
1 Introduction

2 Scoping

2.1 Work Tasks based on input to and outcome of the Workshop

The initial set of Work Tasks for discussion, based on the input to the Jun workshop, and listed in document SP-231070 are as follows:

WT-1: Study whether and how to enhance the network slice handling for PDN connection in EPC to

1. support of NSSAA in EPS
2. support of NSSRG constraints in EPSsupport of network slice Replacement in EPC
3. support of network slice Replacement in EPC

WT-2: Study whether and how to make the network slice selection network controlled:

1. study how to enable selection of a network slice based on the notification from the network side
2. study how to enable trusted 3rd party to trigger the notification for the slice selection
3. study how to enhance existing PDU session modification procedure to enable switching PDU session between the slices
4. study how to enhance the EPC interworking to support the network controlled network slice selection

WT-3: Study whether and how to enhance NSSAA feature to

1. support the UE deregistration status awareness in the NSSAAF
2. remove the S-NSSAI from the Pending NSSAI in the UE if the NSSAA for S-NSSAI success but the S-NSSAI does not share common NSSRG of the Allowed NSSA support Network Slice Replacement in EPC

WT-4: Study whether and how to support per UE network slice priorities e.g. to support target NSSAI definition.

WT-5: Study whether and how to support the CN to trigger the redirection/handover of the UE to different cell after UE mobility in connected mode.

WT-6: Study whether and how to support NSSRG restriction across different access types over different PLMNs.

WT-7: Study whether and how to allow simultaneous roaming in two VPLMNs

WT-8: Study whether and how to support open mechanisms to indicate TA and cell level topology to the AMF, including information on availability of network slices at cell level.

WT-9: Study whether and how to support dynamical Slice MBR provisioning from the network slice consumer.

WT-10: Study whether and how to support slice mapping information notification from NSSF

The following Feedback forms are intended to capture company input on whether a work task should be in the scope of Rel-19, and can also be used eg to provide input on whether a work task can be merged with another, propose re-wording of the work task, or propose that a WT-x should be part of another study/work item.

Feedback Form 1: Should WT-1.1 be in the scope of Rel-19?

1 – Nokia UK YES, without this the NSSAA slice customer cannot establish a session while in EPS. this is a must have
2 – LG Electronics France No. Secondary authentication should be sufficient.
3 – Guangdong OPPO Mobile Telecom. No. rejection of PDN connection is ok
4 – HuaWei Technologies Co. No. In general not necessary to enhance EPS for slicing at this stage.
5 – Ericsson LM No, SMF+PGW-C will prioritize other S-NSSAIs if the SMF+PGW-C supports other S-NSSAIs not subject to NSSAA
6 – TELEFONICA S.A. No. Not needed at this stage
7 – Dish Network No. do not see any urgent needs, at this stage !
8 – Deutsche Telekom AG No. Not needed at this stage

9 – QUALCOMM Europe Inc. - Italy Not seen as urgent or necessary at this stage
10 – Apple Distribution Intl Ltd Not necessary at this stage

Feedback Form 2: Should WT-1.2 be in the scope of Rel-19?

1 – Nokia UK yes if time permits, lower priority than WT 1.1
2 – LG Electronics France No. NSSRG is based on subscription. If needed, UDM/HSS can provide subset of Subscribed S-NSSAIs that shares common NSSRG. This can be done by TEI19 if needed.
3 – ZTE Corporation. No. The SMF+PGW can retrieve the Slice Selection Subscription data from UDM, which has included the NSSRG information, so not sure what is the gap.
4 – Guangdong OPPO Mobile Telecom. No. common NSSRG should be applied.
5 – HuaWei Technologies Co. No. Not sure the gap and in general not necessary to enhance EPS for slicing at this stage.
6 – Ericsson LM No
7 – Dish Network No. do not see any urgent needs, at this stage !
8 – TELEFONICA S.A. No. Not necessary at this stage
9 – Deutsche Telekom AG No. Not necessary at this stage
10 – QUALCOMM Europe Inc. - Italy No gap identified, not needed

11 – Apple Distribution Intl Ltd

Not necessary at this stage

Feedback Form 3: Should WT-1.3 be in the scope of Rel-19?

