

# 排除SMF錯誤日誌故障"；所有對等體都為Dead"

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## 簡介

本文說明如何對與下列有關的會話管理功能(SMF)日誌警報進行故障排除：**All Peers are Dead, Setting status code to 0.**

## 問題

SMF上報告了會話影響。

## 分析

### 記錄所有對等體已停用

日誌指示SelectedProfileName:CHF-OFF中的所有對等體已停用。

日誌涵蓋SMF上配置的所有端點，當您每次看到所有對等體都死在配置檔案內時，就會導致會話影響。

<#root>

```
master-1 b26897bce81a[2516]:
master-1 c77834f772f7[2516]: ***** TRANSACTION: 2475167152 *****
master-1 c77834f772f7[2516]: ***** TRANSACTION: 2475167152 *****
master-1 c77834f772f7[2516]: TRANSACTION SUCCESS:
master-1 c77834f772f7[2516]: TRANSACTION SUCCESS:
master-1 c77834f772f7[2516]: GR Instance ID : 1
master-1 c77834f772f7[2516]: GR Instance ID : 1
master-1 c77834f772f7[2516]: Txn Type : N40ChargingDataReq(3585)
master-1 c77834f772f7[2516]: Txn Type : N40ChargingDataReq(3585)
master-1 c77834f772f7[2516]: Priority : 1
master-1 c77834f772f7[2516]: Priority : 1
master-1 c77834f772f7[2516]: Session Namespace : smf(1)
master-1 c77834f772f7[2516]: Session Namespace : smf(1)
```

```

master-1 c77834f772f7[2516]: CDL Slice Name : smf
master-1 c77834f772f7[2516]: CDL Slice Name : smf
master-1 c77834f772f7[2516]: LOG MESSAGES:
master-1 c77834f772f7[2516]: LOG MESSAGES:
master-1 c77834f772f7[2516]: 2023/09/10 15:00:00.007 [ERROR] [nrFClient.Discovery.nrf]

```

All Peers are Dead, Setting status code to 0

(timeout)

```

master-1 c77834f772f7[2516]: 2023/09/10 15:00:00.007 [ERROR] [nrFClient.Discovery.nrf]

```

All Peers are Dead, Setting status code to 0

(timeout)

```

master-1 c77834f772f7[2516]: 2023/09/10 15:00:00.007 [ERROR] [nrFClient.Discovery.nrf] Message send fai
master-1 c77834f772f7[2516]: 2023/09/10 15:00:00.007 [ERROR] [nrFClient.Discovery.nrf] Message send fai
master-1 c77834f772f7[2516]: *****
master-1 c77834f772f7[2516]: *****

```

根據組態，SMF會嘗試在存在HTTP代碼504 (逾時) 系統時到達優先順序較高的主伺服器，然後SMF嘗試到達輔助伺服器。如果操作失敗，那麼系統也會將會話設定為繼續模式。

在本示例中，「離線」的輔助計費功能(CHF)是10.10.10.2。SMF收到504錯誤，操作為FailureContinueAction。

<#root>

```

master-2 42013075464a[2621]: 2023/09/10 15:00:00.063 rest-ep [ERROR] [RestClient.go:175] [infra.rest_c
master-2 42013075464a[2621]: 2023/09/10 15:00:00.063 rest-ep [ERROR] [Config.go:1721] [nrFClient.Discov
master-2 42013075464a[2621]: ***** TRANSACTION: 2252879781 *****
master-2 42013075464a[2621]: TRANSACTION SUCCESS:
master-2 42013075464a[2621]: GR Instance ID : 1
master-2 42013075464a[2621]: Txn Type : N40ChargingDataReq(3521)
master-2 42013075464a[2621]: Priority : 1
master-2 42013075464a[2621]: Session Namespace : smf(1)
master-2 42013075464a[2621]: CDL Slice Name : smf
master-2 42013075464a[2621]: LOG MESSAGES:
master-2 42013075464a[2621]: 2023/09/10 15:00:00.063 [ERROR] [rest_ep.app.ChargingIntf] {imsi-123456789
master-2 42013075464a[2621]: 2023/09/10 15:00:00.063 [ERROR] [nrFClient.SendMesg.NRF] FHI status

