



# IMSI Filtering with Cubro Sessionmaster

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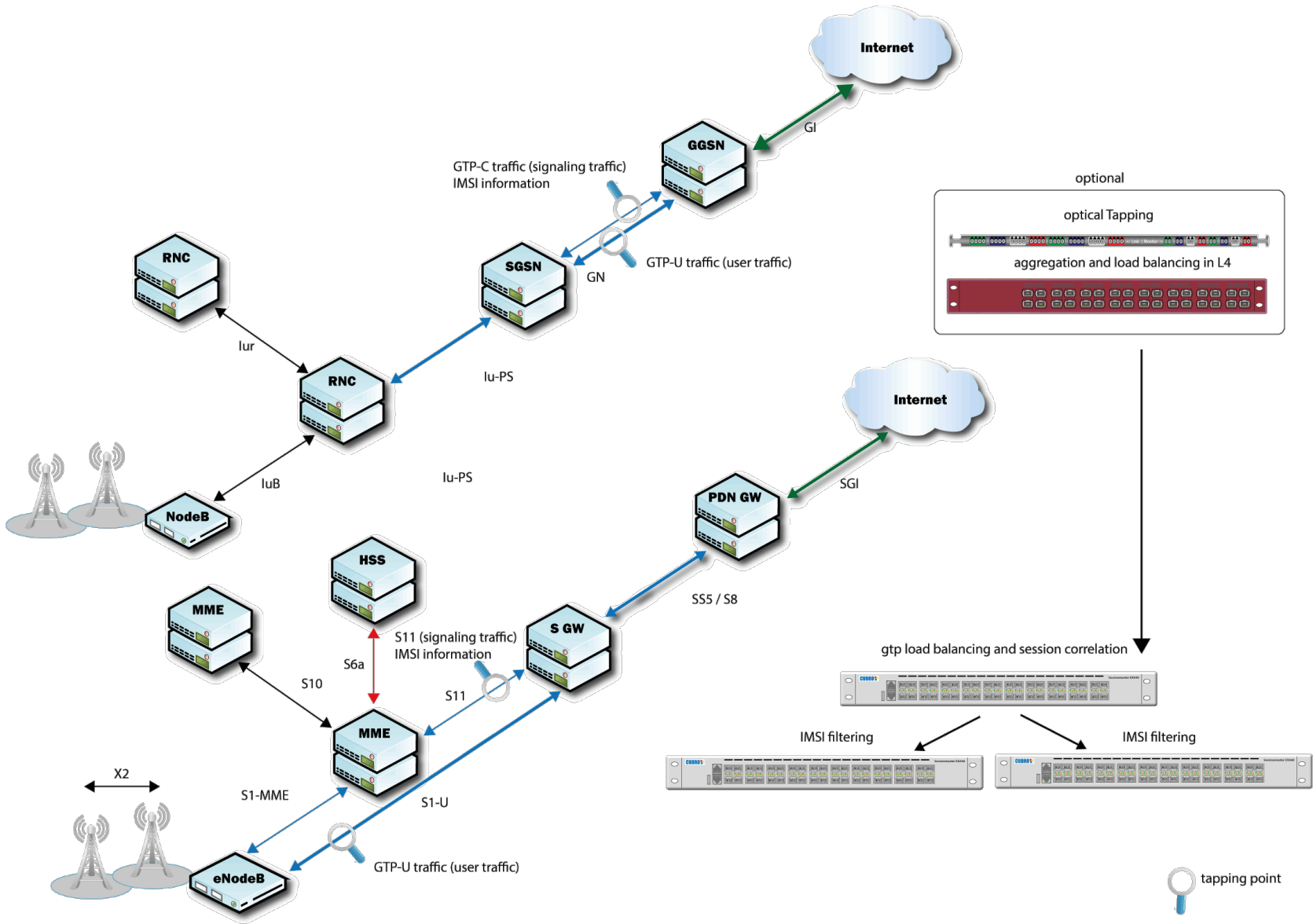
26 June 2017

# What is IMSI?

- The International Mobile Subscriber Identity (IMSI) number is central to identifying users on a carrier network.
- It is a unique number that is assigned to a cell phone or mobile device to identify it on the GSM or UTMN network.
- Typically, the IMSI number is stored on the SIM card of the mobile device and is sent to the network as required.
- An IMSI number is 15 digits long, and includes the Mobile Country Code (MCC), Mobile Network Code (MNC), and Mobile Station Identification Number (MSIN).