1 – Nokia UK

yes if time permits, lower priority than WT 1.1

2 – LG Electronics France

No. In EPC, selection of slice is performed by PGW. If slice needs to be changed, PGW can request UE to re-establish PDN connection. No need to add Slice Replacement feature in EPC.

3 – ZTE Corporation.

Yes. PDN connection Re-establishing is one solution, however the service continuity is not ensured.

4 – Guangdong OPPO Mobile Telecom.

No. PDN connection reestablishment can be used. Or when the UE moves to 5GS, then the slice replacement is performed.

5 – HuaWei Technologies Co.

No. In general not necessary to enhance EPS for slicing at this stage.

6 – Ericsson LM

No

7 – Dish Network

No. do not see any urgent needs, at this stage !

8 – TELEFONICA S.A.

No. No need to add this feature in EPC

9 – Deutsche Telekom AG

No

10 – QUALCOMM Europe Inc. - Italy

Not needed, at worst PDN re-establishment can be used even at the cost of continuity

11 – Orange

No

12 – Apple Distribution Intl Ltd

Not necessary at this stage

Feedback Form 4: Should WT-2.1 be in the scope of Rel-19?

1 – KDDI Corporation

YES.

Mechanism for slice switching from NW side is beneficial to NW operators.

2 – KDDI Corporation

All of the subtasks in WT2 are interrelated and must be considered as a set, so none of them should be deleted.

3 – Nokia UK

following Yousuke comment we can have a single WT to study how to leverage network slice replacement defined in rel-18 to change the slice of a UE by means of a trigger that could be a trusted a trusted AS

4 – LG Electronics France

Objective and use case is not clear. UE follows URSP rule to select slice for a PDU Session. If network wants to use other slice, network can update URSP rule. Why additional mechanism needs to be studied?

5 – ZTE Corporation.

URSP rule is one solution. Agree with Nokia, slice replacement is another option. We have studied the AS triggered slice replacement in R18 however it is not agreed at that time. We agree we can reconsider this requirement in R19.

6 – HuaWei Technologies Co.

Needs more clarification. Unclear how it is needed compared to current mechanisms (slice replacement). Besides, what issue does it solve? if it is for "bad UE behavior", it seems this will not help since this would need cooperation from UE side.

7 – Guangdong OPPO Mobile Telecom.

No. URSP rule is sufficient.

8 – Orange

Yes, the WT2 are interested at least WT2.1 and WT2.2.

9 – Ericsson LM

Yes, but clarifications of justification and objective required

10 – Dish Network Yes, but gap analysis is needed what is missing from current features !
11 – TELEFONICA S.A. Yes. We strongly support it
12 – InterDigital Yes, however we also think that further work is need on both definition of justification (e.g., what problem needs to be solved) and definition of objective, without hinting to specific solutions. The current WTs are already solution oriented in our view.
13 – QUALCOMM Europe Inc. - Italy studying what is missing in URSP-based and slice replacement is a must before deciding what the actual gap is, it seems only AS-triggered slice replacement is missing? Overall not convinced this is needed
14 – Apple Distribution Intl Ltd No. We agree with LG comment, network can always update URSP rule. AS-triggered slice replacement may be an alternative but we are not convinced there's a gap why such solution is needed in R19.

Feedback Form 5: Should WT-2.2 be in the scope of Rel-19?

