

NITRO Wireless

5G Cloud Core Offload

A TeraVM Core Test Solution to Optimize
the Cost of 5G Core Deployment in the Cloud

The Challenge Facing Operators

Financial considerations along with open, disaggregated, software driven network architectures are driving the telco to the cloud. Estimates suggest nearly half of telco network capacity will be cloud native in 3-5 years.

Moving processing and network functions to the cloud is still a relatively new and untested concept. Evaluating performance and estimating hosting requirements remains a challenge and performance in the cloud remains uncertain: overprovision of cloud resources and the network incurs excessive costs; under provision and customer performance is impacted leading to subscriber churn or SLA breaches.

The VIAVI Solution

By creating a cloud-hosted emulated RAN and Core network and customer usage scenarios, TeraVM can determine realistic performance metrics to allow optimal dimensioning of cloud compute power; the data can also be used to plan for future growth and cloud hosting cost estimates.

TeraVM Cloud Core Test allows step-by-step testing, covering everything from entire 5G core test, individual element wraparound test, scale, performance, error, cloud platform and security test.

Business Impact

Testing and validating 3GPP functions and real traffic on cloud platforms can position cloud providers with realistic benchmark figures pushing them to the fore of the competition.



Sample Use Cases

Use Case 1: Scale test a 5G core network on Amazon Public Cloud. Deploy the test tool on the same Amazon Web Services (AWS) platform as the Core Network under test and scale with real traffic to verify the platform is fit for telecoms grade connections.

Use Case 2: Wraparound an Access and Mobility Function (AMF) to test for functionality, scale and redundancy. Verify AMF conforms to latest 3GPP specs, works at scale with millions of subscribers registering and sending data, works when errors are introduced and works in redundant mode should an AMF fail.

VIAVI Benefits

- ✓ **Best All Round Core Test Tool**
Only Core Test tool capable of functionality, scale, performance, cloud and security testing.
- ✓ **Cloud Enabled Testing**
Test core network on any Cloud or Cloud Edge platform.
- ✓ **3 S's of TeraVM Core Test**
Scalable – Scales easily in the cloud
Shareable – Cost optimization through license sharing
Speed – Fast test execution increases productivity
- ✓ **Core Network Firewall Test**
Stress test integrated Firewalls with real traffic intermixed with cybersecurity threats.



Get started with VIAVI Core Test solutions

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