

# Motivation

BFD assumes low-latency and low-jitter links.

BUT,

- In trans-oceanic or satellite links, the link latency and jitter can be significant.
- In NGSO satellites (O3b, SpaceX, OneWeb) and mobile platforms, the latency can vary over time.

Continuous link performance measurement allows **automation** of tuning BFD intervals to **optimize** the detection interval



## **OPERATION**

Leverages the delay measurement method defined in RFC 6374

```
BFDP-AUTH-TYPE
     Auth Len
         |Version| Flags
Timestamp 1
    Timestamp 2
     Timestamp 3
       Timestamp 4
```



### Requesting WG adoption

#### Key benefits:

- Study tuning of BFD intervals based on link characteristics.
- Self-contained mechanism since measurement is within BFD without using extra frames.
- Some WAN links (satellite, specifically) are sensitive to amount of non billable traffic.

#### Unresolved issues:

- Overloaded BFD Auth Type. BFD v1 is not extendible.
- How the measured performance is translated to BFD interval is implementation specific
- 5880 does not define mechanisms for determining the intervals based on link characteristics.