

CSN11123/4 Assessment Specification

Details

Module name:	Advanced Security and Network Forensics
Module number:	CSN11123/4
Session:	Semester 2, 2013
Weighting:	50%
Submission:	Week 14

Coursework Assignment

Title: Penetration Testing of a Web-based Virtualised Infrastructure
Outline: <http://youtu.be/tiyMJYqzvxs>

Outline Requirements

A new company (Apples4U) has setup a Web-based infrastructure within a virtualized environment (using VMWare ESXi). At its core is a forward-facing Web server and database infrastructure, with a Windows domain and LDAP backend, along with a range of supported services. It uses a range of virtual images to create this infrastructure. The company now wish an extensive investigation of their system using black-box testing. It is your role to perform this using a wide range of tools, and produce a report and improvements in the infrastructure. The VM infrastructure can be found at: <http://napiercloud.com> (you will also get a downloadable VM that you can run stand-alone tests against).

Marking schedule

The coursework should be submitted via Web-CT, in a PDF format, if possible. It will be marked as follows:

- **Research and Methodology** [20%]. This should show research into testing methodologies for Web-based infrastructures, and in the use of virtualized infrastructures. It should also outline your methodology for analysing the Web-based infrastructure, identifying the tools that will be used, and how the results will be analysed.
- **Findings** [30%]. This should outline the main vulnerabilities found, and outline the methods that could be used to overcome these.
- **Recommendations** [20%]. This should define the methods that could be employed to improve the infrastructure.
- **Conclusions** [20%]. This should reflect the main findings the key findings and critically appraise how infrastructure.
- **References/Presentation** [10%]. All references must be defined in an APA/Harvard format, and should be integrated in the report.

The report should use the APA/Harvard format for all of the references, and, if possible, should include EVERY reference to material sourced from other places. Also, the report should be up to 20 pages long (where appendices do not count in the page count number).