Electronics and
Telecommunications
Research
Institute

O-RAN Global PlugFest Fall 2025

- Korea OTIC 추진계획 -



2025년 8월 11일

발표자 : 최 용 훈

목차

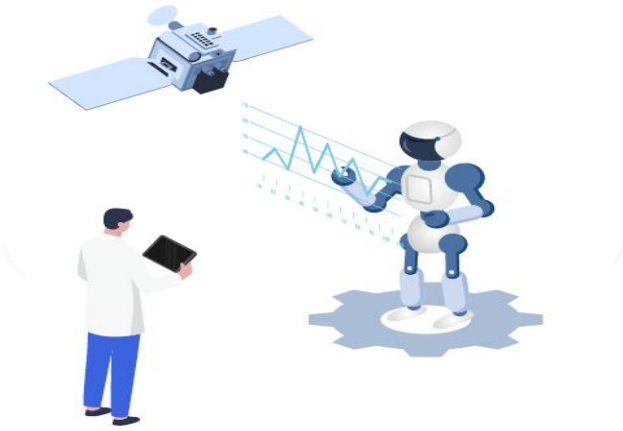
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PlugFest Time Plan

- Call for Participation : **Aug. 11 ~ Aug 22**
- PlugFest Activities : Aug. 25 ~ Nov. 28
- Review Meeting : Oct. 7 ~ Oct. 10
- Presentation : Dec. 1 ~ Dec. 5

PlugFest Themes

- O-RAN System Testing with Layer 1 Acceleration
- Demonstrate consistent and repeatable open fronthaul testing in multiple labs
- O-RAN Energy Consumption, Efficiency and Savings Testing
- O-RAN E2E Deployment Templates, DevOps, and Test Automation
- O-RAN White-box Hardware diversity ecosystem
- Open Fronthaul Transport Testing with multiple O-RUs

※ **Each venue must select one, or more, of the approved PlugFest themes and must work towards the stated theme accomplishments**

2. Call for hosting of Korea OTIC

Submitted information of Korea OTIC

- **Name of PlugFest venue** : Korea OTIC

- **Name of host(s)** : ETRI, TTA, KT, LG Uplus, SK Telecom

- **PlugFest lab(s), incl. the location** :
  - ETRI, Daejeon, South Korea
  - TTA, Seongnam City, South Korea
  - KT, NIA Global Center, Jeju Island, South Korea
  - LG Uplus O-RAN Commercial Field, Gumi City, South Korea
  - SK Telecom 6G & Open RAN Test lab, Seongnam City, South Korea

- **Single point of contact – name, e-mail, phone** :
  - Dr. Yonghoon Choi, ychoi@etri.re.kr, +82-010-3844-2940

2. Call for hosting of Korea OTIC

❑ Submitted information of Korea OTIC

❍ Selected Plugfest Theme(s) – full name of PlugFest theme :

- O-RAN E2E Deployment Templates, DevOps, and Test Automation

❍ Specification of selected PlugFest Themes or other PlugFest activities not included in PlugFest themes

- O-RAN E2E Deployment Templates, DevOps, and Test Automation
  - . Performance/functional testing of 5G O-RAN E2E system
  - . Evaluation of SUT in an automated E2E test environment

  } **LG Uplus**

  - . Execution of E2E testing for multi-vendor O-DU and O-RU configurations

  } **SK Telecom**

- Commercial field trial of multi-RAT (5G/LTE) O-RAN system
  - . Demonstration of O-RAN in commercial 5G/LTE field environment
  - . Verification of O-DU and Multi-RAT O-RU
  - . Verification of O-RAN based 5G NR CA (for low-band refarming)

