

# NITRO Wireless

## 5G Core Firewall Test

A TeraVM Core Test and TeraVM Security Solution

### The Challenge

Avoiding a security breach in a mobile network is quickly becoming the most important challenge for mobile operators. Security breaches can result in significant financial and non-financial costs plus additional spend to beef up network security. 5G SA Core's new architecture adds to the number of threat surfaces by allowing individual core elements to be developed by different vendors and then deployed together by the operator on a cloud platform. And this needs to happen without significant compromise on end user throughput. Deploying firewalls within the Core can mitigate these risks but vendors and operators need to have confidence in both their robustness and their performance.

### The VIAVI Solution

TeraVM 5G Core Firewall Test measures the effectiveness of embedded firewalls in 5G SA Core Networks.

- Measure the security effectiveness: Check the firewall collates control and user plane traffic to effectively stop malware from breaching the network
- Measure the user performance: ensure that the firewall does not add excessive overhead through the security layer (latency, connections per second, concurrent connections)

### Business Impact

With significant financial, non-financial and performance aspects at stake, it is critical that security considerations play a central role in design and pre-deployment testing of network components so that risks are minimized. By thoroughly testing the firewall in the design stage, vendors can show the effectiveness and performance of the firewall; and operators can use conduct further end to end testing within the full network to gain confidence that they are deploying protections that will secure their network without unacceptably degrading performance.



## Sample Use Cases

**Use Case 1:** Performance Test – Ensure user performance is not compromised with security overhead by measuring latency, bandwidth and buffering under large emulated load scenarios.

**Use Case 2:** Malware test – Mix malware and threats in with genuine traffic to test the robustness of the firewall in stopping threats from getting through to the core network.

## VIAVI Benefits

- ✓ **Fast Test Case Ramp Up**  
Test cases ramp up quickly to help verify and debug the Device Under Test (DUT) rapidly and keep projects on schedule.
- ✓ **Flexible Cloud and Appliance Testing**  
TeraVM Core Firewall Test is a fully virtualized, containerized solution which is also supported on all major cloud platforms to allow testing across cloud and non-cloud architectures.
- ✓ **Security Test Experience**  
Building on over 15 years' experience testing next-generation Firewalls. TeraVM leverages both a large library of potential threats and a track record of testing at high capacity.
- ✓ **Deliver High Performance Solutions to Your Customers**  
Easily capture user performance metrics that matter to your customers – MoS scores, Latency, Throughput, Tunnel establishment time.



### Get started with VIAVI 5G Core Test

Visit: [viavisolutions.com/solutions/5g-security](https://viavisolutions.com/solutions/5g-security)



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