockerhub.cisco.com/smi-fuse-docker-internal
k8s single-node   true
k8s use-volume-claims false
k8s ingress-host-name 209.165.200.238.nip.io
aaa authentication users user admin
 uid        117
 gid        117
 password   $1$bQRuPxWc$ESF/KLDQBkmdQNtrReTJN1
 ssh_keydir /tmp/admin/.ssh
 homedir    /tmp/admin
exit
aaa authentication users user liadmin
 uid        201
 gid        2011
 password   $1$LugH/seF$hi4y0QnpOZoEiJDqGLd0L.
 ssh_keydir /tmp/liadmin/.ssh
 homedir    /tmp/liadmin
exit
aaa authentication users user liadmin2
 uid        202
 gid        2021
 password   $1$HBRlXp0W$pmaMFhDV9QIayXTxEZtxc0
 ssh_keydir /tmp/liadmin2/.ssh
 homedir    /tmp/liadmin2
exit
aaa authentication users user liadmin3
 uid        203
 gid        2031
 password   $1$kE6v4ZBD$sv97OlhMCmTtjm7Q35Esq1
 ssh_keydir /tmp/liadmin3/.ssh
 homedir    /tmp/liadmin3
exit
aaa ios level 0
 prompt "\h> "
exit
aaa ios level 15
 prompt "\h# "
exit
```

```
aaa ios privilege exec
 level 0
  command action
  exit
  command autowizard
  exit
  command enable
  exit
  command exit
  exit
  command help
  exit
  command startup
  exit
 exit
 level 15
  command configure
  exit
 exit
exit
nacm write-default deny
nacm groups group LI
 user-name [ liadmin ]
exit
nacm groups group LI2
 user-name [ liadmin2 ]
exit
nacm groups group LI3
 user-name [ liadmin3 ]
exit
nacm groups group admin
 user-name [ admin ]
exit
nacm rule-list admin
 group [ admin ]
 rule li-deny-tap
  module-name       lawful-intercept
  path              /lawful-intercept
  access-operations *
  action            deny
 exit
 rule li-deny-clear
  module-name       tailf-mobile-smf
  path              /clear/lawful-intercept
  access-operations *
  action            deny
 exit
 rule any-access
  action permit
 exit
exit
nacm rule-list confd-api-manager
 group [ confd-api-manager ]
 rule any-access
  action permit
 exit
exit
nacm rule-list ops-center-security
 group [ * ]
 rule change-self-password
  module-name       ops-center-security
  path              /smiuser/change-self-password
  access-operations exec
  action            permit
```

```
 exit
 rule smiuser
  module-name       ops-center-security
  path              /smiuser
  access-operations exec
  action            deny
 exit
exit
nacm rule-list lawful-intercept
 group [ LI LI2 LI3 ]
 rule li-accept-tap
  module-name       lawful-intercept
  path              /lawful-intercept
  access-operations *
  action            permit
 exit
 rule li-accept-clear
  module-name       tailf-mobile-smf
  path              /clear/lawful-intercept
  access-operations *
  action            permit
 exit
exit
```