



Sample SMF Configuration

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Feature Summary and Revision History

Summary Data

Table 1: Summary Data

Applicable Product(s) or FunctionalArea	SMF
Applicable Platform(s)	SMI
Feature Default Setting	Not Applicable
Related Changes in this Release	Not Applicable
Related Documentation	Not Applicable

Revision History

Table 2: Revision History

Revision Details	Release
Updated the Sample SMF Configuration information for this release.	Pre-2020.02.0

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.

Sample Configuration

```

===== snip =====
ipam
  source local
  address-pool ipv6
    vrf-name ISP
    tags
      dnn intershat
    exit
  ipv6
    prefix-ranges
      prefix-range 2001:4870:e00b:1500:: length 56
    exit
  exit
  address-pool poolv4
    vrf-name ISP
    tags
      dnn intershat
    exit
  ipv4
    split-size
      per-cache 1024
      per-dp    256
    exit
    address-range 15.0.0.1 15.0.0.254
  exit
exit
group nf-mgmt NFMGMT1
  nrf-mgmt-group MGMT
  locality      LOC1
exit
group nrf discovery udmdiscovery
  service type nrf nnrf-disc
    endpoint-profile epprof
      capacity   10
      priority   1
      uri-scheme http
      version
        uri-version v1
        full-version 1.1.1.[1]
      exit
    exit
    endpoint-name endpointName
      priority 1
      capacity 100
      primary ip-address ipv4 10.86.73.206
      primary ip-address port 8082
    exit
  exit
exit
group nrf mgmt MGMT
  service type nrf nnrf-nfm
    endpoint-profile mgmt-1
      priority 1
      uri-scheme http
      endpoint-name mgmt-1
      primary ip-address ipv4 10.86.73.206
      primary ip-address port 8082
      secondary ip-address ipv4 10.86.73.206
      secondary ip-address port 8083
      tertiary ip-address ipv4 10.86.73.206
      tertiary ip-address port 8084

```

```
        exit
        exit
        exit
exit
cdl node-type smf-cdl
cdl zookeeper replica 2
cdl kafka replica 2
etcd replicas 1
endpoint nodemgr
exit
endpoint gtp
replicas 1
vip-ip 10.86.73.208
exit
endpoint pfcp
replicas 1
nodes 2
exit
endpoint service
replicas 1
nodes 1
exit
endpoint protocol
replicas 1
nodes 2
vip-ip 10.86.73.208
exit
endpoint sbi
replicas 1
nodes 2
vip-ip 10.86.73.208
interface nrf
loopbackPort 7005
vip-ip 20.20.20.5 vip-port 9005
exit
interface n7
loopbackPort 7001
vip-ip 20.20.20.1 vip-port 9001
exit
interface n10
loopbackPort 7004
vip-ip 20.20.20.4 vip-port 9004
exit
interface n40
loopbackPort 7003
vip-ip 20.20.20.3 vip-port 9003
exit
exit
logging level application trace
logging level transaction trace
logging level tracing off
logging name infra.config.core level application debug
logging name infra.config.core level transaction warn
logging name infra.config.core level tracing warn
logging name infra.resource_monitor.core level application warn
logging name infra.resource_monitor.core level transaction warn
deployment
app-name SMF
cluster-name Local
dc-name DC
model small
exit
k8 label protocol-layer key smi.cisco.com/node-type value smf-proto
exit
```

