Troubleshoot Cellular Flaps due to Bearer Channel Deletion

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Introduction

This document describes the approach to troubleshoot the situation where the cellular IP continues to flap due to bearer channel deletion. Although, no impact is observed on the cellular performance, the cellular continues to get different IP addresses with an error message. This might give an impression that the cellular connection is unstable and at times might also cause slight delays in order to pass traffic.

Problem

Cellular interfaces can be used as a primary or backup connection. At times we might need a setup where we want the setup to be always up but the Internet Service Provider (ISP) might delete the bearer channel if it does not find any traffic that leads to continuos flaps of the cellular interfaces.

This is the error message that you will see:

"%CELLWAN-2-BEARER_DELETED: Instance id=0, Default bearer (bearer_id=5) in Cellular0 is now deleted. "

Though these cellular flaps do not cause the packet loss as the cellular connection is stable when the traffic is passed from the cellular, it might cause the monitoring tool to believe that the connection is unstable.

Solution

In order to avoid the situation, you can force the cellular to send some data continuously, and it forces the ISP to believe that there is continuos traffic and therefore the bearer channel should not be deleted. This can be done with the use of the IP Service Level Agreement (SLA) on the device with the use of this configuration:

```
ip sla 1
icmp-echo 10.1.1.1 source-interface Cellular <x>
frequency 5
exit

ip sla schedule 1 life forever start-time now
 track 234 ip sla 1 reachability .
```

Once this is done, you can see that the bearer channel deletion is not observed.

> **Note**: This process sends traffic continuously via the cellular interface and therefore you should take the data usage into consideration if there are any constraints on the data usage.