1 – KDDI Corporation YES. Mechanism for slice switching from NW side is beneficial to NW operators.
2 – KDDI Corporation All of the subtasks in WT2 are interrelated and must be considered as a set, so none of them should be deleted.
3 – Nokia UK yes but we can merge in WT 2.1 and have a single WT
4 – LG Electronics France In Rel-18, we determined that application layer does not aware of slice replacement. Why application layer cares about slice used in 5GC? What application cares should be QoS requirement.
5 – ZTE Corporation. yes but we can merge in WT 2.1 and have a single WT

6 – HuaWei Technologies Co. Needs more clarification. This is already supported by the URSP. What kind of enhancement is required?
7 – Guangdong OPPO Mobile Telecom. No. Existing mechanism "A 3rd party is able to provide guidance for URSP determination to 5GS via NEF "Application guidance for URSP determination" API can solve the issue.
8 – Orange Yes, this WT should be part of R19 .
9 – Ericsson LM Yes, but can be merged with 2.1 and clarifications of justification and objective required
10 – Dish Network Needs more clarification, 3rd party to trigger the slice selection or want to get the result?
11 – TELEFONICA S.A. Yes. We strongly support it
12 – InterDigital Yes, but it can be considered as a single WT.
13 – QUALCOMM Europe Inc. - Italy the objective needs to be clarified before being considered, what is missing here exactly? as other colleagues mentioned, there seem to be enough mechanisms already
14 – Apple Distribution Intl Ltd No. We are not sure how application layer is involved with slice selection. URSP rules can already take care of mapping traffic categories into particular slices.

Feedback Form 6: Should WT-2.3 be in the scope of Rel-19?

1 – KDDI Corporation YES. Mechanism for slice switching from NW side is beneficial to NW operators.
2 – KDDI Corporation All of the subtasks in WT2 are interrelated and must be considered as a set, so none of them should be deleted.

<p>3 – Nokia UK</p> <p>yes but we can consider this the suggested technical approach. so can be part of 2.1</p>
<p>4 – LG Electronics France</p> <p>Objective is not clear. What is the difference compared to Network Slice Replacement?</p>
<p>5 – ZTE Corporation.</p> <p>yes but we can merge in WT 2.1 and have a single WT</p>
<p>6 – HuaWei Technologies Co.</p> <p>Clarifications are needed. This seems a solution oriented description and the current R18 slice remapping mechanism supports modification of S-NSSAI for the existing PDU session. Additionally, if it is not related to resource (e.g. due to congestion in R18), one more question: slicing is about partitioning resources, if resources are not partitioned any more, then why use multiple slices in the first place?</p>
<p>7 – Guangdong OPPO Mobile Telecom.</p> <p>The subwt is unclear to us.</p>
<p>8 – Orange</p> <p>Yes, WT2.3 is interested</p>
<p>9 – Ericsson LM</p> <p>Clarifications of justification and objective required as to clarify what is missing compared to Rel-18 which can be done by extending 2.1</p>
<p>10 – Dish Network</p> <p>Looks like a solution for WT 2.1.</p>
<p>11 – TELEFONICA S.A.</p> <p>Yes. We strongly support it</p>
<p>12 – InterDigital</p> <p>Yes, but further work is needed on justification, as it isn't obvious what problem needs to be studied that the current functionality cannot already handle. Also, this WT is already hinting a solution.</p>

13 – QUALCOMM Europe Inc. - Italy

this seems very solution oriented, and the actual technical issue is not clear. What is the problem to be solved? We cannot support until the issue is clarified, and we agree this seems a solution for WT2.1

14 – Apple Distribution Intl Ltd

No. Network Slice Replacement seems to provide the same solution.

Feedback Form 7: Should WT-2.4 be in the scope of Rel-19?

1 – KDDI Corporation

YES.

Mechanism for slice switching from NW side is beneficial to NW operators.

2 – KDDI Corporation

All of the subtasks in WT2 are interrelated and must be considered as a set, so none of them should be deleted.

3 – Nokia UK

this can be considered as part of WT 1.3 if this progresses. one point to be considered is whether slice change in EPS is needed.

4 – LG Electronics France

No. In EPC, selection of slice is performed by PGW. It is already supported.

5 – ZTE Corporation.

yes but we can merge in WT 2.1 and have a single WT

6 – HuaWei Technologies Co.

No. It is already supported in R18 that the slice selection when the UE camp at the EPS network. Seems nothing new.

7 – Guangdong OPPO Mobile Telecom.