  } **KT**

❑ Rules of Engagement : O-RAN Alliance PlugFest

1. The O-RAN PlugFest will take place in different regions around the world following these Rules of Engagement.
2. As a requirement to participate in the O-RAN PlugFest, all hosts and participants (and their employees and independent contractors) must comply with these Rules of Engagement.
3. **Hosting or participation in the O-RAN PlugFest means agreement to these Rules of Engagement.**
4. The O-RAN PlugFest represents an opportunity for participating members and contributors of O-RAN within the O-RAN ecosystem to try out their products in a controlled, laboratory environment and to receive feedback with respect to the interoperability of those products within an O-RAN environment.
5. The O-RAN PlugFest is not a certification process, and participants will not be able to say that their hardware is “O-RAN Compliant” following the O-RAN PlugFest. Instead, participants should expect to receive interoperability data with respect to their products.
6. Any participant may learn some information as a result of the O-RAN PlugFest regarding the performance and/or features of other participants’ products. If you are not comfortable with other participants possibly learning information about your products, we recommend that you not participate in the O-RAN PlugFest.
7. Throughout the O-RAN PlugFest the general provisions of the membership agreement of each O-RAN member or contributor apply, in particular as regards confidentiality, copyright and publication of results.

❑ Rules of Engagement : O-RAN Alliance PlugFest

8. The O-RAN PlugFest will be hosted at a third party facility on behalf of O-RAN ALLIANCE. Neither O-RAN ALLIANCE nor the hosting organisation will have any liability to any participant, or any third party arising from or related to the O-RAN PlugFest including, without limitation, any publication of O-RAN PlugFest performance and/or interoperability data.
9. Having regard to the considerable commercial value of confidential information, all hosts and participants shall keep confidential and secret and not disclose to any third party confidential information.
10. Hosts or participants shall not release any press statement or disclose other information to any person relating to the O-RAN PlugFest activities without the prior written consent of O-RAN ALLIANCE to the content of such release and of any relevant participant, referred to in such release, to the content of the relevant part(s) of such release.
11. Following the conclusion of the O-RAN PlugFest, results from the O-RAN PlugFest will be published by O-RAN ALLIANCE; these results may contain information of a technical nature as to the interoperability of other test environment components including, without limitation, of other participants' products.
12. Until the publication of the official O-RAN PlugFest report no host or participant may publicly disclose any results of the O-RAN PlugFest.

❑ Rules of Engagement : O-RAN Alliance PlugFest

13. Only the final, official report issued by the O-RAN ALLIANCE shall be publicly quoted or reproduced. It is recommended that hosts or participants do not disseminate anecdotal information that cannot be verified or confirmed in the final, official report.
14. Hosts agree that in no event the results from the O-RAN PlugFest shall be used for comparative marketing purposes.
15. O-RAN ALLIANCE reserves the right to terminate any participant's continued participation in the O-RAN PlugFest or to refuse access to any future O-RAN PlugFest to any participant that has failed to comply with these Rules of Engagement.
16. Hosts or participant shall not assign or transfer any rights or obligations under this document without the prior written consent of O-RAN ALLIANCE.

3. Call for participation

❑ Open to Contributors of O-RAN Alliance

- ETRI hosts NIA pilot projects
  - Participation is in progress
    - . Open RAN P5G demonstration project
    - . Verification of open & intelligent solution services

- New ideas can be suggested
  - More participants can generate new idea & chance
  - You are very welcome to participate

- Great opportunity for promotion and marketing for SME
  - PR through o-ran.org
  - Attention from operators

Overview of PlugFest venue

Host(s):

- Korea OTIC



Lab(s) (incl. location):

- ETRI lab, Daejeon, South Korea (Organizer)
- TTA lab, Seongnam, South Korea

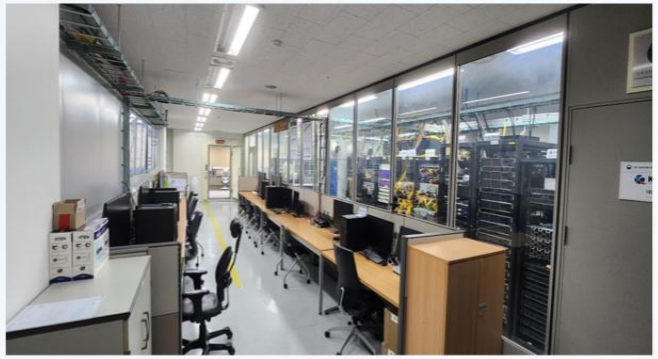
Participants:

LG, SAMJI, Wave Electronics, KEYSIGHT, VIAVI Solutions, ROHDE&SCHWARZ Make ideas real

High-level scope:

