Virtualization: Its impact on security and current trends

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Discussion Topics

- Usefulness of virtualization:
    - Secure virtual appliance deployment
    - Convenient sandboxing
    - Convenient software distribution

Discussion Topics

- Added security strengths of utilizing virtualization
- Virtualization security demands
- Virtualization weaknesses

Discussion Questions

- Does virtualization have anything to offer for enforcing the principle of least privilege (POLP)?
- For more secure or more convenient sandboxing?
- Does virtualization offer a more convenient secure software distribution mechanism?
- In which ways does virtualization unnecessarily complicate securing applications?
- In which ways does it simplify application security?

Discussion Questions

- In which scenarios is the actual performance impact of virtualization too great for it to be viably used?
- In which scenarios is its performance impact outweighed by its potential security benefits?

Open Questions

- Biggest hurdles to this approach?
- Desktop virtualization deployment? Larger deployment?
- Single-desktop experience for users? Fusion, integration with window managers
- Hypervisor security?
- Not perfect but smaller/easier to harden?

Open Questions

- Viability of "virtual appliances"?
- Availability--appliance marketplaces?
- Speed--Fast enough for typical desktop use?
- Contract standardization? Working in standards bodies like DMTF
- OEM deployment on this configuration?
- Will it prevent substantial category of exploits?
- Better approach?

Contacting Us

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http://clarkson.edu/projects/virtualization/
Virtualization Mailing List:
   http://lists.clarkson.edu --> Virtualization

Use the above resources to continue this discussion!