Key Decisions Required for the 3GPP Phase 1 to Support Early Standardized Deployments

3GPP TSG RAN PLENARY #73

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AT&T, Qualcomm, Ericsson,
NTT Docomo, Bell Mobility, Rogers, Telus

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BACKGROUND & PROPOSAL

In light of the agreements on Phase 1, it is important to be perfectly clear which architectures are planning to be deployed and transitioned over time in concert with 5G Phase 1 *particularly since the purpose of the revised Phase 1 timeline in SP-160465 is to support standardized early trial and/or general market deployments that many operators are planning for.*

The proponent companies believe 3GPP RAN and SA must complete the Architecture Options indicated in Table 1 by certain key dates in order for product development to meet the market deployments.

<u>3GPP must take advance decisions in TSG RAN Plenary #73 to agree on delivery timelines for Options 3 and 7</u> as indicated below. *This needs to be done now and not delayed until the March 2017 checkpoint, which is too late.*

These important advance decisions:

1. **Resolve and clarify the *"Completion Target TBD"* currently in Box 5 on the timeline in SP-160465**
2. **Permit operators planning initial/early/expanded deployments to have certainty (since these deployments are already within corporate budget planning cycles)**
3. **Permit manufacturers and technology developers to proceed with their product development activities knowing the defined delivery timing**
4. **Allow for orderly planning, coordination, and timely completion of the work in 3GPP RAN & SA**

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Deployment Perspectives:

TABLE 1

Deployment Type under Phase 1 **(as endorsed in RAN/SA #72)**	**Architecture**	**Stage 3 Freeze** **(SP-160465 Box 5 & Box 6)**	**General Industry Anticipated Initial Product Timing & Market Launch**
Initial Market Trial Deployment 5G Standardized (Option 3 based)	Option 3	**December 2017**	Early 2018 (early release version)
Early General Market Deployment 5G Standardized (Option 3 based)	Option 3	**December 2017**	Mid-Late 2018
Early General Market Deployment 5G Standardized (Option 7 based)	Option 3 *and/or* Option 7	**June 2018** (Option 7)	Early-Mid 2019 (Option 7)

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Key Decisions Needed Now - 3GPP Standards Timeline (for Phase 1 SP-160465)

RAN #73 Establishment of Timing for Option 3 & 7 Completion

2. TSG-SA#74, Dec/2016:
NexGen TR completion
Approval of SA2 WID

1. TSG-RAN#73, September 2016:
5G NR Requirements TR completion

7. TSG#80, June 2018: Release 15 stage 3 freeze for NR and NexGen, including Standalone. **(Options 2/4)**

6. RAN#78/RAN#79: Stage-3 freeze for Non-Standalone higher layers (including components common with standalone). Completion ~~target TBD~~. **Dec'2017 (Opt 3) June'2018 (Opt 7)**

4. TSG-SA#77 or TSG-SA#78:
NexGen stage-2 freeze.

Dec'17 Option 3 Complete

Jun'18 Option 7 Complete

Note:
To support early standardized deployments under Phase 1, the required date for completion of the architecture options (both Box 5 & 6) is:
- **Option 3 by December 2017**
- **Option 7 by June 2018.**

2016 | 2017 | 2018

3. CHECKPOINT: TSG#75: March 2017:
- Completion of NR SI with corresponding performance evaluation and concepts;
- Approval of RAN WID(s);
- Report from RAN1/RAN2/RAN3/RAN4/SA2 on fwd compatibility of NSA and SA NR;
- Report from SA2 on migration;
- SA and CT timeline coordination;
- Reconfirmation of NR & NexGen timeplan, including completion target for NSA higher layer components (box 6)

5. TSG-RAN#78, December 2017:
- Stage 3 freeze of L1/L2 for common aspects of NSA (focused on licensed bands) and SA NR;
- Principles agreed for SA-specific L1/L2 components.

Key Decision / Update for RAN Endorsed Work Plan

To update the RAN timeline by establishing the following dates on the illustration depicted in RP-161253 and endorse in RAN#73.

Milestone 6 – TBD to be changed to:

- **Deployment Option 3 = December 2017**
- **Deployment Option 7 = June 2018**
- **Addition of relevant timeline markers for milestone 6**

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Backup - 3GPP Reference Documents

RP-161253

RAN Schedule & Scope

RP-161266

Deployment Scenarios

RP-161269

RAN Tasks

SP-160465

RAN_SA 5G Rel-15 Timeline

R3-161772

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