

**SP-180342**

**3GPP TSG-SA Meeting #80**

**13 - 15 June 2018, La Jolla, California, USA**

# **View on Release 16 Focus Areas and Prioritise Huawei**

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- **3GPP will take 3 releases to deliver full 3GPP 5G specifications set - started with Rel-14 as the study phase.**
- **Rel-16 is an important part of the 5G**
  - Rel-16 to go further than eMBB
- **Rel-16 TSG-SA Focus Areas and features to deliver capabilities and services for full 5G experience**

# Huawei view on TSG SA Rel-16 Focus Areas

## URLLC

- Enhancement of URLLC supporting in 5G

## IoT

- Cellular IoT support and evolution for the 5G System

## Non-3GPP support, Common 5G Core

- Wireless and Wireline Convergence for the 5G system architecture
- Access Traffic Steering, Switch and Splitting support in the 5G system architecture

## Automation/Analytics/Big Data

- Enablers for Network Automation for 5G

## Vehicular, Advanced V2X services

- Architecture enhancements for 3GPP support of advanced V2X services

## Enterprise and Verticals support

- 5GS enhanced support of Vertical and LAN services

## Enhanced IMS to 5GC Integration

- Enhanced IMS to 5GC Integration
- System architecture for next generation real time communication services

## 5GS Enhancements

- Single radio voice continuity from 5GS to 3G
- Enhancing Topology of SMF and UPF in 5G Networks
- Enhancements to the Service-Based 5G System Architecture

# Huawei view on TSG SA Rel-16 Essential Items

Rel-16 Focus Area	Rel-16 Study/Work Item	Justification why it is Essential	Expected impacts on RAN (WGs)	Size and TUs in SA2*
URLLC	Study on Enhancement of URLLC supporting in 5G	URLLC is a 5G requirement for many use cases and is needed to support commercial deployments.	Yes (RAN1/2/3)	Medium 2 TUs per meeting
IoT	Study on Cellular IoT support and evolution for the 5G System	To support CIoT scenarios in 5G system. Feature continue in 5G. High priority aspects: Control plane small data transmission; Power saving solution: PSM; Coverage enhancement support in CN; Capability exposure.	Possibly Yes, but mainly alignment (RANx)	Large 3 TUs per meeting
Non-3GPP support, Common 5G Core	Study on the Wireless and Wireline Convergence for the 5G system architecture	Wireline access to 5GC and common core are requirement in some markets for 5G deployments. BBF and 3GPP have working agreement on progressing this work.  IPTV Wireline access to 5GC Hybrid access (link to ATSSS)	Yes (RAN3)	Medium 2 TUs per meeting
	Study on Access Traffic Steering, Switch and Splitting support in the 5G system architecture	Same rational as WWC.	TBD	Small 1 TU per meeting

\*Note: "TUs in SA2" is based on Rapporteurs input for SA2 work planning.

# Huawei view on TSG SA Rel-16 Essential Items

Rel-16 Focus Area	Rel-16 Study/Work Item	Justification why it is Essential	Expected impacts on RAN (WGs)	Size and TUs in SA2*
Automation/Analytics/Big Data	Study of enablers for Network Automation for 5G	Support Network Automation in 5G. Could assist with defining mechanisms to guarantee SLA for operators to provide better service for third parties.  Additional use cases expected for Rel-17 also.	Yes (RAN2/RAN3)	Medium 2TU per meeting
Vehicular, Advanced V2X services	Study on architecture enhancements for 3GPP support of advanced V2X services  Also application aspects (in SA6).	To support V2X scenarios in 5G system.	Yes (RAN1/2/3)	Large 3 TUs per meeting
Enterprise and Verticals support	5GS enhanced support of Vertical and LAN services	The new KPIs from verticals, the 5G LAN-type service as well as the integration with TSN (time sync and time-aware scheduling) would expand the usage of 5G system in industry automation.	Yes (RAN2/3and RAN 1?)	Med-Large (depends on the objectives finally agreed.) 2/3 TU per meeting

\*Note: "TUs in SA2" is based on Rapporteurs input for SA2 work planning.

# Huawei view on TSG SA Rel-16 Essential Items

Rel-16 Focus Area	Rel-16 Study/Work Item	Justification why it is Essential	Expected impacts on RAN (WGs)	Size and TUs in SA2*
Enhanced IMS to 5GC Integration	Study on Enhanced IMS to 5GC Integration	To enable the IMS services to leverage the capabilities of the 5G System, allowing IMS capabilities to more efficiently integrate and operate with the 5GC features and functions.	No	Medium 1-2 TUs per meeting
	Study on system architecture for next generation real time communication services(SA2)	SA1 already agreed Rel-16 WID/requirement for R16 to enhance IMS to support new real-time communication services, such as fast call setup, large scale one to many asymmetric communication, IMS as part of network slice, allowing interworking with non-SIP video devices, AR/VR and so on, which has potential requirement to enhance IMS architecture to support more efficient call setup and efficient media negotiation and establishment, and modularization of IMS network to orient IMS more suitable to serve variant vertical real-time services.	No	Medium 1-2 TUs per meeting

\*Note: "TUs in SA2" is based on Rapporteurs input for SA2 work planning.

# Huawei view on TSG SA Rel-16 Essential Items

Rel-16 Focus Area	Rel-16 Study/Work Item	Justification why it is Essential	Expected impacts on RAN (WGs)	Size and TUs in SA2*
5GS Enhancements	Study for single radio voice continuity from 5GS to 3G	Requirement for scenarios that don't deploy VoLTE or LTE, this feature is needed for such 5GS deployments.	Yes (RAN2/RAN3/RAN4)	Small 1 TU per meeting
	Study on Enhancing Topology of SMF and UPF in 5G Networks	To support large network deployments (e.g., a SMF may not be able to control UPF(s) throughout the same PLMN). Also useful for enterprise usage where UPF might not be managed by operator SMF.	No	Medium 1-2 TUs per meeting
	Enhancements to the Service-Based 5G System Architecture	Important but not urgent. Will help the 5GC to remove its legacy aspects and differentiate itself from EPC	No	Large 3 TUs per meeting

\*Note: "TUs in SA2" is based on Rapporteurs input for SA2 work planning.

# Proposal

- **SA#80 identify topics/items that should be completed in Rel-16**
- **In Huawei's view the items identified in previous pages are considered 'essential' for Rel-16 and should take priority**
- **Other items should be addressed as time/schedule allows**
- **There should also be consideration for previous release maintenance and potential items that may come as a result of work in other TSGs/WGs**
- **It should be noted that for the items with RAN impact, the SA/SAx priority may be dependent on RAN time allocation and progress**

**Thank you!**

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