Sample Configuration

```

k8 label service-layer key vm-type value smf-svc
exit
k8 label cdl-layer key smi.cisco.com/node-type value smf-cdl
exit
k8 label oam-layer key smi.cisco.com/node-type value oam
exit
system mode running
helm default-repository smf
helm repository smf
url
https://engci-maven-master.cisco.com/artifactory-smi-fuse-internal-snapshot/mobile-cnat-smf-smf-products/master/
exit
helm repository smf-stage
url
https://engci-maven-master.cisco.com/artifactory-smi-fuse-internal-snapshot/mobile-cnat-smf-smf-products/dev-smf-stage/
exit
k8s namespace      smf
k8s registry       dockerhub.cisco.com/smi-fuse-docker-internal
k8s single-node    false
k8s use-volume-claims false
k8s ingress-host-name 10.86.73.204.nip.io
profile dnn intershat
dns primary ipv4 11.11.1.1
dns primary ipv6 66:66:1::aa
dns secondary ipv4 22.22.2.2
dns secondary ipv6 66:66:2::bb
network-element-profiles chf chf1
network-element-profiles amf amf1
network-element-profiles pcf pcf1
network-element-profiles udm udm1
dnn starent.com network-function-list [ upf ]
charging-profile chgprf1
virtual-mac      b6:6d:47:47:47:47
pcscf-profile    pcscf1
ssc-mode 1
session type IPV4 allowed [ IPV4V6 ]
upf apn cisco.com
exit
profile dnn profDnn1
dnn cisco.com network-function-list [ chf pcf udm upf ]
charging-profile chgprf1
ssc-mode 1
session type IPV4
exit
profile dnn profDnn2
dnn cisco.com network-function-list [ chf pcf rmgr udm upf ]
charging-profile chgprf1
ssc-mode 1
session type IPV4
exit
profile charging chgprf1
method           [ offline ]
limit volume 20
limit duration 60
tight-interworking-mode true
reporting-level online rating-group
reporting-level offline service-id
exit
profile pcscf pcscf1
v4-list
precedence 3
primary 3.3.3.1
secondary 3.3.3.2
exit

```

```
precedence 5
    primary 5.5.5.1
    secondary 5.5.5.2
exit
precedence 7
    primary 7.7.7.1
    secondary 7.7.7.2
exit
exit
v6-list
precedence 3
    primary 33:33::1
    secondary 33:33::2
exit
precedence 5
    primary 55:55::1
    secondary 55:55::2
exit
exit
v4v6-list
precedence 3
    primary ipv4 46.46.33.1
    primary ipv6 46:46:33::1
    secondary ipv4 46.46.33.2
    secondary ipv6 46:46:33::2
exit
precedence 5
    primary ipv4 46.46.55.1
    primary ipv6 46:46:55::1
    secondary ipv4 46.46.55.2
    secondary ipv6 46:46:55::2
exit
precedence 7
    primary ipv4 46.46.77.1
    primary ipv6 46:46:77::1
    secondary ipv4 46.46.77.2
    secondary ipv6 46:46:77::2
exit
exit
exit
profile charging-characteristics 1
    charging-profile chgprfl
exit
profile icmpv6 icmprrf1
    options virtual-mac b6:6d:57:45:45:45
exit
profile smf smf1
    locality      LOC1
    bind-address ipv4 10.86.73.208
    bind-port     8090
    fqdn         192.168.10.20
    allowed-nssai [ slice1 slice2 ]
    plmn-id      mcc 123
    plmn-id      mnc 456
    service name nsmf-pdu
        type          pdu-session
        schema        http
        version       1.Rn.0.0
    http-endpoint base-url http://smf-service
    icmpv6-profile   icmprrf1
    compliance-profile dec18
    access-profile   access1
    policy subscriber polSub
exit
```

Sample Configuration

```

exit
profile compliance dec18
  service nsmf-pdusession
    version uri v1
    version full 1.0.0
    version spec 15.2.0
exit
service namf-comm
  version uri v1
  version full 1.0.0
  version spec 15.2.0
exit
service n1
  version uri v1
  version full 1.0.0
  version spec 15.2.0
exit
service n2
  version uri v1
  version full 1.0.0
  version spec 15.2.0
exit
service nudm-sdm
  version uri v1
  version full 1.0.0
  version spec 15.2.1
exit
service nudm-uecm
  version uri v1
  version full 1.0.0
  version spec 15.2.1
exit
service nnrf-disc
  version uri v1
  version full 1.0.0
  version spec 15.2.0
exit
service nnrf-nfm
  version uri v1
  version full 1.0.0
  version spec 15.2.0
exit
service npcf-smpolicycontrol
  version uri v1
  version full 1.0.0
  version spec 15.2.0
exit
service nchf-convergedcharging
  version uri v2
  version full 1.0.0
  version spec 15.2.1
exit
exit
profile network-element amf amf1
  nf-client-profile      amfP1
  failure-handling-profile FH3
  query-params [ dnn ]
exit
profile network-element pcf pcf1
  nf-client-profile      pcfP1
  failure-handling-profile FH1
  rulebase-prefix         cbn#
  predefined-rule-prefix crn#
exit

