

Information Elements for Short Timer

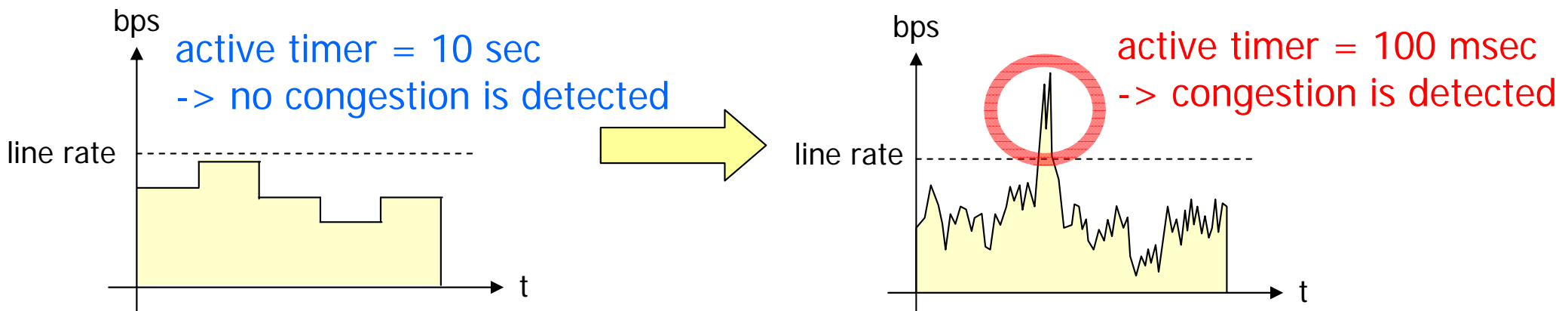
(draft-kashima-ipfix-short-timer-00)

Shingo Kashima

NTT Information Sharing Platform Laboratories

Motivation, Issue and Requirement

- In cloud networks, bursty traffic concentrates in Data Center. As a result, network operators take a care of packet discard by instantaneous traffic congestion.
- The time scale of traffic volume measurement with NetFlow and IF-MIB is from 1 sec to 300 sec. Therefore we can not detect bursty traffic.
 - NetFlow active timer is from 1 sec to 60 sec.
 - MRTG polling interval is 300 sec.
- We require active timer whose unit is smaller than “seconds” in order to measure traffic volume change in short time.



Existing Information Elements' Unit

- All kinds of Information Elements **except for flow timer** include unit which is smaller than “seconds”.
 - Flow Timer (IPFIX)
 - flowActiveTimeout: seconds
 - flowIdleTimeout: seconds
 - Flow Timestamps (IPFIX)
 - flowStartSeconds: seconds
 - flowEndSeconds: seconds
 - flowStartMilliseconds: milliseconds
 - flowEndMilliseconds: milliseconds
 - flowStartMicroseconds: microseconds
 - flowEndMicroseconds: microseconds
 - flowStartNanoseconds: nanoseconds
 - flowEndNanoseconds: nanoseconds
 - flowStartDeltaMicroseconds: microseconds
 - flowEndDeltaMicroseconds: microseconds
 - systemInitTimeMilliseconds: milliseconds
 - flowEndSysUpTime: milliseconds
 - flowStartSysUpTime: milliseconds
 - Flow Duration Time (IPFIX)
 - flowDurationMilliseconds: milliseconds
 - flowDurationMicroseconds: microseconds
 - Packet Timestamp (PSAMP)
 - observationTimeSeconds: seconds
 - observationTimeMilliseconds: milliseconds
 - observationTimeMicroseconds: microseconds
 - observationTimeNanoseconds: nanoseconds
 - Time-based Sampling Parameter (PSAMP)
 - samplingTimeInterval: microseconds
 - samplingTimeSpace: microseconds

New Information Elements

■ flowActiveTimeoutMilliseconds

- Description:
 - The number of **milliseconds** after which an active Flow is timed out anyway, even if there is still a continuous flow of packets.
- Abstract Data Type: unsigned16
- ElementId: TDB1
- Status: current
- **Units: milliseconds**

■ flowIdleTimeoutMilliseconds

- Description:
 - A Flow is considered to be timed out if no packets belonging to the Flow have been observed for the number of **milliseconds** specified by this field.
- Abstract Data Type: unsigned16
- ElementId: TDB1
- Status: current
- **Units: milliseconds**

Discussion

- **My goal is the registration of the relevant IEs to IANA.**

Thank You !
