



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 compl
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 udml
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-snsais ]
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 s1l 0x26
  message-priority [ pfcg gtpc ]
exit
profile wps wps_F5972
  arp 1-4,14
  dscp n3 0x0F
  message-priority [ pfcg 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 icmpprfl
  options virtual-mac b6:6d:57:45:45:45
  exit
profile charging chgprfl
  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 pfcpc
    message N4SessionEstablishmentReq
      cause-code pfcpc-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
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 $8$j1TgflIvRvdywBgDZsP7q7FPzo87+/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
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
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 udml
  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 sgl
  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 udml
  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 ppdl
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
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
profile nf-client nf-type pcf
pcf-profile PP1
    locality LOC1
    priority 30
    service name type npcfsmpolicycontrol
    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
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
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
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 UdmSdmGetUESMSSubscriptionData
        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
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
profile nf-client-failure nf-type pcf
profile failure-handling FH1
    service name type npcfsmpolicycontrol
    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
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
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
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 compl

```



```
    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 1000000
    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
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 gtp-profile pf1 gtp
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
dictionary custom24
exit
profile gtp-profile pf2 gtp
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
dictionary custom24
exit
profile gtp-profile pf4 gtp
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 ccl
        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 cal
        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 rbal
action priority 1 dynamic-only ruledef rdal charging-action cal description myrule1
action priority 10 ruledef rdal charging-action cal
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
gtpv group group1
  gtpv egcdr service-data-flow threshold interval 60
  gtpv egcdr service-data-flow threshold volume downlink 100000 uplink 100000 total 200000
exit
apn cisco
  gtpv group group1
  active-charging rulebase rba1
exit
apn intershat
  gtpv 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
    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 pfc
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 cmsgw-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 cmsgw-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.r0.d4.0/ccg/2021.03.r0.d4.0.i77/ccg.2021.03.r0.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          cmsgw-smf-1
  k8s namespace     cmsgw-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$sv970lhMcmTtjm7Q35Esq1
    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
```