No. In the EPS, slice is selected by the NW.

8 – Orange

Yes, WT2.4 is interested

<p>9 – Ericsson LM</p> <p>Not clear why we would need to enhance the S-NSSAI selection by SMF-PGW-C, i.e. need some more clarifications</p>
<p>10 – TELEFONICA S.A.</p> <p>Yes. We strongly support it</p>
<p>11 – InterDigital</p> <p>It is not clear to us what needs to be enhanced.</p>
<p>12 – QUALCOMM Europe Inc. - Italy</p> <p>No, because there is no technical issue identified as a gap</p>
<p>13 – Apple Distribution Intl Ltd</p> <p>No. Unclear why we need network controlled network slice selection.</p>

Feedback Form 8: Should WT-3.1 be in the scope of Rel-19?

<p>1 – Nokia UK</p> <p>No, it is not a urgent feature. maybe an optimization after operational experience with NSSAA</p>
<p>2 – LG Electronics France</p> <p>Objective is not clear. Why NSSAAF needs to know deregistration status of UE?</p>
<p>3 – ZTE Corporation.</p> <p>Yes. The NSSAAF may revoke the authentication which is unnecessary if the UE has been deregistered.</p>
<p>4 – HuaWei Technologies Co.</p> <p>Needs more clarification. Actually this issue is raised in R16, but got no result. What has changed since R16?</p>
<p>5 – Guangdong OPPO Mobile Telecom.</p> <p>No. This enhancement is not required. When the UE is in the deregistered state, the NW can still maintain that the slice has been performed NSSAA and avoid the NSSAA again.</p>
<p>6 – Ericsson LM</p> <p>No</p>

7 – TELEFONICA S.A. No. it seems like a "nice-to-have" feature; with low-priority
8 – InterDigital No, it is not clear how having UE deregistration awareness is in scope of the type of services provided by NSSAFF (e.g., performing protocol conversion and re-authentication related support)
9 – QUALCOMM Europe Inc. - Italy This is an unnecessary optimization for corner cases. No
10 – Deutsche Telekom AG No
11 – Apple Distribution Intl Ltd No. This optimization is not needed.

Feedback Form 9: Should WT-3.2 be in the scope of Rel-19?

1 – Nokia UK yes but it lower priority of e.g. WT 1.1 for the ecosystem.
2 – LG Electronics France No. Pending NSSAI can be remove by AMF if needed.
3 – ZTE Corporation. No. The SA2 has agreed the CR in S2-2209943. It is not urgent to further enhance it.
4 – HuaWei Technologies Co. No. In general not necessary to enhance EPS for slicing at this stage.
5 – Ericsson LM No
6 – TELEFONICA S.A. No. it seems like a "nice-to-have" feature; with low-priority
7 – InterDigital No
8 – QUALCOMM Europe Inc. - Italy This is an unnecessary optimization for corner cases. No

9 – Deutsche Telekom AG No
10 – Apple Distribution Intl Ltd No. This optimization is not needed.

Feedback Form 10: Should WT-4 be in the scope of Rel-19?

1 – MediaTek Inc. No. This is already discussed in past releases. We do not see much change since then.
2 – Nokia UK yes, many features are relying on insight on slice priority for a UE and the slice priority cannot be the same for all UEs, hence this deserves study. Potential features impacted are e.g. target NSSAI, NSSRG handling, NSAG priority setting...
3 – LG Electronics France In previous releases, slice priority was discussed many times, but nothing was agreeable. In addition, objective is too open and cannot determine work scope.
4 – ZTE Corporation. No. There was a lot of discussion in both GSMA, SA1 and SA2 in previous release but could not reach any agreement. It would be waste of time to discuss it again in R19.
5 – HuaWei Technologies Co. No. Has been discussed in SA1&SA2 and not approved due to no requirement. No need to reopen.
6 – Guangdong OPPO Mobile Telecom. No. It has been discussed for several times.
7 – Ericsson LM No
8 – TELEFONICA S.A. No. We do not believe this is useful and do not see the need to standardize it.
9 – InterDigital Yes, but perhaps with lower priority as e.g., WT1
10 – QUALCOMM Europe Inc. - Italy No. This has been discussed already and not only there are no approved requirements, it was decided it is not of interest. Let's allow it to rest in peace.

