Sample PCF Configuration

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Sample Configuration File

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.

Important The mandatory parameters are required to ensure that the critical pods such as CRD and Policy Engine are in the running state.

```
config
datastore primary-endpoint connection-settings keep-alive keep-alive-time-ms 200
datastore primary-endpoint connection-settings channel count 4
datastore primary-endpoint connection-settings timeout-ms 500
datastore external-endpoints datastore
 connection-settings keep-alive keep-alive-time-ms 200
 connection-settings channel count 3
 connection-settings timeout-ms 500
exit
ldap replicas 2
ldap server-set USD
 search-user dn cn=sdcUser,dc=C-NTDB
 search-user password $8$yx0jELXTK0f7CJO2XklpJx+CpCUIX13B9C5oQ4NEnaI=
 health-check interval-ms 5000
 health-check dn cn=sdcUser,dc=C-NTDB
 health-check filter msisdn=918369110173
 health-check attributes napCustType
 initial-connections                              10
 max-connections                                  10
 retry-count                                      2
 retry-timer-ms                                   100
 max-failover-connection-age-ms                   60000
 binds-per-second                                 0.2
 number-consecutive-timeouts-for-bad-connection -1
 missing-attribute-result-code                    32
 connection 192.0.2.18 389
  priority        400
  connection-rule ROUND_ROBIN
  auto-reconnect  true
  timeout-ms      200
```

```
  bind-timeout-ms 3000
 exit
 connection 192.0.2.18 390
  priority        400
  connection-rule ROUND_ROBIN
  auto-reconnect  true
  timeout-ms      200
  bind-timeout-ms 3000
 exit
 connection 192.0.2.18 391
  priority        400
  connection-rule ROUND_ROBIN
  auto-reconnect  true
  timeout-ms      200
  bind-timeout-ms 3000
 exit
exit
//This is a mandatory parameter
db global-settings db-replica 3
//This is a mandatory parameter
db global-settings volume-storage-class local
db spr shard-count 1
db balance shard-count 1
debug tracing type DISABLED
debug logging default-level error
debug logging logger com.broadhop
 level warn
exit
debug logging logger com.broadhop.custrefdata.impl.dao.GenericDao
 level error
exit
debug logging logger com.broadhop.diameter2.policy.endpoints
 level error
exit
debug logging logger com.broadhop.ldap
 level error
exit
debug logging logger com.broadhop.microservices.control
 level error
exit
debug logging logger com.broadhop.utilities.queue.redis
 level error
exit
debug logging logger com.cisco
 level warn
exit
debug logging logger com.cisco.diameter
 level error
exit
debug logging logger com.cisco.diameter.endpoint
 level error
exit
debug logging logger com.cisco.pcf
 level debug
exit
debug logging logger com.cisco.pcf.endpoint.client
 level error

exit
debug logging logger com.cisco.pcf.endpoint.client.Http2JettyRequestAsync
 level error
exit
debug logging logger com.cisco.pcf.ldapserver
 level warn
```

```
exit
debug logging logger com.cisco.pcf.nf.cache.NfCache
 level warn
exit
debug logging logger io.prometheus.client
 level error
exit
debug logging logger policy.engine
 level debug
exit
debug logging logger rest.message
 level warn
exit
features patching ingress-enabled true
diameter settings timeouts-ms dpa 5000
diameter application rx
 application-id   16777236
 tgpp-application true
 vendor           [ 10415 ]
exit
diameter group rx-protocol-1
 mode server
 stack rx-protocol-1
  application rx
  replicas    2
  bind-ip      192.0.2.19
  bind-port   3868
  fqdn        pcf-rx-server-1
  realm       pcf.rx.server.cisco.com
  settings timeouts-ms request 5000
 exit
exit
ldap-server-endpoint connect bind-ip  192.0.2.20
ldap-server-endpoint connect binddn cn=plfuser
ldap-server-endpoint connect password $8$1eiow0TCw8sMRzP8czGABoog5Y1DxrD49EGWVmw3PoI=
ldap-server-endpoint connect port 1399
ldap-server-endpoint connect request-timeout 5000
ldap-server-endpoint connect replicas 2
ldap-server-endpoint connect max-transactions 200
ldap-server-endpoint health-check-filter name msisdn
ldap-server-endpoint health-check-filter value 11110100000
ldap-server-endpoint input-mapping framedipaddress
 internal-lookup-key IP_ADDRESS
exit
ldap-server-endpoint input-mapping imsi
 internal-lookup-key IMSI
exit
ldap-server-endpoint input-mapping msisdn
 internal-lookup-key MSISDN
exit
ldap-server-endpoint output-mapping ACCESS_TYPE
 input accessType
exit
ldap-server-endpoint output-mapping RAT_TYPE
 input ratType
exit
ldap-server-endpoint output-mapping calledstationid
 input dnn
exit
ldap-server-endpoint output-mapping callingstationid
 input msisdn
exit
ldap-server-endpoint output-mapping framedipv4
 input framedIp
```

```
exit
ldap-server-endpoint output-mapping framedipv6
 input framedIpv6Prefix
