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Proper Depth & Breadth for Vulnerability Analysis
and Fun with Tailored Risk Reporting Metrics.



DEPTH TESTING

- No Authentication vs. Authentication
- Requirement; FIPS 199 High Systems / NIST SP 800-53a Rev 3
- Validation - CoverageValidate.java
 - Nessus PluginID: 21745 - Failed to Authenticate
 - False Negative Bug; if you have a local firewall that blocks auth ports but not OS identification, it will not fire.

BREADTH TESTING

- Inventory to System Boundary Coverage Analysis
 - Know whats on & should be on your network!
- Requirement; NIST SP 800-53a Rev 3 (Inventory & Network Auth)
- Validation - CoverageValidate.java
 - Missed Hosts
 - Extra Hosts



PTES

- Q: What is this "Penetration Testing Execution Standard"?
- A: It is a new standard designed to provide both businesses and security service providers with a common language and scope for performing penetration testing (i.e. Security evaluations).
- [http://www.pentest-standard.org/index.php/Vulnerability Analysis](http://www.pentest-standard.org/index.php/Vulnerability_Analysis)

THE QUESTIONS

- What is the X worst machine(s)?
- What is the over all risk level of my network?
- What fix would have the most risk reduction effect?

WHAT IS A MEASUREMENT?

- Measurement: A quantitatively expressed reduction of uncertainty based on one or more observations.

How to Measure Anything: Finding the Value of Intangibles in Business - By Douglas W. Hubbard

A MATH SOURCE

- Why & What source to leverage for math?
 - Is the impact more important than the threat criticality, by how much; 1x, 10x, 100x?
- NIST Risk Assessment Framework = Less Debate
 - 1 x 10 ratio of Threat to Impact

IMPLEMENTATION CODE

- XMLVulnStats.java - Works with Nessus V2 Files
 - Available @ www.blackhat.org today.
- Command-Line: `java XMLStatsVuln output.xls *.nessus`
- Features: Merge Multiple Files, Adjustable Impact
- DEMO

BY VULN CODE

- XMLTableStats.java - Works with Nessus V2 Files
 - Available @ www.blackhat.org today.
- Command-Line: `java XMLTableVuln *.nessus > output.xls`
- Features: Merge Multiple Files, Vuln Priority Score
- DEMO

QUESTIONS?

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