```

```
profile network-element udm udm1
    nf-client-profile          udmP1
    failure-handling-profile  FH1
exit
profile network-element upf upf1
    n4-peer-address ipv4 10.106.183.240
    n4-peer-port 8805
    keepalive   60
    dnn-list      [ dnn1 intershat starent ]
exit
profile network-element chf chf1
    nf-client-profile          chfP1
    failure-handling-profile  FH2
    nf-client-profile-offline  CP2
    failure-handling-profile-offline FH2
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 2 arp-priority-level 3 uplink user-datatype dscp-marking 0x1c
    dscp-map qi5 2 arp-priority-level 3 downlink user-datatype dscp-marking 0x1a encsp-header
    dscp-marking 0x1b
    dscp-map qi5 3 arp-priority-level 3 uplink user-datatype dscp-marking 0x4
    dscp-map qi5 3 arp-priority-level 3 downlink user-datatype dscp-marking 0x3 encsp-header
copy-inner
exit
profile access access1
    eps-fallback cbr delay 500 max-retry 10 timeout 3
    n26 idft enable timeout 15
    n2 idft enable timeout 15
exit
profile nf-client nf-type udm
    udm-profile udmP1
    locality LOC1
    priority 30
    service name type nudm-sdm
        endpoint-profile EP1
            capacity 30
            uri-scheme http
            endpoint-name EP1
            primary ip-address ipv4 10.86.73.206
            primary ip-address port 9007
        exit
    exit
exit
service name type nudm-uecm
    endpoint-profile EP1
    capacity 30
    uri-scheme http
    endpoint-name EP1
    primary ip-address ipv4 10.86.73.206
    primary ip-address port 9001
    exit
exit
exit
exit
exit
exit
```

Sample Configuration

```

profile nf-client nf-type pcf
pcf-profile pcfP1
locality LOC1
priority 30
service name type npcf-am-policy-control
endpoint-profile EP1
capacity 30
uri-scheme http
endpoint-name EP1
priority 50
primary ip-address ipv4 10.86.73.206
primary ip-address port 9003
exit
exit
exit
service name type npcf-smpolicycontrol
endpoint-profile EP1
capacity 30
uri-scheme http
endpoint-name EP1
priority 5
primary ip-address ipv4 10.86.73.206
primary ip-address port 9003
exit
endpoint-name realPCF
priority 10
primary ip-address ipv4 10.86.73.210
primary ip-address port 9082
exit
exit
exit
exit
exit
profile nf-client nf-type amf
amf-profile amfP1
locality LOC1
priority 10
service name type namf-comm
endpoint-profile EP1
capacity 20
uri-scheme http
endpoint-name EP1
priority 30
primary ip-address ipv4 10.86.73.206
primary ip-address port 9002
exit
exit
exit
exit
exit
exit
profile nf-client nf-type chf
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 10.86.73.206
    primary ip-address port 9906
    exit
    exit
    exit
    exit
chf-profile chfP1
    locality LOC1
    priority 10
    service name type nchf-convergedcharging
        endpoint-profile EP1
            capacity 30
            uri-scheme http
            version
                uri-version v2
            exit
            exit
        endpoint-name EP1
            priority 50
            primary ip-address ipv4 10.86.73.206
            primary ip-address port 9904
        exit
        endpoint-name EP2
            priority 80
            primary ip-address ipv4 10.86.73.206
            primary ip-address port 9905
        exit
        exit
        exit
    exit
profile nf-pair nf-type UDM
    locality client LOC1
    locality geo-server GEO
exit
profile nf-pair nf-type AMF
    locality client LOC1
    locality geo-server GEO
exit
profile nf-pair nf-type PCF
    locality client LOC1
    locality geo-server GEO
exit
profile nf-pair nf-type UPF
    nrf-discovery-group udmDiscovery
    locality client LOC1
    locality preferred-server LOC1
    locality geo-server GEO
exit
profile nf-pair nf-type CHF
    locality client LOC1
    locality preferred-server LOC1
    locality geo-server GEO
exit
profile nf-client-failure nf-type chf
    profile failure-handling FH2
        service name type nchf-convergedcharging
            message type ChfConvergedchargingCreate
            status-code httpv2 0
            action continue
```