exit
ldap-server-endpoint output-mapping imsi
 input supi
exit
ldap-server-endpoint output-mapping offline_charging
 input offline
exit
ldap-server-endpoint output-mapping online_charging
 input online
exit
ldap-server-endpoint health-check-attributes msisdn
 value 11110100000
exit
//This is a mandatory parameter
rest-endpoint port   9082
rest-endpoint tracing-service-name pcf-rest-endpoint
rest-endpoint replicas 2
rest-endpoint interface n28
 ip [  192.0.3.20 ]
exit
rest-endpoint interface n7
 ip [  192.0.3.21 ]
exit
rest-endpoint interface n15
 ip   [ 10.102.3.218 ]
 port 9082
exit
rest-endpoint interface nnrf
 ip                          [  192.0.2.22 ]
 outbound-request-timeout-ms 500
exit
advance-tuning http2-threading min-thread-pool-size 10
advance-tuning http2-threading max-thread-pool-size 25
advance-tuning http2-threading disable-validation false
advance-tuning overload-control rest global limits max-requests-per-sec 9000
advance-tuning overload-control rest global action throttle-action REJECT
advance-tuning overload-control rest global action throttle-action N7_CREATE discard-action
 DROP threshold-count 3500

advance-tuning overload-control rest global action throttle-action N7_CREATE discard-action
 REJECT threshold-count 2000

advance-tuning overload-control diameter global limits max-requests-per-sec 9000
advance-tuning overload-control diameter global action throttle-action DROP
advance-tuning async-threading default-worker-threads 20
advance-tuning async-threading default-queue-size 100
advance-tuning async-threading default-processing-threads 20
advance-tuning async-threading http2-connect-timeout-ms 120
api unified engine-group pcf01production
//This is a mandatory parameter
api unified externalIPs [  192.0.2.23 ]
//This is a mandatory parameter
api unified external-port 8080
//This is a mandatory parameter
engine pcf01production
//This is a mandatory parameter
 replicas              2
//This is a mandatory parameter
 subversion-run-url    http://svn/repos/run
//This is a mandatory parameter
 subversion-config-url http://svn/repos/configuration
```

```
//This is a mandatory parameter
 tracing-service-name  pcf-engine
 properties broadcast.tps
  value 100
 exit
 properties ldap.retry.time.ms
  value 200
 exit
 properties loopback.delay
  value 20
 exit
 properties pcf.actions.sync.timeoutMs.default
  value 410
 exit
 properties useZlibCompression
  value true
 exit
 properties virtualservice.cache.enabled
  value true
 exit
 properties virtualservice.evaluate.defaultvs
  value true
 exit
 properties warmup.message.count
  value 20
 exitexit
label protocol-layer key smi.cisco.com/node-type-2
label protocol-layer value protocol
label service-layer key smi.cisco.com/node-type-3
label service-layer value service
label cdl-layer key smi.cisco.com/node-type-4
label cdl-layer value session
label oam-layer key smi.cisco.com/node-type
label oam-layer value oam
external-services datastore
 ips   [  192.0.2.24 ]
 ports [ 8882 ]
exit
profile nf-client nf-type udr
 udr-profile local-udr
  locality localudr
   priority 10000
   service name type nudr-dr
    endpoint-profile udr_profile_1
     capacity   10
     priority   30
     uri-scheme http
     version
      uri-version v2
      exit
     exit
     endpoint-name udr_ep1
      primary ip-address ipv4 10.102.4.151
      primary ip-address port 5182
     exit
    exit
    endpoint-profile udr_profile_2
     capacity   10
     priority   30
     uri-scheme http
     version
      uri-version v2
      exit
     exit
```

```
      endpoint-name udr_ep1
       primary ip-address ipv4 10.102.4.151
       primary ip-address port 5183
      exit
     exit
     endpoint-profile udr_profile_3
      capacity   10
      priority   30
      uri-scheme http
      version
       uri-version v2
       exit
     exit
      endpoint-name udr_ep1
       primary ip-address ipv4 10.102.4.151
       primary ip-address port 5184
      exit
     exit
    exit
   exit
  exit
exit
profile nf-client nf-type chf
 chf-profile local-chf
  locality localchf
   priority 10000
   service name type nchf-spendinglimitcontrol
    endpoint-profile chf_profile_1
     capacity   50
     priority   30
     uri-scheme http
     version
      uri-version v1
      exit
     exit
     endpoint-name chf_ep1
      primary ip-address ipv4 10.102.1.151
      primary ip-address port 5082
     exit
    exit
    endpoint-profile chf_profile_2
     capacity   50
     priority   30
     uri-scheme http
     version
      uri-version v1
      exit
     exit
     endpoint-name chf_ep1
      primary ip-address ipv4 10.102.1.151
      primary ip-address port 5083
     exit
    exit
    endpoint-profile chf_profile_3
     capacity   50
     priority   30
     uri-scheme http
     version
      uri-version v1
      exit
