TCP Information Fields in EDR

Feature Summary and Revision History

Summary Data

Applicable Product(s) or Functional Area	ECS
Applicable Platform(s)	• ASR 5500 • VPC-DI • VPC-SI
Feature Default	Disabled - Configuration Required
Related Changes in This Release	Not applicable
Related Documentation	• *ECS Administration Guide*

Revision History

Revision Details	Release
First Introduced.	21.21

Feature Description

When the data traffic with TCP starts for a subscriber attached to LTE network. Need to calculate and record time difference between control packets of TCP flow in EDR. Need to record the difference between following packets:

- SYN and SYN-ACK packet

• SYN-ACK and ACK packet

TCP Fast Open

TCP Fast Open (TFO) is an extension to speed up the opening of successive TCP connections between two endpoints. It works by using a TFO cookie (a TCP option), which is a cryptographic cookie stored on the client and set upon the initial connection with the server. When the client later reconnects, it sends the initial SYN packet along with the TFO cookie data to authenticate itself. If successful, the server may start sending data to the client even before the reception of the final ACK packet of the three-way handshake. Due to this RTT between SYN-ACK and ACK is calculated based on difference between SYN-ACK packet and first uplink ACK packet.

Configuring and Removing the TCP Information Fields

Configuring the TCP info Fields

Use the following CLI commands to configure the additional fields in the EDR. Make sure that all other EDR related configurations are present.

```
configure
   active-charging service service_name
      edr-format format_name
         rule-variable tcp syn_synack_rtt priority 3
         rule-variable tcp syn_synack_ack_rtt priority 4
         exit
```

Removing the TCP info fields

Use the following CLI commands to remove the additional fields in the EDR.

```
configure
   active-charging service service_name
      edr-format format_name
         no rule-variable tcp syn_synack_rtt priority 3
         no rule-variable tcp syn_synack_ack_rtt priority 4
         exit
```