T4000 S1 Setup Failure

Equipment: T4000
Version: BBU_V100R009C00SP060

1. Issue Description

eNB sctp established, but S1 setup failure, eNB sent s1 setup request, but MME sent
S1 setup failure with cause "unspecified".

	Source	Destination	Protocol	Length	physCellId	Sfn	Slot	Index	Info	GNB-C
:29.346609000 中国标准时间	10.154.2.227	192.168.14.158	S1AP	134					S1SetupRequest	
:29.348018000 中国标准时间	192.168.14.158	10.154.2.227	SCTP	66					SACK	
:30.346092000 中国标准时间	192.168.14.158	10.154.2.227	S1AP	86					S1SetupFailure [Misc-cause=unspecified]	
:30.346147000 中国标准时间	10.154.2.227	192.168.14.158	SCTP	66					SACK	
:30.733133000 中国标准时间	10.154.2.227	10.169.250.114	SCTP	86					INIT	
:32.433319000 中国标准时间	10.154.2.227	192.168.14.158	S1AP	98					ENBConfigurationUpdate	
:32.924095000 中国标准时间	192.168.14.158	10.154.2.227	SCTP	66					SACK	
:33.738933000 中国标准时间	10.154.2.227	10.169.250.114	SCTP	86					INIT	
:33.843576000 中国标准时间	192.168.14.158	10.154.2.227	SCTP	146					HEARTBEAT	
:33.843629000 中国标准时间	10.154.2.227	192.168.14.158	SCTP	146					HEARTBEAT_ACK	
:37.340726000 中国标准时间	192.168.14.158	10.154.2.227	SCTP	146					HEARTBEAT	

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∨ ProtocolIE-Field
    id: id-Cause (2)
    criticality: ignore (1)
  ∨ value
    ∨ Cause: misc (4)
        misc: unspecified (4)
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2. Troubleshooting

a. Make sure sctp Heartbeat normal

From the capture sctp heartbeat is normal.

	Source	Destination	Protocol	Length		Info
06:33.843576000 中国标准时间	192.168.14.158	10.154.2.227	SCTP	146		HEARTBEAT
06:33.843629000 中国标准时间	10.154.2.227	192.168.14.158	SCTP	146		HEARTBEAT_ACK
06:37.340726000 中国标准时间	192.168.14.158	10.154.2.227	SCTP	146		HEARTBEAT
06:37.340792000 中国标准时间	10.154.2.227	192.168.14.158	SCTP	146		HEARTBEAT_ACK

b. Confirm S1 configuration correct

S1 setup request will attach the configured PLMN, TAC,ENB ID..etc

	Source	Destination	Protocol	Length	physCellId	Sfn	Slot	Index	Info	GNB-
中国标准时间	10.154.2.227	192.168.14.158	S1AP	134					S1SetupRequest	
中国标准时间	192.168.14.158	10.154.2.227	SCTP	66					SACK	
中国标准时间	192.168.14.158	10.154.2.227	S1AP	86					S1SetupFailure [Misc-cause=unspecified]	
中国标准时间	10.154.2.227	192.168.14.158	SCTP	66					SACK	

```
∨ Global-ENB-ID
    pLMNidentity: 52f099
    Mobile Country Code (MCC):                (250)
    Mobile Network Code (MNC):          (99)
  ∨ eNB-ID: macroENB-ID (0)
        macroENB-ID: 000d40 [bit length 20, 4 LSB pad bits, 0000 0000  0000 1101  0100 .... decimal value 212]
1: id-eNBname
rotocolIE-Field
2: id-SupportedTAs
rotocolIE-Field
id: id-SupportedTAs (64)
criticality: reject (0)
value
∨ SupportedTAs: 3 items
  ∨ Item 0
    ∨ SupportedTAs-Item
        tAC: 10 (0x000a)
```

Summary:

PLMN and TAC is configured as per radio plan, and not easy to make mistake.
ENB ID is also configured as per radio plan, but it's easy to be
conflicted.

3. Solution

Apply another unused eNB ID and cofigure to take affect. S1 setup succeed.