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SIPTO Clarification for DASH

Agenda item: 7

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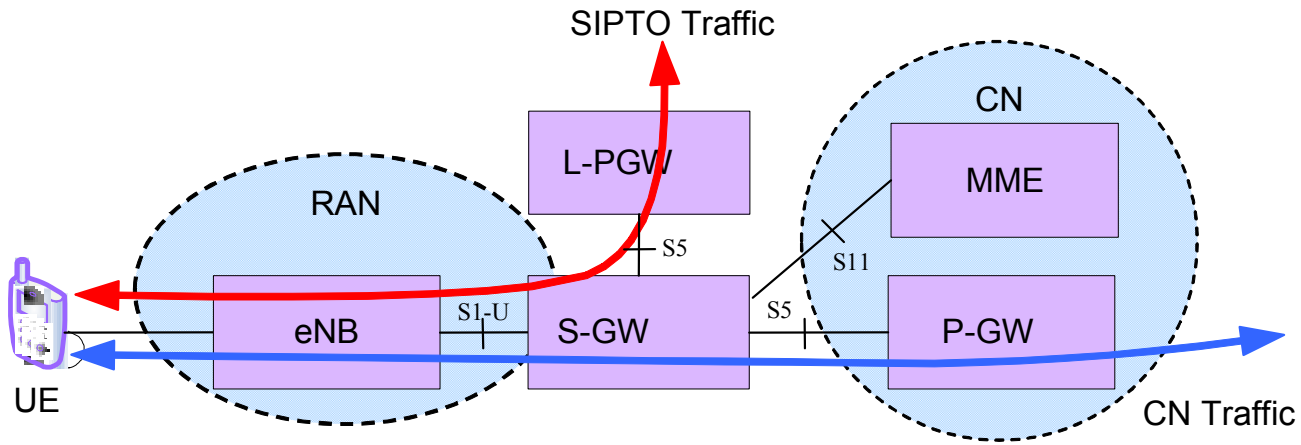
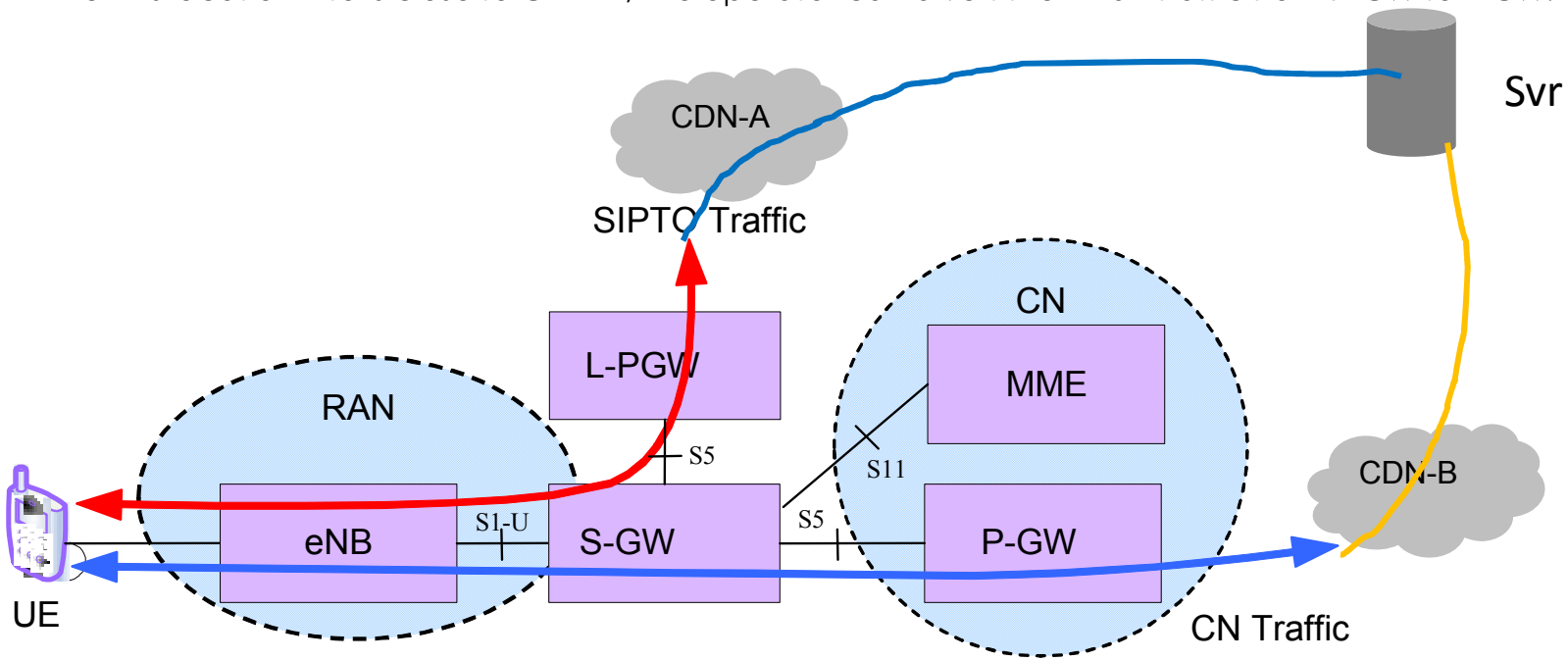
SIPTO

- LTE supports SIPTO as specified at TS 23.401
- SIPTO is designed to optimize the traffic which is not intended for the CN
- SIPTO benefits the cellular operator and it is transparent for the end user
- SIPTO can be achieved by selecting a set of GWs (S-GW and P-GW) that is geographically/topologically close to a UE's point of attachment.
- SIPTO applies to both the non-roaming case and, provided appropriate roaming agreements are in place between the operators, to the roaming case.
- SIPTO parameters are configured at the HSS per user and APN basis.



SIPTO Benefit for DASH

- User plane performance improvement
  - If SIPTO is supported, the DASH traffic flows via CDN-A instead of routing from to P-GW and CDN-B, especially in the roaming case.
- Load balance
  - The high loading pressure of P-GW can be mitigated under high video traffic demand condition.
- One possible example
  - The network is assumed of capable of SIPTO. When a UE accesses DASH streaming service and UE’s location info is close to CDN-A, The operator can divert the DASH traffic from P-GW to L-GW.



Conclusion

- SIPTO feature is supported in LTE already.
- SIPTO improves DASH in term of user plane performance improvement and load balance of P-GW.
- It is proposed that the operator can configure the user subscription information to allow the selection of a PDN GW (P-GW/GGSN) close to the radio network (SIPTO) for DASH content delivery.