Sample Configuration

```

    exit
    exit
    message type ChfConvergedchargingUpdate
        status-code httpv2 0
        action continue
    exit
    exit
    exit
    exit
    policy subscriber polSub
        precedence 1
            sst          01
            sdt          ABcd01
            serving-plmn mcc 123
            serving-plmn mnc 456
            supi-start-range 1000000000000001
            supi-stop-range 9999999999999999
            gpsi-start-range 1000000000
            gpsi-stop-range 9999999999
            operator-policy opPol1
        exit
    exit
    policy operator opPol1
        policy dnn opPolDnn1
    exit
    policy dnn dnnPol1
        profile default
        dnn starent profile abc.com
    exit
    policy dnn opPolDnn1
        dnn intershat profile intershat
        dnn intershat1 profile profDnn1
    exit
    policy dnn polDnn
        profile default
        dnn intershat profile intershat
        dnn intershat1 profile profDnn1
        dnn intershat2 profile profDnn2
    exit
    nssai name slice1
        sst 01
        sdt ABcd01
        dnn [ intershat ]
    exit
    nssai name slice2
        sst 02
        sdt 000003
        dnn [ cisco.com ]
    exit
    active-charging service acs1
        packet-filter pkt1
            ip local-port range 2 to 23
            ip protocol = 23
            ip remote-address = 10.10.10.0/24
            ip remote-port range 12 to 34
            ip tos-traffic-class = 23 mask = 23
            priority 23
        exit
        packet-filter pkt2
            direction uplink
            ip local-port = 100
            ip protocol = 100
            ip remote-address = 1.1.1.1/32

```

```
ip remote-port = 140
priority 100
exit
packet-filter pkt3
direction downlink
ip local-port = 111
ip protocol = 111
ip remote-address = 2.2.2.2/31
ip remote-port = 111
priority 111
exit
charging-action ca1
allocation-retention-priority 12 pci NOT_PREEMPT pvi NOT_PREEMPTABLE
    flow limit-for-bandwidth direction uplink peak-data-rate 1000000 peak-burst-size 100
violate-action discard committedDataRate 2000000 committed-burst-size 100 exceed-action
discard
    flow limit-for-bandwidth direction downlink peak-data-rate 2000000 peak-burst-size 100
violate-action discard committedDataRate 3000000 committed-burst-size 100 exceed-action
discard
    qos-class-identifier 3
    tft-notify-ue
    tos af11
    tft packet-filter pkt1
exit
charging-action ca10
    flow limit-for-bandwidth direction uplink peak-data-rate 2000000000 peak-burst-size 100
violate-action discard
    flow limit-for-bandwidth direction downlink peak-data-rate 3000000000 peak-burst-size 100
violate-action discard
    tos af11
exit
charging-action ca11
    flow limit-for-bandwidth direction uplink peak-data-rate 2000000000 peak-burst-size 100
violate-action discard
    flow limit-for-bandwidth direction downlink peak-data-rate 3000000000 peak-burst-size 100
violate-action discard
exit
charging-action ca12
    flow limit-for-bandwidth direction uplink peak-data-rate 2000000 peak-burst-size 100
violate-action discard
    flow limit-for-bandwidth direction downlink peak-data-rate 3000000 peak-burst-size 100
violate-action discard
exit
charging-action ca13
    flow limit-for-bandwidth direction uplink peak-data-rate 2000000 peak-burst-size 100
violate-action discard
    flow limit-for-bandwidth direction downlink peak-data-rate 3000000 peak-burst-size 100
violate-action discard
exit
charging-action ca2
allocation-retention-priority 13 pci NOT_PREEMPT pvi NOT_PREEMPTABLE
    flow limit-for-bandwidth direction uplink peak-data-rate 2000000000 peak-burst-size 100
violate-action discard committedDataRate 3000000000 committed-burst-size 100 exceed-action
discard
    flow limit-for-bandwidth direction downlink peak-data-rate 3000000000 peak-burst-size 100
violate-action discard committedDataRate 4000000000 committed-burst-size 100 exceed-action
discard
    qos-class-identifier 2
    tft-notify-ue
    tos af11
    tft packet-filter pkt2
exit
charging-action ca20
    flow limit-for-bandwidth direction uplink peak-data-rate 1000000 peak-burst-size 100
```

