

Consideration of additional requirements for Next Generation Access Technologies

Orange

Additional requirements to be added to the TR

We propose to add the following requirements to TR 38.913 skeleton

Proposal 1: Resilience and High availability requirements

- To be added to the Performance requirements section 7.2

Proposal 2: Backhaul and signaling optimization requirements

- To be added to the Operation requirement section 10

Definition of Resilience and High Availability

Proposal 1:

Resilience and high availability will be essential to ensure minimal service is available to critical infrastructures or service providers in case of disaster. Also, 5G networks will increasingly be used as the primary means for emergency communication and Public Safety for day to day operations.

The Next Generation Radio Technology should enable 99.999% network availability, including robustness against climatic events and guaranteed services at low energy consumption for critical infrastructures (e.g., hospitals, network management). The level of network availability to be effectively provided is up to the operator.

We propose to agree on the following definition of Resilience and High availability (reference: NGMN White Paper) and include it in the TR:

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7.2.N Resilience and High Availability:

The network availability is characterized by its availability rate Z , defined as follows: the network is available for the targeted communication in X % of the locations where the network is deployed and Y % of the time.

Resilience, i.e. the capability of the network to recover from failures, will be an important feature to maintain high availability rates. In particular, remote (self-) healing of equipment should be possible.

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Backhaul and signaling optimization requirements

Proposal 2:

Backhaul and signaling optimisation requirements, is a necessary requirement for several use cases under eMBB (e.g. Ultra low cost Networks) or mMTC applications

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10.N Backhaul and signaling optimization requirements:

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