

Palindrome Technologies

NESAS Test Lab Perspective

GSMA™
Network Equipment
Security Assurance Scheme
Authorised Test Laboratory



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Product Enhancements from Testing

While improvements tend to accompany iterative testing and NESAS lab tests are still reasonably young, we can point to a few areas where increased awareness of the baseline security requirements have improved product security posture and will likely result in compound improvements over time.

Documentation Requirements

33.117 is very specific about what the test lab and ultimately the customer MNO should be able to see documented, e.g.

- Overload control mechanisms and internal tests (4.2.3.3.3)
- Software package integrity mechanisms (4.2.3.3.5)
- Software Bill of Materials (4.3.2.3, 4.3.2.5 No Unused or Unsupported software components)
- Interfaces and Supported Protocols for 4.4.2

Testing has led to an increase in the amount of information provided to MNO, which strengthens their decision making.

Security Testing Readiness

- The NESAS process requires vendor security testing according to a Master Test Plan. The efficacy of this vendor testing validated by the test lab as part of the audit evidence evaluation.
- For vendors that previously did not perform this baseline of testing or have results scrutinized by a test lab, this increased testing can resolve issues earlier in the development process.
- Can prove more cost-efficient than having issues caught later in external product testing.

Unsupported Software

- The tests around unsupported software help to increase awareness of:
 - The importance of having an accurate Software Bill of Materials
 - The state of support for many Third-Party Components (TPC)
 - Abandoned Projects, Software many years old with no clear community support
- The tests around unused software increase awareness of the inclusion of unnecessary software in products (developer tools, etc)
- The level of scrutiny seems to be new and will hopefully result in improvements over time.

Secure Configuration

- Certain test cases emphasize to the product vendors the importance of product configuration
- Example is the test case that tests the strength of Management Protocols (TLS and SSH)
- Another example is the binding of management protocols to multiple interfaces in different communication planes (Management vs. Signaling)
- Results in a more solid “secure default” configuration that is documented and kept as evidence for the test report

Improvement Through Testing