Sample Configuration

```

violate-action discard
  flow limit-for-bandwidth direction downlink peak-data-rate 1000000 peak-burst-size 100
violate-action discard
exit
charging-action ca21
  flow limit-for-bandwidth direction uplink peak-data-rate 1000000 peak-burst-size 100
violate-action discard
  flow limit-for-bandwidth direction downlink peak-data-rate 1000000 peak-burst-size 100
violate-action discard
exit
charging-action ca22
  flow limit-for-bandwidth direction uplink peak-data-rate 1000000 peak-burst-size 100
violate-action discard
  flow limit-for-bandwidth direction downlink peak-data-rate 1000000 peak-burst-size 100
violate-action discard
exit
charging-action ca23
  flow limit-for-bandwidth direction uplink peak-data-rate 1000000 peak-burst-size 100
violate-action discard
  flow limit-for-bandwidth direction downlink peak-data-rate 1000000 peak-burst-size 100
violate-action discard
exit
charging-action ca3
  allocation-retention-priority 14 pci NOT_PREEMPT pvi NOT_PREEMPTABLE
    flow limit-for-bandwidth direction uplink peak-data-rate 2000000 peak-burst-size 100
  violate-action discard committedDataRate 1000000 committed-burst-size 100 exceed-action
discard
  flow limit-for-bandwidth direction downlink peak-data-rate 4000000 peak-burst-size 100
  violate-action discard committedDataRate 3000000 committed-burst-size 100 exceed-action
discard
  qos-class-identifier 1
  tft-notify-ue
  tos af11
  tft packet-filter pkt3
exit
charging-action ca4
  allocation-retention-priority 11 pci NOT_PREEMPT pvi NOT_PREEMPTABLE
    flow limit-for-bandwidth direction uplink peak-data-rate 2000000 peak-burst-size 100
  violate-action discard committedDataRate 3000000 committed-burst-size 100 exceed-action
discard
  flow limit-for-bandwidth direction downlink peak-data-rate 4000000 peak-burst-size 100
  violate-action discard committedDataRate 4000000 committed-burst-size 100 exceed-action
discard
  qos-class-identifier 4
  tft-notify-ue
  tos af11
  tft packet-filter pkt1
exit
charging-action ca5
  allocation-retention-priority 11 pci NOT_PREEMPT pvi NOT_PREEMPTABLE
    flow limit-for-bandwidth direction uplink peak-data-rate 2000000 peak-burst-size 100
  violate-action discard committedDataRate 3000000 committed-burst-size 100 exceed-action
discard
  flow limit-for-bandwidth direction downlink peak-data-rate 4000000 peak-burst-size 100
  violate-action discard committedDataRate 4000000 committed-burst-size 100 exceed-action
discard
  qos-class-identifier 4
  tft-notify-ue
  tos af11
  tft packet-filter pkt2
exit
charging-action ca6
  allocation-retention-priority 11 pci NOT_PREEMPT pvi NOT_PREEMPTABLE
    flow limit-for-bandwidth direction uplink peak-data-rate 2000000 peak-burst-size 100

```

```
violate-action discard committedDataRate 3000000 committed-burst-size 100 exceed-action
discard
    flow limit-for-bandwidth direction downlink peak-data-rate 4000000 peak-burst-size 100
violate-action discard committedDataRate 4000000 committed-burst-size 100 exceed-action
discard
    qos-class-identifier 4
    tft-notify-ue
    tos af11
    tft packet-filter pkt3
exit
charging-action ca7
    allocation-retention-priority 1 pci NOT_PREEMPT pvi NOT_PREEMPTABLE
    flow limit-for-bandwidth direction uplink peak-data-rate 2000000 peak-burst-size 100
violate-action discard
    flow limit-for-bandwidth direction downlink peak-data-rate 400000 peak-burst-size 100
violate-action discard
    qos-class-identifier 7
    tft-notify-ue
    tos af11
exit
charging-action caGyGz
    billing-action egcdr
    cca charging credit rating-group 102
    content-id      102
    service-identifier 202
exit
charging-action caOffline
    billing-action egcdr
    content-id      100
    service-identifier 200
exit
charging-action caOffline1
    billing-action egcdr
    content-id      11
    service-identifier 21
exit
charging-action caOffline2
    billing-action egcdr
    content-id      12
    service-identifier 22
exit
charging-action caOffline3
    billing-action egcdr
    content-id      13
    service-identifier 23
exit
charging-action caOffline4
    billing-action egcdr
    content-id      40
exit
charging-action caOfflineOnline
    billing-action egcdr
    cca charging credit
    content-id      30
    service-identifier 60
exit
charging-action caOfflineOnline1
    billing-action egcdr
    cca charging credit
    content-id      31
    service-identifier 61
exit
charging-action caOnline
    cca charging credit rating-group 100
```

