**NWM questionary for FS\_5GSAT\_Ph3\_ARCH – v0**

# KI#1

To compare principles inherent to the different provided solutions, companies are kindly requested to answer to the following questions, indicating for given solution number how does the solution answers to it. Reference to TR23.700-29 0.5.0 descriptive part of the solution is welcome if any.

KI1\_Q1: Does solution with IWK/Proxy has RAN3 or SA2 standard impact? if yes, what is the impact? if not, should the solution description be included in the informative annex?

KI1\_Q2: Does the scenario of hard feeder link switch can be addressed by existing procedure without normative work? if not, what is the standard impact?

KI1\_Q3: Do new RAT types need to be introduced for regenerative payload satellite access? if yes, what is the motivation?

# KI#2

It is proposed to evaluate the support of Store & Forward Satellite operation (key issue#2) following the principles below:

1. Support of single and multi-satellites.
2. Support of Roaming (the definition of roaming in S&F Satellite operation shall be clarified).
3. Support of MO/MT SMS service, CIoT CP/UP.
4. UE location verification
5. Security considerations (in coordination with SA3)
6. UE power consumption
7. Delay for a UE to complete the attach procedure and for a registered UE to access service
8. Support of Legacy UEs (Rel-17 & Rel-18 UEs)
9. Minimal impact on the existing 3GPP procedures
10. Whether Proprietary NFs are needed to support S&F
11. Compute and storage requirements on satellite considering limitation of satellite payload, which can be estimated based on NFs deployed on the satellite.
12. Management of the transition between phases where feeder link is available or not.

To compare principles inherent to the different provided solutions, companies are kindly requested to answer to the following questions, indicating for given solution number how does the solution answers to it. Reference to TR23.700-29 0.5.0 descriptive part of the solution is welcome if any.

KI2\_Q1:among the 12 principles listed, identify the principles that are essential and critical and the ones that are secondary.

KI2\_Q2: for solution X, please indicate if the solution support of single and multi-satellites or what are the restrictions if any.

KI2\_Q3: for solution X please indicate if the solution supports Roaming and explain which roaming definition in S&F Satellite operation is considered.

KI2\_Q4: for solution X, please indicate if solution supports MO/MT SMS service, CIoT CP/UP data exchange and additional types of data exchanges.

KI2\_Q5: for solution X, please indicate if, and how, the solution supports UE location verification.

KI2\_Q6: for solution X, which are security considerations and hypothesis (in coordination with SA3)?

KI2\_Q7: for solution X, is there any specific principles to optimize UE power consumption?

KI2\_Q8: for solution X, what is the delay for a UE to complete the attach procedure and for a registered UE to access service?

KI2\_Q9: does solution X supports of legacy UEs (Rel-17 & Rel-18 UEs)

KI2\_Q10: for solution X, which existing 3GPP procedures are impacted?

KI2\_Q11: does solution X requires proprietary NFs to support S&F?

KI2\_Q12: How does solution X handles compute and storage requirements on satellite considering limitation of satellite payload? (which can be estimated based on NFs deployed on the satellite).

KI2\_Q13: For solution X, does management of the transition between phases where feeder link is available or not is considered and how?

# KI#3

The list of evaluation criteria for KI#3 is the following:

* List of criteria used to determine whether UE-Satellite-UE can be activated and how the P-CSCF obtains the required information to take the decision.
* Additional parameters the IMS of the originating network needs to exchange with the IMS of the terminating network (if different)
* How the solution deals with lawful interception / data retention
* How the solution deals with change of serving satellite (user plane nodes relocation)
* Subscription constraints (do the two parties need to belong to the same HPLMN?)
* Support for IMS services other than voice/video (e.g. mission critical comms)
* Support UEs served with different interconnected satellites
* Deployment constrains (e.g. single SMF? single PCF? single P-CSCF?)

To compare principles inherent to the different provided solutions, companies are kindly requested to answer to the following questions, indicating for given solution number how does the solution answers to it. Reference to TR23.700-29 0.5.0 descriptive part of the solution is welcome if any.

KI3\_Q1: please provide for solution X the list of criteria used to determine whether UE-Satellite-UE can be activated and how the P-CSCF obtains the required information to take the decision.

KI3\_Q2: please provide for solution X Additional parameters the IMS of the originating network needs to exchange with the IMS of the terminating network (if different)

KI3\_Q3: For solution X, please explain how the solution deals with lawful interception / data retention.

KI3\_Q4: For solution X, please explain how the solution deals with change of serving satellite (user plane nodes relocation)

KI3\_Q5: For solution X, what are hypothesis on subscription constraints (do the two parties need to belong to the same HPLMN?)

KI3\_Q6: For solution X, does the solution supports for IMS services other than voice/video (e.g. mission critical comms)

KI3\_Q7: For solution X, does the solution supports UEs served with different interconnected satellites.

KI3\_Q8: For solution X, what are the deployment constrains (e.g. single SMF? single PCF? single P-CSCF?)