     exit
     endpoint-name chf_ep1
      primary ip-address ipv4 10.102.1.151
      primary ip-address port 5084
```

```
     exit
    exit
   exit
  exit
 exit
exit
profile nf-pair nf-type UDR
 nrf-discovery-group    nrf-discovery-group
 subscription-enabled   true
 subscription-extension 3
 locality client  pcf01
 locality preferred-server loc1
 locality geo-server loc2
exit
profile nf-pair nf-type CHF
 nrf-discovery-group    nrf-discovery-group
 subscription-enabled   true
 subscription-extension 3
 locality client  pcf01
 locality preferred-server loc1
 locality geo-server loc2
exit
service-registration services amfService
exit
service-registration services smfService
exit
//This is a mandatory parameter
service-registration profile locality pcf01
//This is a mandatory parameter
service-registration profile capacity 20
//This is a mandatory parameter
service-registration profile priority 10
//This is a mandatory parameter
service-registration profile nf-status REGISTERED
//This is a mandatory parameter
service-registration profile plmn-list 100 010
exit
//This is a mandatory parameter
service-registration profile snssais
//This is a mandatory parameter
1 sd ABCDEF
exit
group nf-mgmt nf-mgmt-grpup
 nrf-mgmt-group nrf-register-group
 locality       pcf01
 failover sla 1200
 reconnect interval 100
exit
group nrf discovery nrf-discovery-group
 service type nrf nnrf-disc
  endpoint-profile nrf_disc_profile_1
   capacity   10
   priority   10
   uri-scheme http
   version
    uri-version v1
    exit
   exit
   endpoint-name nrf_disc_ep1
    priority 1
    capacity 10
    primary ip-address ipv4 192.0.2.26
    primary ip-address port 8183
    secondary ip-address ipv4 192.0.2.19
```

```
    secondary ip-address port 8184
    tertiary ip-address ipv4 192.0.2.15
    tertiary ip-address port 8185
   exit
  exit
 exit
exit
group nrf mgmt nrf-register-group
 service type nrf nnrf-nfm
  endpoint-profile nrf_regi_profile_1
   capacity   10
   priority   10
   uri-scheme http
   version
    uri-version v1
    exit
   exit
   endpoint-name nrf_regi_ep1
    priority 1
    capacity 10
    primary ip-address ipv4 192.0.1.15
    primary ip-address port 8183
    secondary ip-address ipv4 192.0.3.15
    secondary ip-address port 8184
    tertiary ip-address ipv4 192.0.2.12
    tertiary ip-address port 8185
   exit
  exit
 exit
exit
cdl system-id          1
cdl node-type          session
cdl enable-geo-replication true
cdl zookeeper data-storage-size 1
cdl zookeeper log-storage-size 1
cdl zookeeper replica 3
cdl remote-site 2
 db-endpoint host  192.0.2.24
 db-endpoint port 8882
 kafka-server 19.102.11.108 10091
 exit
 kafka-server 19.102.11.109 10092
 exit
 kafka-server 19.102.11.110 10093
 exit
exit
cdl label-config session
 endpoint key smi.cisco.com/node-type-4
 endpoint value session
 slot map 1
  key   smi.cisco.com/node-type-4
  value session
 exit
 slot map 2
  key   smi.cisco.com/node-type-4
  value session
 exit
 slot map 3
  key   smi.cisco.com/node-type-4
  value session
 exit
 slot map 4
  key   smi.cisco.com/node-type-4
  value session
```

```
 exit
 index map 1
  key   smi.cisco.com/node-type-4
  value session
 exit
 index map 2
  key   smi.cisco.com/node-type-4
  value session
 exit
exit
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
 cluster-id      1
 label-config    session
 geo-remote-site [ 2 ]
 endpoint replica 2
 endpoint external-ip 10.102.11.218
 index replica 2
 index map 2
 slot replica 2
 slot map 4
 slot notification limit 25
exit
cdl kafka replica 3
cdl kafka storage 1
cdl kafka label-config key smi.cisco.com/node-type-4
cdl kafka label-config value session
cdl kafka external-ip 10.102.11.104 10091
exit
cdl kafka external-ip 10.102.11.105 10092
exit
cdl kafka external-ip 10.102.11.106 10093
exit
system mode running
helm default-repository base-repos
helm repository base-repos
 url https://charts.10.100.11.107.nip.io/pcf.2020.05.m0.i33
exit
k8s name          cl-hawaii-s1
k8s namespace     pcf-pcf-hawaii-s1
k8s nf-name       pcf
k8s registry      docker.10.100.11.107.nip.io/pcf.2020.05.m0.i26
k8s single-node   false
k8s use-volume-claims true
k8s ingress-host-name 10.84.102.200.nip.io
k8s nodes cl-hawaii-s1-master-1
 node-type   master
 worker-type master
exit
k8s nodes cl-hawaii-s1-master-2
 node-type   master
 worker-type master
exit
k8s nodes cl-hawaii-s1-master-3
 node-type   master
 worker-type master
```

```
exit
aaa authentication users user admin
 uid        1117
 gid        1117
 password   $1$ywmCvRqU$e1ho7HLAmgfQS5LT9HAXQ.
 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
exit
nacm write-default deny
nacm groups group admin
 user-name [ admin ]
exit
nacm groups group policy-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
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
```