Sample Configuration

```

content-id      100
service-identifier 200
exit
charging-action caOnline1
  cca charging credit rating-group 101
  content-id      101
  service-identifier 201
exit
charging-action caOnline2
  cca charging credit
  content-id      102
  service-identifier 202
exit
charging-action caOnline3
  cca charging credit
  content-id      103
  service-identifier 203
exit
charging-action caOnline4
  cca charging credit
  content-id 110
exit
charging-action nocharging
exit
rulebase cbn#spp-tmobile
  action priority 1 ruledef crn#test_1 charging-action ca1
  action priority 2 ruledef crn#test_2 charging-action ca2
exit
rulebase rba1
  action priority 1 dynamic-only ruledef rda1 charging-action ca1 description myrule1
  action priority 2 dynamic-only ruledef rda2 charging-action ca2 description myrule2
  action priority 3 dynamic-only ruledef rda3 charging-action ca3 description myrule3
exit
rulebase rba2
  action priority 10 ruledef rda10 charging-action ca10 description myrule10
  action priority 11 ruledef rdall1 charging-action call description myrule11
  action priority 12 dynamic-only ruledef rda12 charging-action ca12 description myrule12
  action priority 13 dynamic-only ruledef rda13 charging-action ca13 description myrule13
exit
rulebase rba3
  action priority 20 ruledef rda20 charging-action ca20 description myrule20
  action priority 21 ruledef rda21 charging-action ca21 description myrule21
  action priority 22 dynamic-only ruledef rda22 charging-action ca22 description myrule22
  action priority 23 dynamic-only ruledef rda23 charging-action ca23 description myrule23
exit
rulebase rba4
  action priority 30 ruledef rda3 charging-action ca3 description myrule3
  action priority 31 dynamic-only ruledef rda3 charging-action ca3 description myrule3
exit
rulebase rba5
  action priority 50 dynamic-only ruledef rda50 charging-action ca4 description myrule50
  action priority 51 dynamic-only ruledef rda51 charging-action ca5 description myrule51
  action priority 52 dynamic-only ruledef rda52 charging-action ca6 description myrule52
exit
rulebase rba6
  action priority 60 dynamic-only ruledef rda60 charging-action ca1 description myrule60
  action priority 61 dynamic-only ruledef rda61 charging-action ca1 description myrule61
  action priority 62 dynamic-only ruledef rda62 charging-action ca1 description myrule62
exit
rulebase rba7
  action priority 50 ruledef rda50 charging-action ca4 description myrule50
  action priority 51 ruledef rda51 charging-action ca5 description myrule51
  action priority 52 ruledef rda52 charging-action ca6 description myrule52
exit

