

APPLICATION NOTES

SCALE YOUR MONITORING SYSTEM WITH CUBRO NETWORK PROBE

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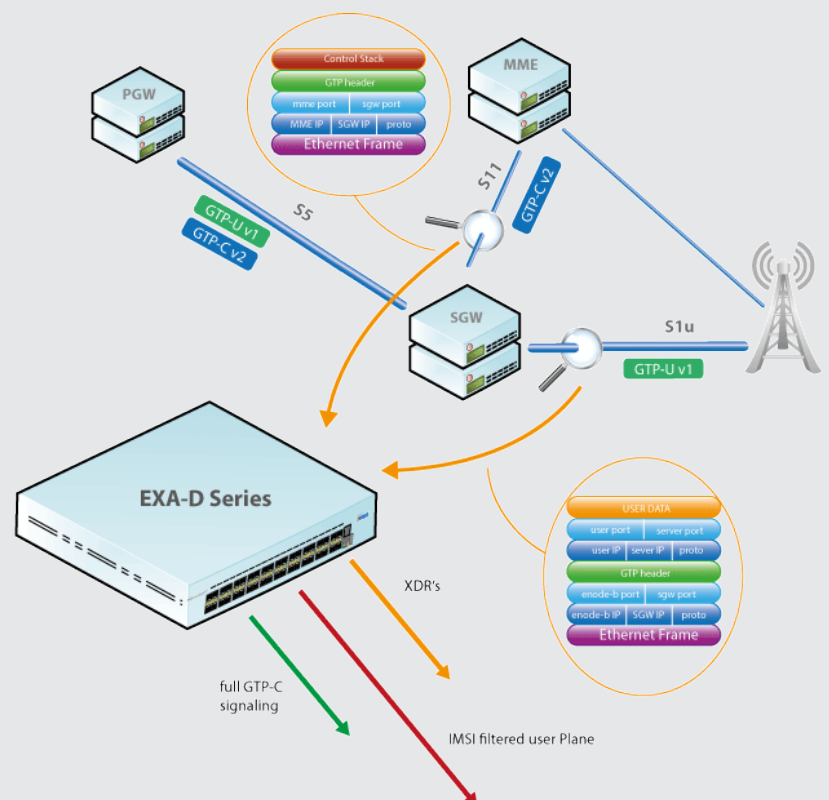
The Cubro Network Probe offers a solution to use your existing monitoring system even when your data traffic is growing exponentially. Service providers face the challenge due to the exploding network data. The data is required to monitor subscriber behaviour and application usage for resolving the customer problem. Multiple devices are required to accurately monitor each of the subscriber's data sessions to build an accurate picture of usage. The Cubro Probe enables monitoring system to scale by offloading and can perform several advanced applications required for subscriber aware end-to-end visibility.

Advantages of using Cubro Probe

- Reduces monitoring cost by offloading the existing monitoring system
- Results in lower Capex and Opex due to fewer hardware resources
- Availability of complete meta data of the user plane traffic

Cubro Probe provides these three different output options:

1. The XDR output provides the complete meta data of the user plane
2. The IMSI filtered output provides the full packet stream of several 100 or a few thousand IMSIs for a full L7 analysis
3. Full GTP-C output (Signaling only)



Cubro Probe Visibility Solutions

The three main challenges faced by a service provider include retention of existing subscribers, driving better product offerings to new subscribers and conducting centralized monitoring and troubleshooting of the network. Better visibility into the user network traffic leads to higher level of customer satisfaction. The increasing volume, velocity and variety of traffic can make the existing monitoring system incapable of handling the entire traffic. Therefore, Cubro Network Probe can help the service provider by offering monitoring system offload and providing these visibility solutions:

Separation of user plane and control plane and forwarding of control plane

- First, we separate signaling traffic and user traffic.
- The signaling traffic is forwarded to the existing monitoring system and is processed there.
- The load on the signaling is low and even when the user load is growing the load on the signaling does not grow in the same way. The signaling is more when there are more users and it is not related to the bandwidth.

IMSI filtering for user plane

- In the second step the user traffic can be filtered.
- To reduce the load, there are many options where we can filter - IMSI, IMEI, APN, Network Element Filtering, CELL ID and more.
- It is possible to filter on a million IMSIs per unit. This can be used to monitor only gold customers or to fully monitor on capture specific - IMSI for special purposes like lawful interception (LI) and deep packet inspection (DPI).

User plane XDR generation

- We can produce meta data XDRs for “all” user data traffic. These XDRs hold a matrix of relevant information coming from the network.
- These XDRs can be filtered to reduce the load.
- The interval of the XDRs can be configured per session and per time to deliver the needed granularity of the information. The XDR is an open format to support any database.