



# Considerations for Rel-18 – SA2

Source: Futurewei



# Release 18 Timeline



- It is foreseen that Rel-18 duration will be set to be 18 Months
- Assuming an 18-month Release following the Rel-17 completion, and assuming “existing” release Work Planning process and timing for 3-stages:
  - Stage-2 official freeze would be December 2022
  - Stage-3 official freeze would be September 2023 (i.e., TSG-CT having 9-months after stage-2 completion)
- Observation: Following current process, the Stage-2 development in SA2 will be shorter than usual since no Rel-18 work has started in SA2 yet
- Question: Should 3GPP in future consider modifications of Work Planning for 3-stages development, and if so when and for which release?

# Release 18 - Start of 5G-Advanced



- Rel-18 features as first release of 5G-Advanced should aim to fulfil the requirements for eMBB and non-eMBB
- Considering requirements from MNOs, Verticals, and Public Safety organizations
- As summarized by the TSG-RAN Rel-18 Workshop in June (RWS-210659) a “Balanced Evolution” is desired:
  - *Balanced mobile broadband evolution vs. further vertical domain expansion,*
  - *Balanced immediate vs. longer term commercial needs, and,*
  - *Balanced device evolution vs. network evolution.*
- The Rel-18 SI/WI proposals that were submitted into SA2#146e are a mix of eMBB-driven evolution, Non-eMBB driven evolution, and Cross-functionality
  - While it is possible to categorized the SA2 SI/WI proposals into above classifications, it may be easier to also consider classification of evolution functionality 1) based on another phase of previous release(s), and 2) based on Brand new features SI/WI. Both of which needs to be considered for Rel-18 content.

# Candidate list for SA2 WI Prioritization (1/3)

- Category 1: Enhanced and new functionality based on continuation of previous Release(s) work items (i.e., phase 2, phase 3)
- Category 2: Enhanced and new features through new studies
- Category 3: new Mini-WIDs (TEI-18) – not proposed for SA level prioritization

It is foreseen that SA2 will not have the bandwidth/capacity to work on a large number of SI/WI for Rel-18. The work bandwidth/capacity be determined through Work Planning by SA2 leadership.

Further work is required to merge, scope, and focus the SI/WI Objectives for:

1. SA2 agreement/approval in 4Q-2021
2. SA Prioritization in December 2021

# Candidate list for SA2 WI Prioritization (2/3)



Candidate Category 1 proposals for prioritization (enhanced and new functionality based on continuation of previous Release(s) work items)

Rel-18 new SA2 Study Items/Work Items proposal	Potential RAN Dependency
Study on the support for 5WWC, Phase 2.	No
Study on Access Traffic Steering, Switching and Splitting support in the 5G system architecture; Phase 3.	TBD
Study on Network Slicing Phase 3.	Yes
Study on enhanced support of Non-Public Networks phase 2.	TBD
Study of Further Architecture Enhancement for UAV and UAM.	Yes
Study on Architectural enhancements for 5G multicast-broadcast services Phase 2.	Yes
Study on System enhancement for Proximity based Services in 5GS - Phase 2	Yes
Study on Enablers for Network Automation for 5G - phase 3.	TBD
Study on Enhancement to the 5GC LoCation Services Phase 3.	Yes
Study on Integration of satellite components in the 5G architecture Phase II	Yes
Study on Enhancement of support for Edge Computing in 5G Core network - phase 2.	TBD

# Candidate list for SA2 WI Prioritization (3/3)

Candidate Category 2  
proposals for prioritization  
(enhanced and new features  
through **new studies**)

Rel-18 new SA2 Study Items/Work Items proposal	Potential RAN Dependency
New WID on MPS when access to EPC/5GC is WLAN .	No
Study on 5G System Support for AI/ML-based Services.	No
Study on 5G Timing Resiliency and TSC & URLLC enhancements.	Yes
Study on enhancement of 5G AM Policy.	TBD
Study on Passive Internet of Things (Passive IoT) for 5G Advanced.	Yes
Study on enhancement of 5G UE Policy.	No
5G Architecture enhancements for Harmonized Communication and Sensing service.	Yes
Study on enhancement of support for Separation and Isolation of NF and Data in 5GC.	No
Study on architecture enhancement for XR and media services.	TBD
Study on UPF enhancement for control and SBA .	No
Study on enhancement on generic group management and 5G LAN VN communication	No
Study on Ranging based services and relative positioning.	Yes
Study on Personal IoT and Residential Networks architecture.	Yes
Study of Architecture Enhancement for Vehicle Mounted Relays.	Yes
Study on System Enabler for Service Function Chaining.	No
Study on system architecture for next generation real time communication services.	No

# Proposal

While SA2 works to consolidate and agree on a set of Rel-18 WI/SI in 4Q-2021 for SA prioritization, also perhaps consider a small number of R18 work tasks that can be worked on in 4Q-2021. This could be any one or combination of the following options:

- Small number of studies with majority support from the list that is based on continuation of previous Release(s) work items (cat 1),
- Small number of studies with majority support from the list of New functionality proposals (cat 2),
- Some items with no RAN dependency, or
- Small number of new Mini-WID/TEI