```

```

rulebase rba8
  action priority 60 ruledef rda60 charging-action cal description myrule60
  action priority 61 ruledef rda61 charging-action cal description myrule61
  action priority 62 ruledef rda62 charging-action cal description myrule62
exit
rulebase rbaStatic
  action priority 10 ruledef rda20 charging-action caOffline
exit
rulebase rbaStatic-Online
  action priority 20 ruledef rdaStatic charging-action caOnline
exit
rulebase rbaStatic1
  action priority 10 ruledef rda20 charging-action caOffline
exit
rulebase rba_GyGz
  egcdr threshold volume downlink 100000 uplink 100000
  action priority 20 dynamic-only ruledef rdaPredefined charging-action caGyGz
  action priority 30 ruledef rda20 charging-action caGyGz
exit
rulebase rba_charging_StaticDynamic_Offline_Online_mix
  cca diameter requested-service-unit sub-avp volume cc-input-octets 11000 cc-output-octets
12000 cc-total-octets 23000
  credit-control-group onlineoffline
  egcdr threshold interval 100
  egcdr threshold volume downlink 150000 uplink 150000 total 300000
  action priority 20 dynamic-only ruledef rdaPredefined charging-action caOffline1
  action priority 21 dynamic-only ruledef rdaPredefined1 charging-action caOnline1
  action priority 31 ruledef rdaStatic charging-action caOfflineOnline
exit
rulebase rba_charging_StaticDynamic_offline
  egcdr threshold volume downlink 100000 uplink 100000
  action priority 20 dynamic-only ruledef rdaPredefined charging-action caOffline1
  action priority 30 ruledef rda20 charging-action caOffline
exit
rulebase rba_charging_StaticDynamic_online
  action priority 20 ruledef rda20 charging-action caOnline
  action priority 30 dynamic-only ruledef rdaPredefined charging-action caOnline1
exit
rulebase rbs1
  action priority 1 ruledef rds1 charging-action cal description myrules1
  action priority 2 ruledef rds2 charging-action ca2 description myrules2
exit
urr-list urr_smf
  rating-group 10 service-identifier 20 urr-id 1
  rating-group 11 service-identifier 21 urr-id 2
  rating-group 12 service-identifier 22 urr-id 3
  rating-group 13 service-identifier 23 urr-id 4
  rating-group 30 service-identifier 60 urr-id 20
  rating-group 31 service-identifier 61 urr-id 21
  rating-group 100 service-identifier 200 urr-id 5
  rating-group 101 service-identifier 201 urr-id 6
  rating-group 102 service-identifier 202 urr-id 7
  rating-group 103 service-identifier 203 urr-id 8
exit
ruledef rda1
  ip server-ip-address = 10.10.10.10
exit
ruledef rda10
  ip any-match = TRUE
exit
ruledef rda11
  ip any-match = TRUE
exit
ruledef rda12

```

Sample Configuration

```
ip any-match = TRUE
exit
ruledef rda13
    ip any-match = TRUE
exit
ruledef rda2
    ip server-ip-address = 10.165.161.77/32
exit
ruledef rda20
    ip any-match = TRUE
exit
ruledef rda21
    ip any-match = TRUE
exit
ruledef rda22
    ip any-match = TRUE
exit
ruledef rda23
    ip any-match = TRUE
exit
ruledef rda3
    ip server-ip-address = 10.198.87.48/28
exit
ruledef rda40
    ip any-match = TRUE
exit
ruledef rda50
    ip server-ip-address = 50.50.50.50
exit
ruledef rda51
    ip server-ip-address = 51.51.51.51
exit
ruledef rda52
    ip server-ip-address = 52.52.52.52
exit
ruledef rda60
    ip dst-address = 60.60.60.60
exit
ruledef rda61
    ip dst-address = 61.61.61.61
exit
ruledef rda62
    ip dst-address = 62.62.62.62
exit
ruledef rdaPredefined
    ip any-match = TRUE
exit
ruledef rdaStatic
    ip any-match = TRUE
exit
ruledef rdaStatic1
    ip any-match = TRUE
exit
ruledef rdaStatic2
    ip any-match = TRUE
exit
ruledef rds1
    ip any-match = TRUE
exit
ruledef rds2
    ip any-match = TRUE
exit
credit-control group onlineoffline
diameter ignore-service-id true
```

```
exit
exit
apn intershat
  gtpp group group1
    active-charging rulebase rbal
  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
aaa authentication users user admin
  uid      117
  gid      1117
  password $1$cRyjDAuU$7t8iCDDjhDcKdQ1/YHM2J1
  ssh_keydir /tmp/admin/.ssh
  homedir   /tmp/admin
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
nacm write-default deny
nacm groups group admin
  user-name [ admin ]
exit
nacm rule-list admin
  group [ admin ]
  rule any-access
    action permit
  exit
exit
nacm rule-list confd-api-manager
  group [ confd-api-manager ]
  rule any-access
    action permit
  exit
exit
```