- O-RAN E2E Deployment Templates, DevOps, and Test Automation
  - Execution of the E2E testing based on TIFG test specifications
- *Demonstrate consistent and repeatable open fronthaul testing in multiple labs*
  - *RU Conformance*
- Open Fronthaul Transport Testing with multiple O-RUs
  - Multiple O-Rus (added)





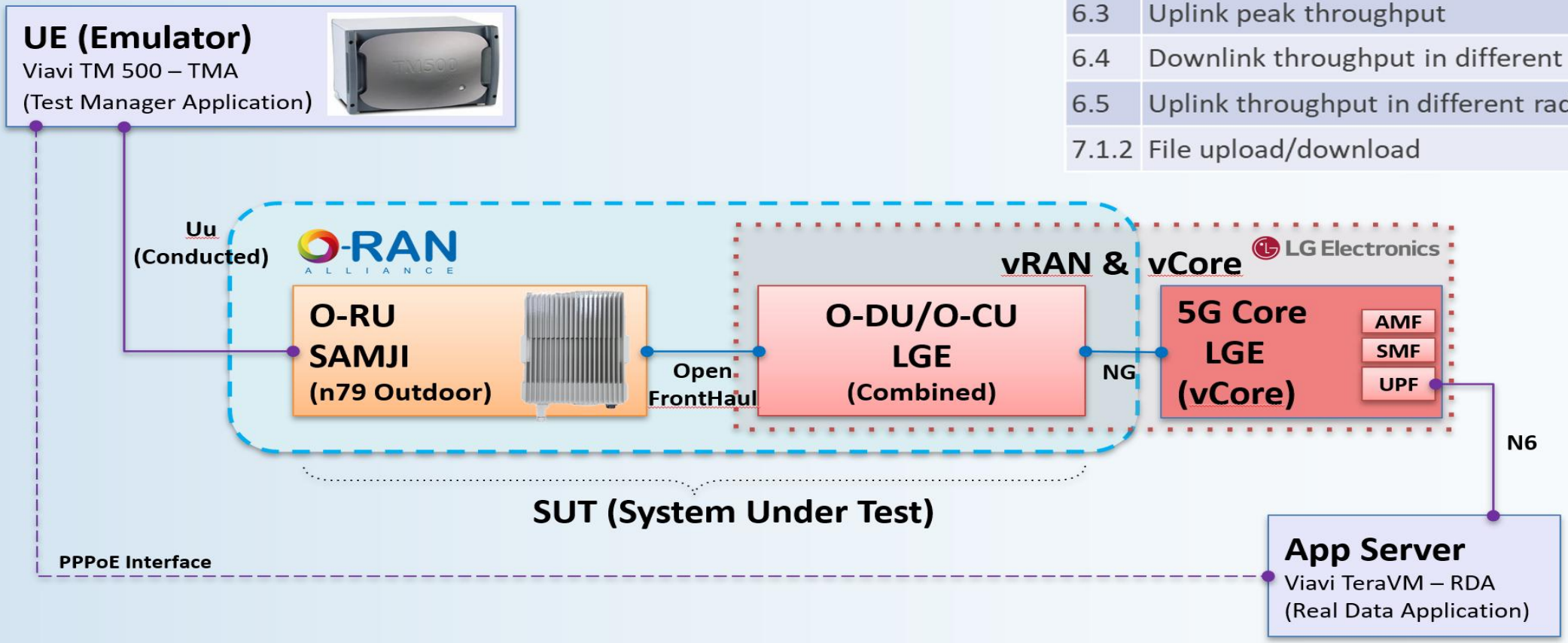


PlugFest scenarios (1/5)

PlugFest scenarios

- E2E test(NR) with Viavi TM500

	O-RAN.TIFG.E2E-TEST
5.3	5G SA registration and deregistration of single UE
6.2	Downlink peak throughput
6.3	Uplink peak throughput
6.4	Downlink throughput in different radio conditions
6.5	Uplink throughput in different radio conditions
7.1.2	File upload/download

