

Top 5 Test Challenges

in an Open RAN environment

Explore insights on best practices for success

CHALLENGE 01

Guarantee performance with scale and capacity

SOLUTION:

Ensure that your O-RAN Distributed Unit can cope with high data rates and multiple 5G carriers.

Choose a test partner that can emulate UEs and O-RAN Radio Units at scale to truly test the capability of your O-RAN Distributed Unit.

5G

4G

CHALLENGE 02

Ensure interoperability with legacy radio access technologies

SOLUTION:

5G and O-RAN are expected to work with legacy technologies. Ensure there is no major impact on the Quality of Service (QoS) for 4G users.

5G functionalities supported over RF can be accessed over O-RAN as it matures. This is important for network performance testing and interoperability with 4/4.5G. Choose test equipment where all mobility scenarios are supported over 5G is key as the deployment scenarios become more complex.

CHALLENGE 03

Guarantee performance in a multi-vendor scenario

SOLUTION:

From software release management to getting the network working, ensure that the system works end-to-end.

Testing performance end-to-end is essential to ensure multi-vendor components are working together effectively to achieve maximum network capability.

O-DU Vendor A

O-DU Vendor B

O-CU Vendor C

CHALLENGE 04

Functional, performance, and capacity testing against components that are not readily available

SOLUTION:

Create a stable and constant environment to give increased reliability and boost productivity by avoiding the constant changes to a real core network.

You need a test portfolio that offers emulation of many components of the network including UE, RAN and Core, and wrap around of major functions over multiple interfaces.

CHALLENGE 05

Limited 5G UE feature capability

SOLUTION:

Availability and access to 5G features and capabilities may be limited and may not have the sufficient coverage for a comprehensive test.

You need seamless access to already leading 3GPP 5G features supported over RF for O-RAN. This means you can expect no performance compromises with feature combinations.

For example, testing the latest high order Carrier Aggregation and MIMO.

Carrier Aggregation

MIMO

The VIAVI O-RAN Test Suite

VIAVI is a one stop shop, simplifying the complexity of testing different O-RAN interfaces across the network.

You can rely on an unparalleled global support footprint, reduced complexity of integration and co-ordinated support as part of the VIAVI Lab to Field and RANtoCore solutions.

With years of experience working alongside all major NEMs and small cell manufacturers. VIAVI has built a reputation as a trusted supplier of leading-edge cellular test equipment. Our flexible approach and ability to accommodate different customer requirements allows VIAVI to support various options and configurations that different operators require to deploy O-RAN solutions. VIAVI is part of the O-RAN Alliance and contributes to the development of O-RAN Specifications.



Find out more about our VIAVI O-RAN Testing, [download our whitepaper: viavisolutions.com/o-ran](https://www.viavisolutions.com/o-ran)

Command the 5G network.

You can rely on VIAVI for tools and expertise to help you take command of 5G infrastructure build-out.

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