Preserving Privacy with Virtual Machines

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Trenton Computer Festival College of New Jersey Ewing, New Jersey

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If it makes a sound, SET IT ON SILENT (e.g., mobiles, pagers, PDA, smartphone)

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Many privacy threats –

- visitor tracking has become ubiquitous
- malware
- spyware
- persistent threats

Many mechanisms involved:

- cookies
- Registry
- spyware
- ActiveX
- others

Browsers are somewhat "sandboxed"

- "sandboxes" are not always perfect
- force vendoris/demandus
- employers
- "must use" applications

The problem:

- Compromise is not inevitable
- There are solutions

The solution:

- turn the paradigm on its head
- use a VM with "differencing" disks
- dispose of the system afterwards

After the visit:

- Delete the "difference" disk
- no preserved information

Demonstration:

- Create and use a "disposable" system
- Tasks:
 - Base System: Windows XP SP2
 - Create profile
 - Create new "difference" disk

Using Test System

Browse a few www sites

Perform Teardown

- halt virtual system
- delete "difference" disk
- create new "difference" disk
- boot disposable system
 - check history
 - browse location

Summary

- privacy can be preserved using disposable VMs
- that which is erased is not preserved

Questions?

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Session Notes & Materials: http://www.rlgsc.com/trentoncomputerfestival/2011/index.html

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