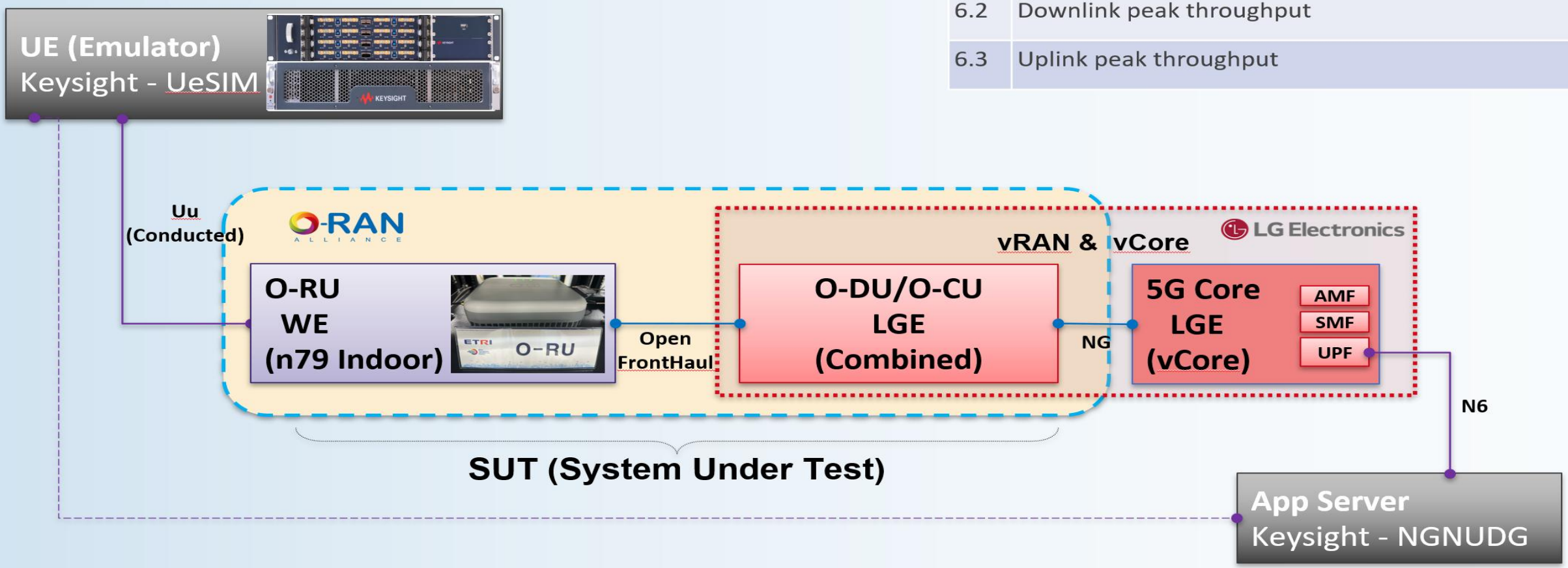


PlugFest scenarios (2/5)

PlugFest scenarios

- E2E test(NR) with Keysight UeSIM

	O-RAN.TIFG.E2E-Test5.3
5.3	5G SA registration and deregistration of single UE
6.2	Downlink peak throughput
6.3	Uplink peak throughput