11 – Deutsche Telekom AG No
12 – Apple Distribution Intl Ltd No. Based on previous discussions, this will not result in any conclusions.

Feedback Form 11: Should WT-5 be in the scope of Rel-19?

1 – MediaTek Inc. No. This looks more like a solution statement. The WT description should clarify the problem to be addressed.
2 – Nokia UK NO. if it is upgrading the Target NSSAI as already proposed in a TEI-19, maybe that route should be pursued.
3 – LG Electronics France Objective is not clear. What is the difference compared to Target NSSAI?
4 – ZTE Corporation. The objective is to study how to update the Target NSSAI when the UE is in connected state. As commented by Mediatek, this is solution oriented so it can be submitted as TEI-19.
5 – HuaWei Technologies Co. Need to clarify the scenario. What is the relationship to slicing? Slicing procedures should not be involved at such level (e.g. a general MM procedure).
6 – Ericsson LM Yes, it should be possible to send target NSSAI after gNB change, but that should be part of Rel-18
7 – TELEFONICA S.A. It needs more clarification. We do not understand neither the motivation nor what situations it could apply to
8 – Guangdong OPPO Mobile Telecom. clarify the scenario where is to required to update the target NSSAI.
9 – InterDigital No, the justification is not clear, why can this not be done already using Rel.18 functionality?

10 – QUALCOMM Europe Inc. - Italy Not clear what the technical issue is and to what scenarios it applies, and as such NO.
11 – Deutsche Telekom AG Should be solved in Release 18
12 – Apple Distribution Intl Ltd No. Unclear what is the objective in addition to Rel-18.

Feedback Form 12: Should WT-6 be in the scope of Rel-19?

1 – Nokia UK Not a high priority feature to enforce this. So we could work on this if a solution exists as TEI-19/20. Or trust the UE to enforce NSSRG until a future release.
2 – LG Electronics France No. UE can enforce NSSRG. No need for additional solution.
3 – ZTE Corporation. This WT is about the following NOTE in 23.501 NOTE 1: The AMF enforces NSSRG only for the access(es) the UE registered to the AMF. When the UE is registered to different PLMNs over 3GPP access and non-3GPP access, the AMF in one access cannot enforce a common NSSRG over both accesses. This is not urgent.
4 – HuaWei Technologies Co. NSSRG feature should not impact non-supporting UEs. It somehow goes against separation of slicing between access types. But if the intention is to reuse current/similar mechanism of UDM to reject some requests, it could be consider as TEI-19.
5 – Ericsson LM No, enough with UE following the standard
6 – TELEFONICA S.A. Yes. Interesting, although we hesitate whether to include it in this release. Not essential in the short term
7 – Guangdong OPPO Mobile Telecom. Not essential for R19.
8 – QUALCOMM Europe Inc. - Italy Not needed for rel. 19

9 – InterDigital No, the current functionality already indicates that the "UE shall only request S-NSSAI across Access Types, regardless of whether the same PLMN or different PLMNs are used", what's missing?
10 – Deutsche Telekom AG Not needed in Rel 19
11 – Apple Distribution Intl Ltd Maybe. Even if existing solution has a limitation, there is probably no urgency to resolve this.

Feedback Form 13: Should WT-7 be in the scope of Rel-19?

1 – Nokia UK YES but could be done in scope of Dual Steer work if the work progresses, and depending on rel-18 outcome of slice aware PLMN selection
2 – LG Electronics France No. This is in the scope of DualSteer work.
3 – ZTE Corporation. No, agree with others this is not part of this study
4 – HuaWei Technologies Co. NO. This should not be in a study for slicing. This requires a study on its own, requires multiple registration and so on. The value is still not demonstrated.
5 – Orange Yes, should be part of R19.
6 – Ericsson LM No, enough to study related slicing aspects as part of dual steer
7 – TELEFONICA S.A. No. It should be out of the scope of this study.
8 – Guangdong OPPO Mobile Telecom. not essential for Rel-19.

