

VoLTE & LI Discussion

3GPP SA3-LI 51

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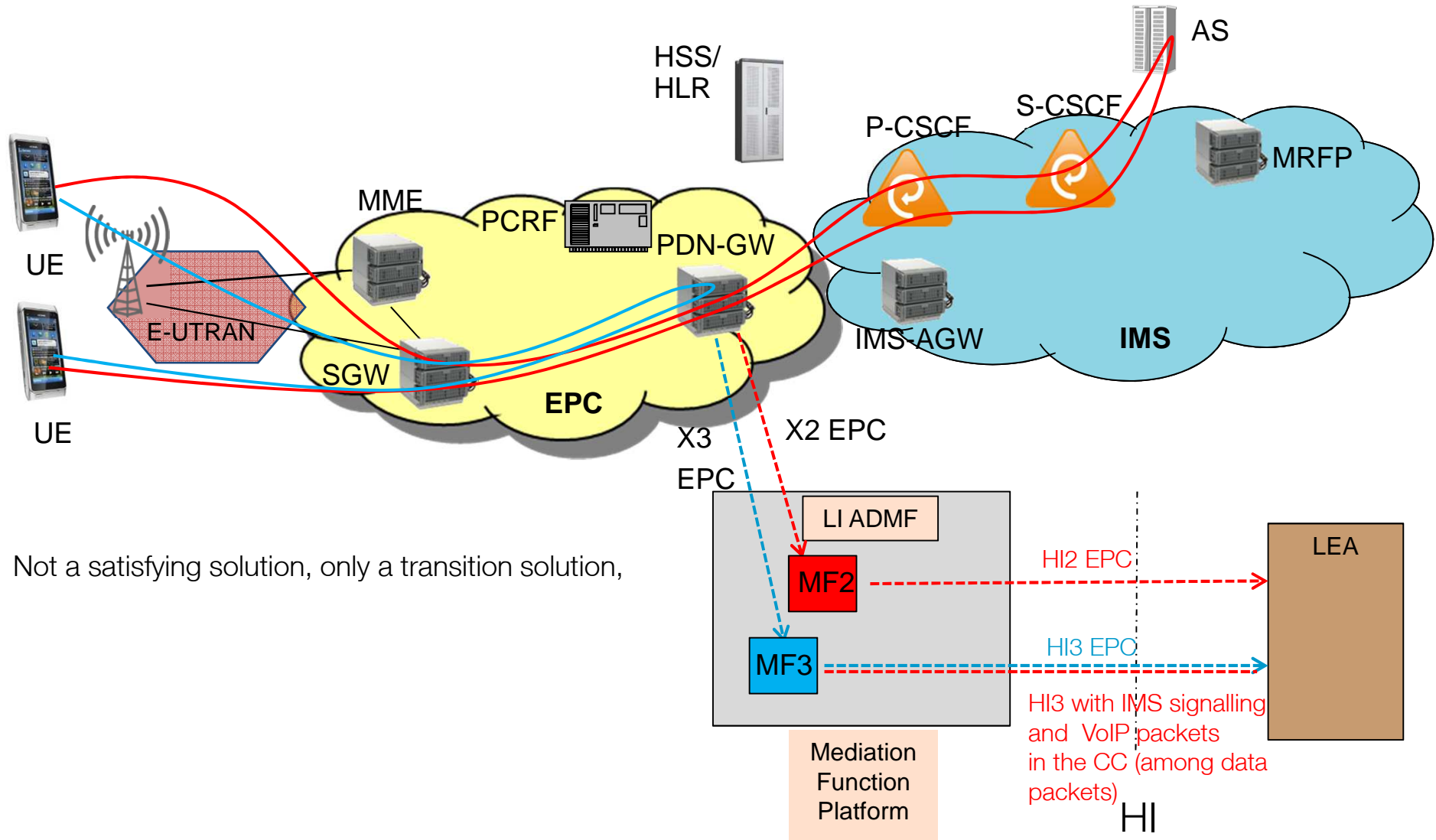


Introduction: LI for VoLTE

- What are the solutions?
 1. Mutualization with EPC LI system
 2. IMS based interception
 - IRI intercepted by P/S-CSCF
 - 2 sub-solutions for CC
 - Solution 1 : CC intercepted in core IMS (e.g. MRF or other IAP equipment through re-routing)
 - Solution 2: CC intercepted in IMS-AGW
 3. AS based interception
 - IRI-IIF located in AS
 - CC-IIF located in MRF
 4. EPC and IMS cooperation
 5. LI Probes when relevant

