

NITRO Wireless

Test Automation

TM500 Network Tester and TeraVM Service

The Challenge Facing Developers

Even though network architectures and technology continue to grow in complexity, developers face pressure to deliver more, deliver faster and with an expectation to use fewer resources. Different test tools with individual GUIs and report outputs for different development stages and projects means that building test expertise within teams and enabling cross-team coordination is hard, creating further drags on efficiency.

The VIAVI Solution

The gold standard and most comprehensive 3GPP RAN to Core and O-RAN test tools providing full automation and test suites for everything from standalone node testing to high load systems testing, helping to improve engineering efficiency by utilizing a common operational framework across the product portfolio so that skills and expertise are easily transferable across teams.

Using REST APIs, the VIAVI RANtoCore and O-RAN test portfolio is compatible with commercial standard and open source automation tools and applications such as Jenkins, Robot Framework, and Teamcity. VIAVI tools can also support custom APIs to integrate into customer proprietary frameworks.

Test as a Service — VIAVI test experts will work with customers to provide or support automated testing suites and campaigns for all types of automated testing including functional, interoperability, regression, CI/CD, security, performance, compliance and custom testing.

Business Impact

VIAVI test automation speeds up development, time-to-market and improves quality by removing manual configuration, increasing test scope and throughput, freeing up experienced engineers to focus on other critical development activities.



Sample Use Cases

Use Case 1: Increased frequency of software releases demand rigorous and automated testing increasing the workload on development teams. VIAVI automation capabilities allow tools and common test cases to be built into CI/CD frameworks that can be used by multiple teams to improve engineering efficiency and meet exacting project timelines.

Use Case 2: Automatically include security testing such as vulnerability scanning, 3GPP SCAS tests and DOS vulnerability checking into the overall test process to deliver more robust software without the need of a separate security testing team.

VIAVI Benefits

- ✓ **Proven Gold Standard**
In 100s of 3GPP RANtoCore and O-RAN automated test labs across the world.
- ✓ **Compatibility**
REST APIs enable integration with open source, commercial and proprietary frameworks to accelerate integration of TM500 and TeraVM into customer automation systems.
- ✓ **Scalable**
Highly scalable from single node integration and functional test to super high load system testing.
- ✓ **Flexible and Deployment Agnostic**
Supporting all types of automated test environments (RF, digital, COTS, private, public cloud, Hybrid).
- ✓ **Easy to Replicate Across Multiple Labs**
Alignment of RANtoCore tools automation framework so that knowledge, experience, and tools can be transferred between labs.