9 – QUALCOMM Europe Inc. - Italy not in scope of slicing
10 – InterDigital No, not is scope of this study.
11 – QUALCOMM Europe Inc. - Italy To be clear, this should be in scope of dual-steer
12 – Apple Distribution Intl Ltd No. This is in the scope of DualSteer.

Feedback Form 14: Should WT-8 be in the scope of Rel-19?

1 – Nokia UK Yes. OAM solutions may not be open (i.e. require vendor specific solutions) and lead to interop issues.
2 – LG Electronics France No. Current system works well without such enhancements.
3 – ZTE Corporation. This is also solution oriented WT. Propose to submit as TEI-19.
4 – HuaWei Technologies Co. No. Cell level information is questionable as now it is controlled by resource. There is no good value to support such mechanism at this stage.
5 – Ericsson LM No
6 – TELEFONICA S.A. No. It is low priority.
7 – Guangdong OPPO Mobile Telecom. Yes, cell level information might be helpful
8 – QUALCOMM Europe Inc. - Italy NO

9 – InterDigital No
10 – Apple Distribution Intl Ltd This may be subject to a TEI19 WID.

Feedback Form 15: Should WT-9 be in the scope of Rel-19?

1 – Nokia UK This is an interesting concept but we perceive we can achieve this by management plane. can be a SA5 issue? Also this may be a lower priority issue given the clear time constraints.
2 – LG Electronics France Use case is not clear. Why UE-Slice-MBR needs to be dynamically updated?
3 – ZTE Corporation. This is similar concept of UE-AMBR which can further adjusted by the DN-AAA during the secondary authentication procedure. However. This is also solution oriented, so it can be submitted as TEI-19.
4 – HuaWei Technologies Co. Slice MBR is per slice and should not be impacted dynamicly by the network slice consumer. If the intention is UE-Slice-MBR, it could be a TEI-19 as ZTE also proposed.
5 – Ericsson LM It seems UE-Slice-MBR is not following handling of other QoS related parameters i.e. ok with handling UE-Slice-MBR as other Subscribed QoS related IEs with ability for PCF to be able to change the value based on policies. As minor it can be TEI19 topic
6 – TELEFONICA S.A. Yes. Very interesting feature to study.
7 – Guangdong OPPO Mobile Telecom. It can be TEI19 as ZTE proposed.
8 – QUALCOMM Europe Inc. - Italy NO as part of the study, if a TEI19 it needs to be discussed separately
9 – InterDigital No, it might be a TEI19 as others have proposed.

10 – Orange Use case is not clear. Why UE-Slice-MBR needs to be dynamically updated?
11 – Apple Distribution Intl Ltd This may be subject to a TEI19 WID.

Feedback Form 16: Should WT-10 be in the scope of Rel-19?

1 – LG Electronics France Objective is not clear. NSSF already provides mapping information to AMF. What needs to be enhanced compared to existing mechanism?
2 – ZTE Corporation. When the mapping information is updated in the NSSF, it is not possible to update the AMF with the latest mapping. This solution oriented so it can be submitted as TEI-19
3 – HuaWei Technologies Co. No. Slice mapping in NSSF is not required to be static, or always the same for different UE, so makes no sense to notify changes. This is NSSF internal implementation logic.
4 – Ericsson LM No
5 – TELEFONICA S.A. No.
6 – QUALCOMM Europe Inc. - Italy NO
7 – InterDigital No
8 – Deutsche Telekom AG No
9 – Orange No
10 – Apple Distribution Intl Ltd No

2.2 Additional Work Tasks

As well as the initial set of Work Tasks in section 2.1 companies can request to add additional Work Tasks. The naming of these additional Work Tasks should follow the format: WT-company name-# (eg WT-Samsung-1) so that other participants can reference them.