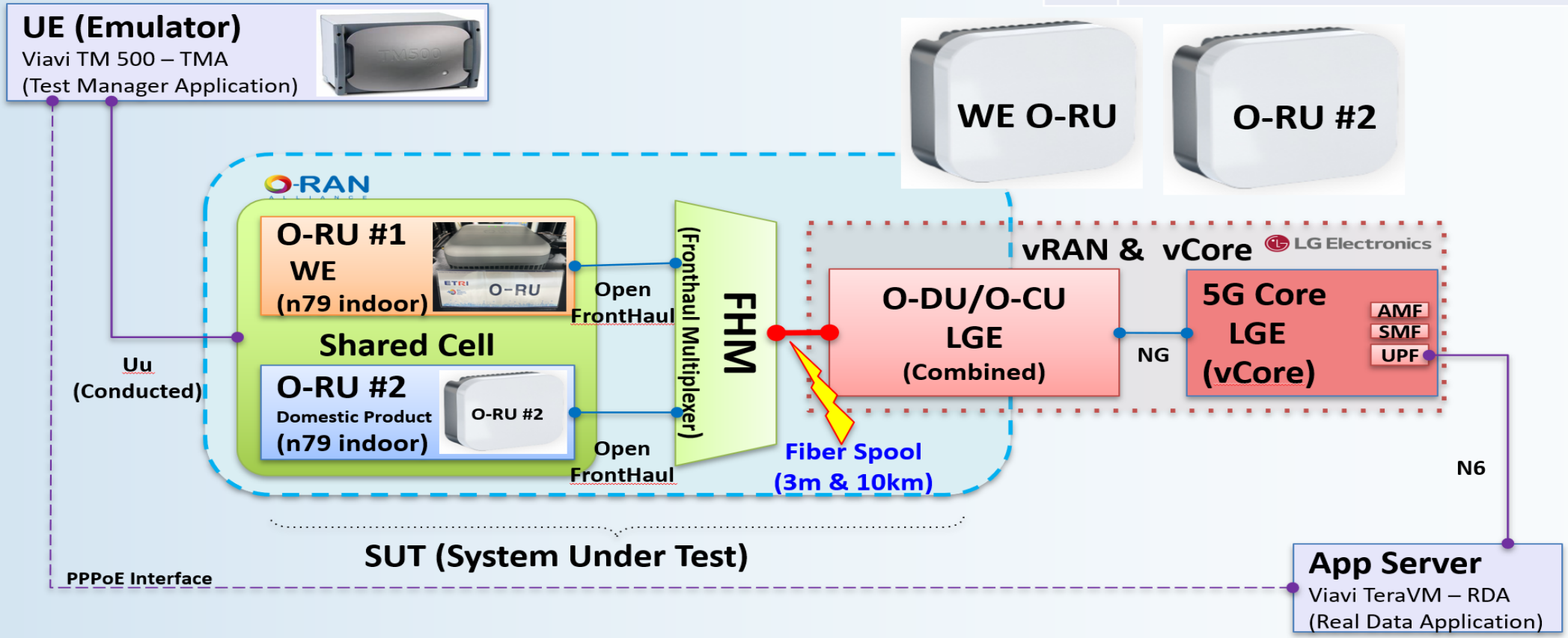


PlugFest scenarios (3/5)

PlugFest scenarios

- E2E Test (NR)– Shared Cell with multiple O-RU vendors

	O-RAN.TIFG.E2E-TEST
6.11	Impact of fronthaul latency on downlink peak throughput
6.12	Impact of fronthaul latency on uplink peak throughput