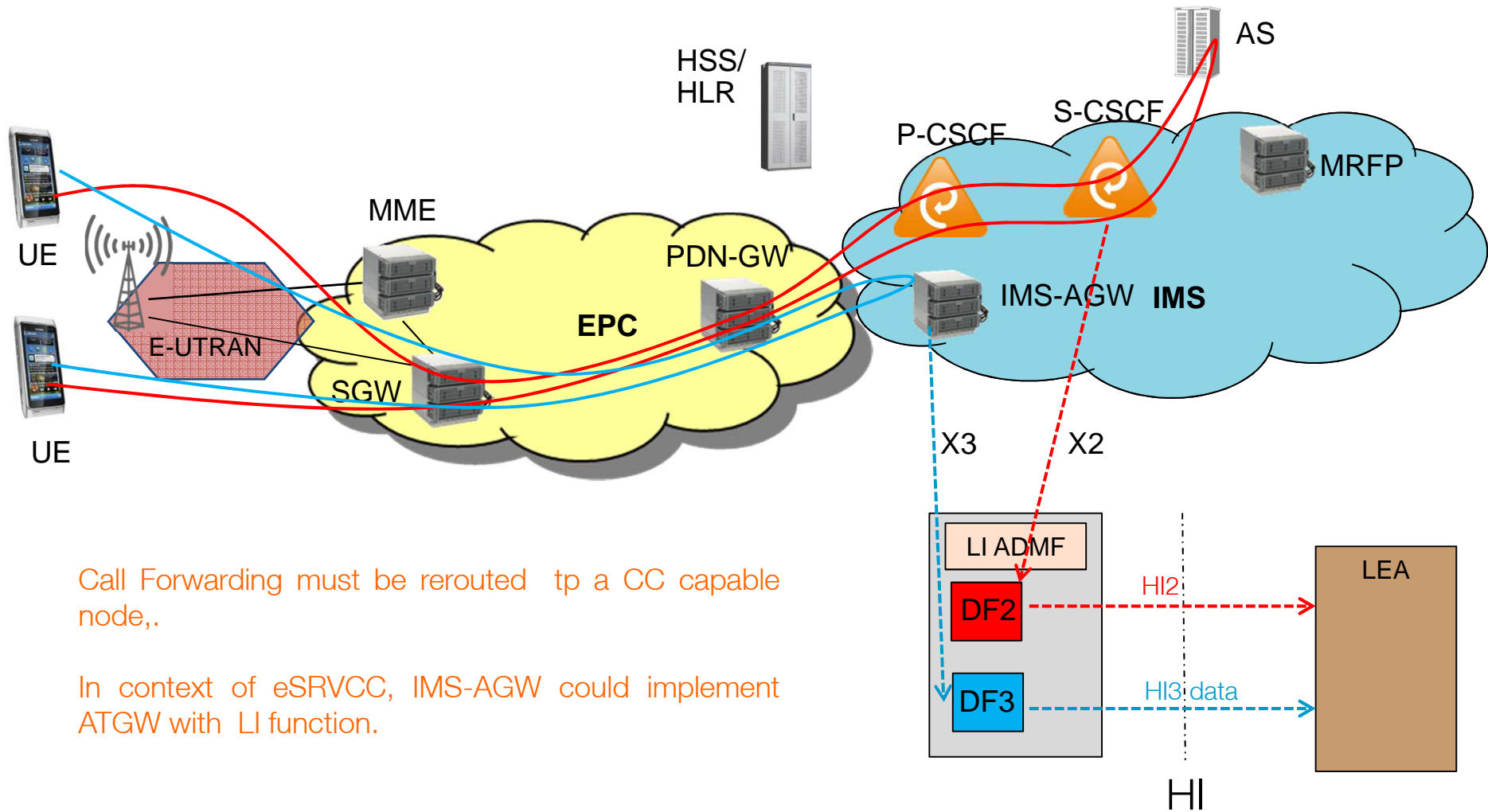
- To cover common use cases: a mixt of these solutions.

LI for in EPC: temporary solution



Not a satisfying solution, only a transition solution,

LI implemented at IMS level (CC generated in IMS-AGW)