Feedback Form 17: Are there any additional Work Tasks that should be part of Rel-19?

3 Additional comments

Any additional input can be provided here.

Feedback Form 18: Additional comments

4 Summary

12 companies provide the feedback on each working task. The following are the summary of the responses to the question on whether WT should be in the scope of Rel-19.

WT#1 Study whether and how to enhance the network slice handling for PDN connection in EPC to

1. support of NSSAA in EPS
2. support of NSSRG constraints in EPS
3. support of network slice Replacement in EPC

Table 1:

WT#	Yes with high priority	Yes with low priority	Merged with other WT	No	Need more clarification	TEI-19
WT#1.1	Nokia			LGE, OPPO, Huawei, Ericsson, Telefonica, Dish Network, Deutsche Telecom AG, Qualcomm, Apple		

WT#1.2		Nokia		LGE, ZTE, OPPO, Huawei, Ericsson, Telefonica, Dish Network, Deutsche Telecom AG, Qualcomm, Apple		LGE
WT#1.3	ZTE	Nokia		LGE, OPPO, Huawei, Ericsson, Telefonica, Dish Network, Deutsche Telecom AG, Qualcomm, Orange, Apple		

Moderator Proposal 1: WT#1 is not included in the SID.

WT#2: Study whether and how to make the network slice selection network controlled:

1. study how to enable selection of a network slice based on the notification from the network side
2. study how to enable trusted 3rd party to trigger the notification for the slice selection
3. study how to enhance existing PDU session modification procedure to enable switching PDU session between the slices
4. study how to enhance the EPC interworking to support the network controlled network slice selection

Table 2:

WT#	Yes with high priority	Yes with low priority	Merged with other WT	No	Need more clarification	TEI-19?

WT#2.1	KDDI, Nokia, ZTE, Orange, Ericsson, Dish Network, Telefonica, InterDigital			OPPO, Apple	LGE, Huawei, Ericsson, Dish Network, InterDigital, Qualcomm,	
WT#2.2	KDDI, Nokia, ZTE, Orange, Ericsson, Telefonica,		Nokia, ZTE, Ericsson, InterDigital	LGE, Huawei, OPPO, Apple,	LGE, Huawei, Ericsson, Dish Network, Qualcomm	
WT#2.3	KDDI, Nokia, ZTE, Orange, Telefonica,		Nokia, ZTE, Ericsson, Dish Network, Qualcomm,	OPPO, Apple	LGE, Huawei, OPPO, Ericsson, Qualcomm	
WT#2.4	KDDI, ZTE, Orange, Dish Network, Telefonica, Interdigital,		Nokia, ZTE,	LGE, Huawei, OPPO, Qualcomm, Apple	Ericsson, InterDigital	

Moderator Proposal 2: WT#2 is included in SID. Further discuss whether to merge into single WT during the F2F meeting.

WT#3 Study whether and how to enhance NSSAA feature to

1. support the UE deregistration status awareness in the NSSAAF
2. remove the S-NSSAI from the Pending NSSAI in the UE if the NSSAA for S-NSSAI success but the S-NSSAI does not share common NSSRG of the Allowed NSSA support Network Slice Replacement in EPC

Table 3:

WT#	Yes with high priority	Yes with low priority	Merged with other WT	No	Need more clarification	TEI-19?

WT#3.1	ZTE			Nokia, OPPO, Ericsson, Telefonica, InterDigital, Qualcomm, Deutsche Telecom AG, Apple	LGE, Huawei	
WT#3.2		Nokia		LGE, ZTE, Huawei, Ericsson, Telefonica, InterDigital, Qualcomm, Deutsche Telecom AG, Apple		

Moderator Proposal 3: WT#3 is not included in the SID proposal.

WT#4 Study whether and how to support per UE network slice priorities e.g. to support target NSSAI definition.

Table 4:

WT#	Yes with high priority	Yes with low priority	Merged with other WT	No	Need more clarification	TEI-19?
WT#4	Nokia	InterDigital		Mediatek, ZTE, Huawei, OPPO, Ericsson, Telefonica, Qualcomm, Deutsche Telecom AG, Apple	LGE	

Moderator Proposal 4: WT#4 is not included in the SID proposal.

