Summary after TSG-RAN#80

3GPP webinar – 03 July 2018

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The following presentation will cover a very specific area. It isn’t intended to be an intro to 3GPP, or a detailed piece on NR, or 5G, but rather a status report after the last RAN meeting… Working on NR and 5G!

Balazs will talk for 20 minutes about the RAN#80 meeting, held in La Jolla, USA – June 11 – 14, 2018.

Then we will have time for Q&A, so please submit short questions.

The webinar will stay on BrightTalk, but there will also be a story posted on www.3gpp.org after the webinar – with links to the documents referred to here.

Kevin Flynn
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Outline

5G is here...!
  • Key milestones in Release 15: achievements and upcoming milestones

5G moving forward
  • Key features planned for Release 16
5G Non-Standalone completed in Dec/2017
5G Standalone completed in June/2018
<table>
<thead>
<tr>
<th>Year</th>
<th>Q1</th>
<th>Q2</th>
<th>Q3</th>
<th>Q4</th>
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<th>Q2</th>
<th>Q3</th>
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<td>2017</td>
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<td>2018</td>
<td>Rel-15 NSA (option-3) freeze</td>
<td>Rel-15 SA (option-2) freeze</td>
<td>Rel-15 SA (option-2) ASN.1</td>
<td>Rel-15 late drop freeze</td>
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<td>2019</td>
<td>Rel-15 NSA (option-3) ASN.1</td>
<td>Rel-15 SA (option-2) ASN.1</td>
<td>Rel-15 late drop ASN.1</td>
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<td>2020</td>
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<td>Rel-15 freeze</td>
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**Timeline**

- **Rel-16 Study phase**
- **Rel-16 Study and Normative phase**
- **ASN.1**

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Timeline in detail

Rel-15 schedule was unchanged

- Non-standalone 5G NR: ASN.1 Freeze completed in March 2018
- Standalone 5G NR: ASN.1 Freeze scheduled for September 2018
- LTE with 5G Core: ASN.1 Freeze scheduled for September 2018

Rel-16 schedule unchanged

- Approval of the main package of SIs/WIs done in June/2018
  - Approval of further urgent items at a later stage shall still be possible
- Completion target dates unchanged
  - Completion: December/2019
  - ASN.1 freeze: March/2020
Migration options in Rel-15

“Late drop” introduced for Rel-15 that follows Rel-15 completion by 6 months
- The late Rel-15 ASN.1 drop is to be strictly backwards compatible
- The late drop is to exclusively contain outstanding NR architecture options
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*Migration options in Rel-15*

*eLTE-NR Dual Connectivity with 5GC (Option 4)*
Migration options in Rel-15

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- The late Rel-15 ASN.1 drop is to be strictly backwards compatible

The late drop is to exclusively contain outstanding NR architecture options

NR-NR Dual Connectivity

5GC

NG-RAN

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5G moving forward
3GPP Release 16
Release 16 – 5G Expansion

- 5G Vehicle to X (V2X)
- 5G Industrial IoT
- 5G URLLC enhancements
- 5G for Unlicensed spectrum operation
- 5G for Satellite
- 5G above 52.6GHz

5G Expansion

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Release 16 – 5G Efficiency

- Interference Mitigation
- 5G SON & Big Data
- 5G MIMO enhancements
- 5G Location and positioning enhancements
- 5G Power Consumption improvements
- Dual Connectivity enhancements
- Device capabilities exchange
- Non-orthogonal Multiple Access (NOMA)

5G Efficiency
Balance

5G Expansion

5G Efficiency
Thank you!

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