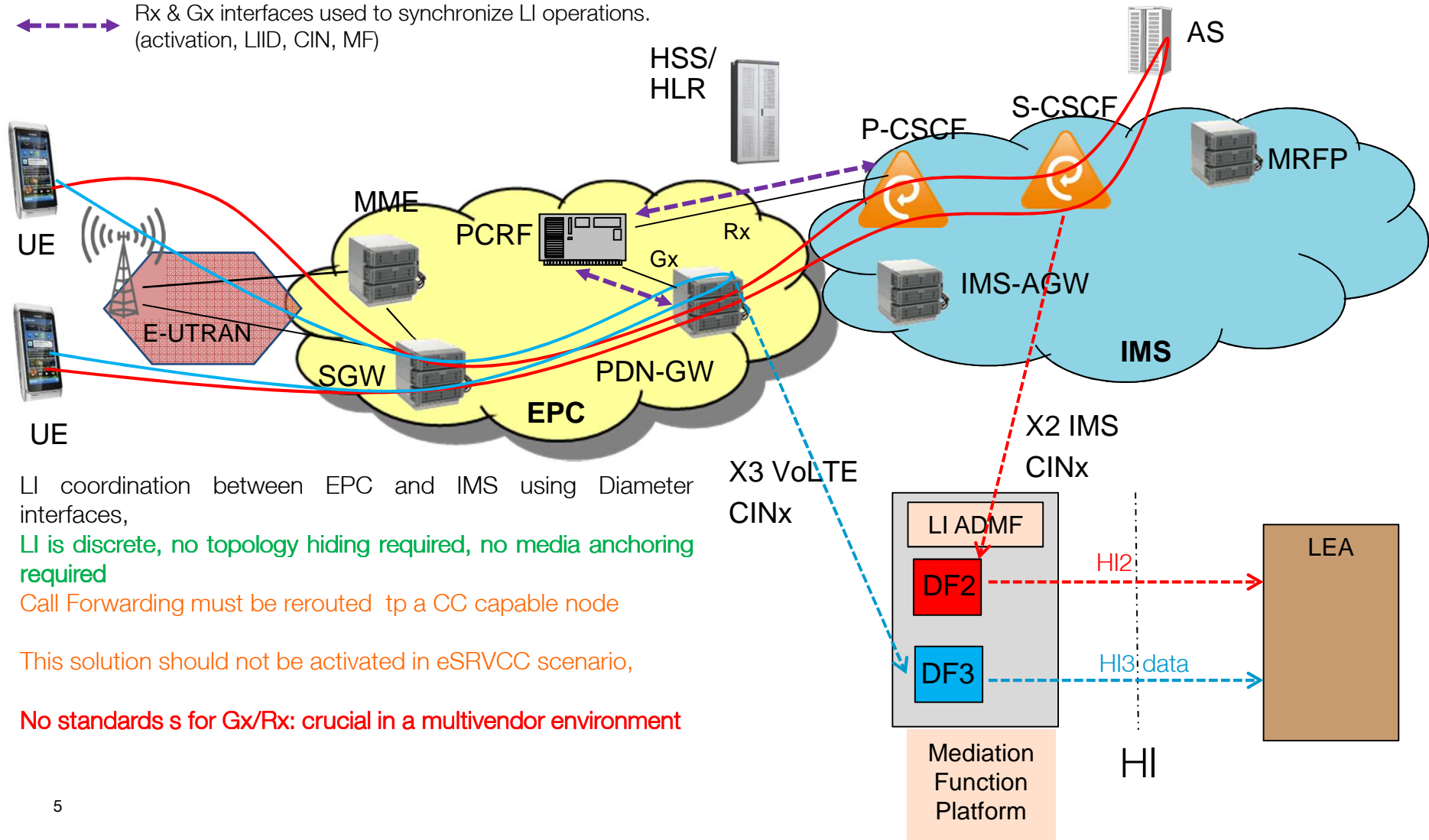
Call Forwarding must be rerouted to a CC capable node,.

In context of eSRVCC, IMS-AGW could implement ATGW with LI function.

LI for VoLTE media in EPC (PDN-GW): EPC LI system interoperable with IMS LI system

NB: HI for EPC are omitted

↔ Rx & Gx interfaces used to synchronize LI operations.
(activation, LIID, CIN, MF)



LI coordination between EPC and IMS using Diameter interfaces,

LI is discrete, no topology hiding required, no media anchoring required

Call Forwarding must be rerouted to a CC capable node

This solution should not be activated in eSRVCC scenario,

No standards for Gx/Rx: crucial in a multivendor environment

What should be done?

- SA3LI13_093, SA3LI13_094, SA3LI13_095 are good improvement to 33.107 toward what could be a VoLTE target architecture.
- But for VoLTE LI in PDN-GW (with IMS's synchronization on Rx/Gx):
 - in multivendors EPC/PCRF/IMS environment, Rx/Gx AVP must be specified to allow an interoperability with PDN-GW and PCRF
- In context of SRVCC:
 - a mechanism must be implemented to prevent duplication of IRIs, and inconsistency of CINs.
 - This mechanism must be standardized in the context of multivendors CS network/IMS network:
- Location: EPC's location information must be provided to IMS level for VoLTE.