# Why do we need IMSI Filter?

- To reduce the load on monitoring equipment
- To prevent VIP and classified customers from monitoring
- Either for small scale monitoring or to capture a single subscriber with Wireshark or similar tools



# Challenges on IMSI Filtering

- High load and the fact that the IMSI is not found in any packet depending on the network design and used technology (2G/3G/4G).
- The IMSI information is typical on a different logical and physical interface.
- To make IMSI filtering possible, other functions like aggregation, load balancing and session correlation must be combined.

# Solution

The **Cubro Sessionmaster**  
performs all these functions!

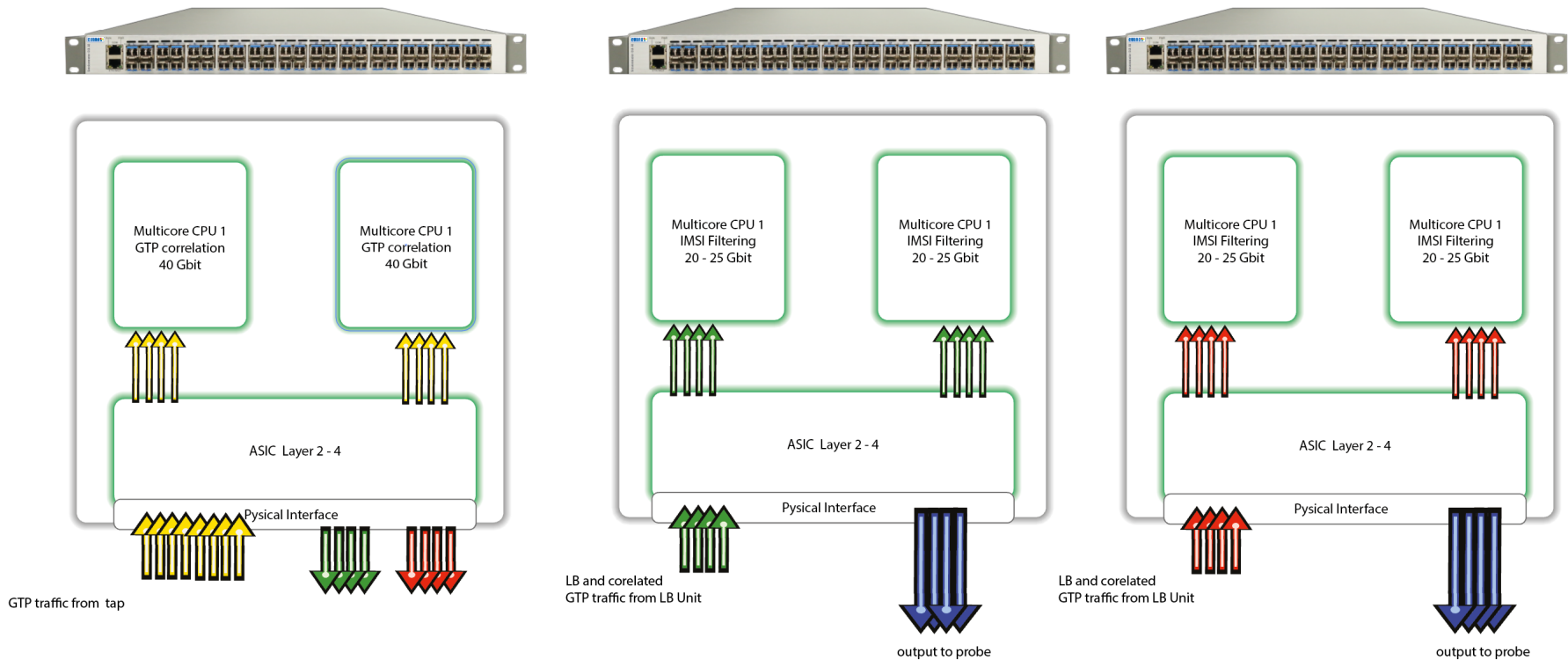
# Sessionmaster EXA40(D)



- ✓ 40 x 10Gbit
- ✓ Up to 2 x Octeon III CN6xxx CPU (30 cores each)
- ✓ Up to 2 x 64 GB DDR memory
- ✓ Up to 2 x 160 billion instructions per sec
- ✓ Up to 80 Gbps L7 filtering performance (forwarding only)
- ✓ Up to 40 Gbps L7 correlation performance
- ✓ Internal L4 NPB with 800Gbps performance

# IMSI Filter internal configuration

Solution for up to 100 Gbit and one million IMSI filtered out (white list)





# Thank you

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## Japan



**HongKe**  
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