WT#5: Study whether and how to support the CN to trigger the redirection/handover of the UE to different cell after UE mobility in connected mode.

Table 5:

WT#	Yes with high priority	Yes with low priority	Merged with other WT	No	Need more clarification	TEI-19?
WT#5	Ericsson, Deutsche Telecom AG,	InterDigital		MediaTek, Nokia, Qualcomm, Apple	LGE, Huawei, Telefonica, OPPO, InterDigital	ZTE, Nokia

Moderator Proposal 5: WT#5 is not included in the R19 SID. Whether it can be resolved in R18 or TEI-19 can be different discussion per company contribution.

WT#6: Study whether and how to support NSSRG restriction across different access types over different PLMNs.

Table 6:

WT#	Yes with high priority	Yes with low priority	Merged with other WT	No	Need more clarification	TEI-19?
WT#6		Telefonica, Apple		Nokia, LGE, ZTE, Ericsson, OPPO, Qualcomm, InterDigital, Deutsche Telekom AG,		Huawei, Nokia

Moderator Proposal 6: WT#6 is not included in the R19 SID.

WT#7: Study whether and how to allow simultaneous roaming in two VPLMNs

Table 7:

WT#	Yes with high priority	Yes with low priority	Merged with other WT	No	Need more clarification	TEI-19?
WT#7	Nokia, Orange			LGE, ZTE, Huawei, Ericsson, Telefonica, OPPO, Qualcomm, InterDigital, Apple.		

Moderator Proposal 7: WT#7 is not included in the R19 SID.

WT#8: Study whether and how to support open mechanisms to indicate TA and cell level topology to the AMF, including information on availability of network slices at cell level.

Table 8:

WT#	Yes with high priority	Yes with low priority	Merged with other WT	No	Need more clarification	TEI-19?
WT#8	Nokia, OPPO,			LGE, Huawei, Ericsson, Telefonica, Qualcomm, InterDigital		ZTE, AP- PLE

Moderator Proposal 8: WT#8 is not included in the R19 SID.

WT#9: Study whether and how to support dynamical Slice MBR provisioning from the network slice consumer.

Table 9:

WT#	Yes with high priority	Yes with low priority	Merged with other WT	No	Need more clarification	TEI-19?
WT#9	Telefonica	Nokia			LGE, Orange	ZTE, Huawei, Ericsson, OPPO, Qualcomm InterDigital, Apple

Moderator Proposal 9: WT#9 is not included in the R19 SID. It can be submitted as TEI-19.

WT#10: Study whether and how to support slice mapping information notification from NSSF

Table 10:

WT#	Yes with high priority	Yes with low priority	Merged with other WT	No	Need more clarification	TEI-19?
WT#10				Huawei, Ericsson, Telefonica, Qualcomm, InterDigital, Deutsche Telekom AG, Orange, Apple	LGE	ZTE

Moderator Proposal 10: WT#10 is not included in the R19 SID.

There is no feedback on “Are there any additional Work Tasks that should be part of Rel-19“ and ”Additional Comments”.

5 Moderator Proposal

Proposal 1: WT#1 is not included in the SID.

Proposal 2: WT#2 is included in SID. Further discuss whether to merge into single WT during the F2F meeting.

Proposal 3: WT#3 is not included in the SID proposal.

Proposal 4: WT#4 is not included in the SID proposal.

Proposal 5: WT#5 is not included in the R19 SID. Whether it can be resolved in R18 or TEI-19 can be different discussion per company contribution.

Proposal 6: WT#6 is not included in the R19 SID.

Proposal 7: WT#7 is not included in the R19 SID.

Proposal 8: WT#8 is not included in the R19 SID.

Proposal 9: WT#9 is not included in the R19 SID. It can be submitted as TEI-19.

Proposal 10: WT#10 is not included in the R19 SID.