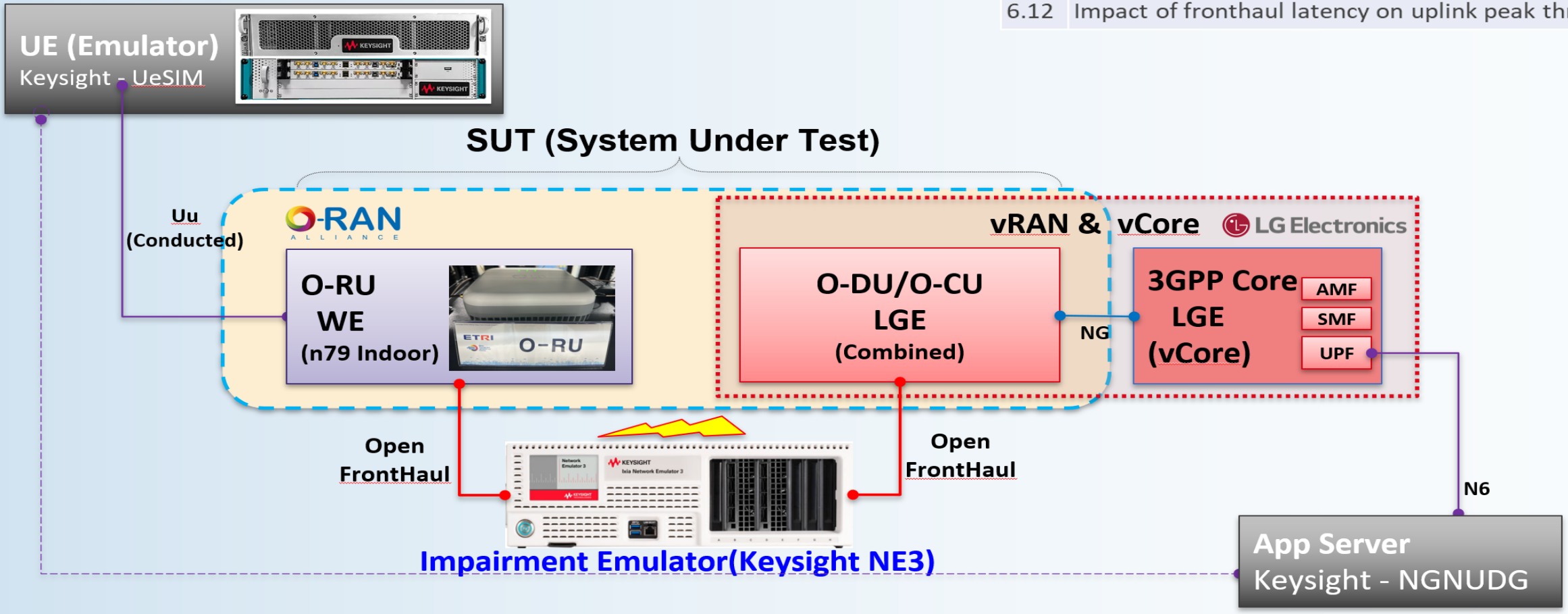


PlugFest scenarios (4/5)

PlugFest scenarios

- E2E test(NR) with Impairment Emulator

	O-RAN.TIFG.E2E-TEST
6.11	Impact of fronthaul latency on downlink peak throughput
6.12	Impact of fronthaul latency on uplink peak throughput

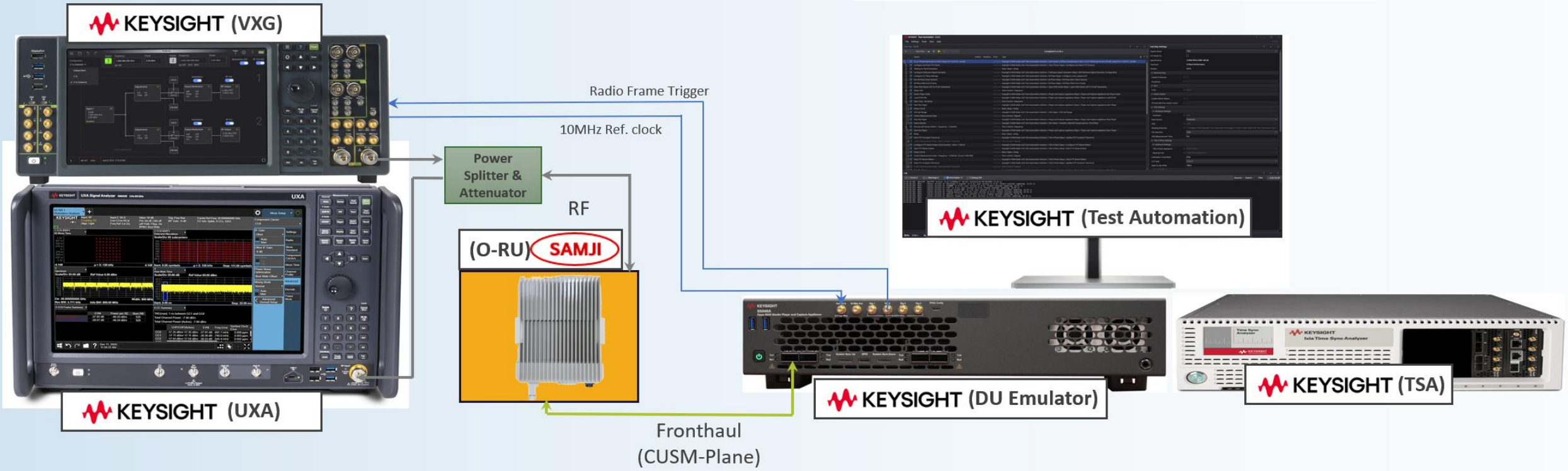


PlugFest scenarios (5/5)

PlugFest scenarios

- O-RU Conformance Test

	O-RU Conformance Test(WG4)
M-Plane	26 tests
CUS-Plane	11 tests




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THANK YOU