```

504

```

timediff 1000332537, Uri: http://10.10.10.2:1090/OFFLINE/nchf-convergedcharging/v2, retryCount = 0 loo
master-2 42013075464a[2621]: 2023/09/10 15:00:00.063 [ERROR] [nrFClient.Discovery.nrf] Message send fai
master-2 42013075464a[2621]: *****

```

## SMF檢查

在SMF上，檢查對等體以及它們與報告問題的終結點的連線時間。

```

smf# show peers
GR
INSTANCE  ENDPOINT          LOCAL ADDRESS      PEER ADDRESS      DIRECTION  POD
-----
INSTANCE  INSTANCE  TYPE  TIME

```

1	<none>	192.168.1.1	10.10.10.2:1090	Outbound	rest-ep-0	Rest	4 hour
1	<none>	192.168.1.2	10.10.10.2:1090	Outbound	rest-ep-1	Rest	4 hour
1	<none>	192.168.1.3	10.10.10.1:1090	Outbound	rest-ep-2	Rest	4 hours
1	<none>	192.168.1.3	10.10.10.2:1090	Outbound	rest-ep-2	Rest	4 hour
1	<none>	192.168.1.4	10.10.10.1:1090	Outbound	rest-ep-3	Rest	4 hours
1	<none>	192.168.1.2	10.10.10.1:1090	Outbound	rest-ep-1	Rest	4 hours
1	<none>	192.168.1.4	10.10.10.2:1090	Outbound	rest-ep-3	Rest	2 hour
1	<none>	192.168.1.1	10.10.10.1:1090	Outbound	rest-ep-0	Rest	4 hours

// CHF related profiles

```
profile network-element chf CHF-OFFLINE
  nf-client-profile      CHF-OFF
  failure-handling-profile Fail-H-CHF-OFF
  discovery local
exit
```

// Here is configuration for CHF profile where all peers are dead

```
profile nf-client nf-type chf
  chf-profile CHF-OFF
  locality LOC1
  priority 1
  service name type nchf-convergedcharging
  responsetimeout 1000
  endpoint-profile epprof
  capacity 10
  api-root OFFLINE
  uri-scheme http
  version
  uri-version v2
  exit
  endpoint-name ep1
  priority 1
  capacity 10
  primary ip-address ipv4 10.10.10.1
  primary ip-address port 1090
  exit
  endpoint-name ep2
  priority 2
  capacity 10
  primary ip-address ipv4 10.10.10.2
  primary ip-address port 1090
  exit
  exit
  exit
  exit
```

// Failure handling that in case of timeout (HTTP code 504) then try secondary server one time and then

```
profile nf-client-failure nf-type chf
  profile failure-handling Fail-H-CHF-OFF
  service name type nchf-convergedcharging
  responsetimeout 1000
  message type ChfConvergedchargingCreate
  status-code httpv2 504
  retry 1
```

```

    action continue
  exit
exit
message type ChfConvergedchargingUpdate
  status-code httpv2 504
  retry 1
  action continue
  exit
exit
message type ChfConvergedchargingDelete
  status-code httpv2 504
  retry 1
  action continue
  exit
exit
exit

```

## Grafana檢查

已觀察HTTP 504逾時與問題時間之間的直接關聯。

query: sum(increase(smf\_restep\_http\_msg\_total{nf\_type="chf", namespace=~"\$namespace"}[15m])) by (api\_name)



## Nexus檢查

檢查是否發生任何翻動。

```
Nexus# show logging last 500 | include BFD
```

## 解決方案

此問題的解決方案在此情況下會有所不同，因為SMF是客戶端，CHF是伺服器。

連線丟失不是由SMF引起的。

## 關於此翻譯

思科已使用電腦和人工技術翻譯本文件，讓全世界的使用者能夠以自己的語言理解支援內容。請注意，即使是最佳機器翻譯，也不如專業譯者翻譯的內容準確。Cisco Systems, Inc. 對這些翻譯的準確度概不負責，並建議一律查看原始英文文件（提供連結）。