Security issues within virtualization

Running head: U03A1 ANNOTATED BIBLIOGRAPHY PART u03a1 Annotated Bibliography Part Cliff Krahenbill Capella IT Research and Practice TS8004 Kimberly Anthony

December 23, 2008

Abstract

The information available for building an annotated bibliography on virtualization is large. University libraries, public libraries and the internet all have a wealth of information on the subject. The informational source and the reliability of the source need to be carefully considered when choosing sources for an annotated bibliography listing.

u03a1 Annotated Bibliography Part 1

Anthes, G. (2007). The Virtual Desktop Is Here. ComputerWorld, 1-4. Retrieved January 17. 2009. Retrieved from http://www. stream24-7. com/UserFiles/26/Image/computer%20world%20article. pdf

This article from the web explained the practical uses of virtualization in the real world of business. Instead of hypothetical instances of positive use, a real individual is talking about the need for virtualization in the business world.

Citrix Systems, Inc. (2008, October). Citrix xenserver V5. 0 and netapp storage best practices. Retrieved from CITRIX Web site: http://www. citrix. com/site/resources/dynamic/partnerDocs/CitrixXSNetAppStorageBestPracticesGuidefinal. pdf

This article shows the best way to use NetApp storage systems and Citrix XenServer. It also speaks about the future of these methods in the furthering of virtualization. Although pushing their product, this article has good information.

ComputerWorld (2005). The virtual desktop is here. Retrieved January 9, 2009, from http://www. computerworld. com/

The great IT cost is reduced by the virtual desktop. The need to download extra software and patches are thing of the past according to this article. Since it was written in 2005, the author is full of promise for the virtual desktop, with no concern. This is important to show the attitude when the virtual desktop was new.

Find White Papers (n. d.). Find White Papers. Retrieved December 23, 2008, from http://www. findwhitepapers. com/

This web site provides access to technology white papers and can provide me with an excellent source of information on the subject of virtualization. Most of the technology is being developed by well know vendors, having easy access to their technology white papers will help provide a reliable source for information.

Ghodke, N. (2004). Virtualization techniques to enable transparent access to Peripheral devices across networks (Masters Thesis, University Of Florida, 2004). Retrieved from http://etd. fcla. edu/UF/UFE0005684/ghodke_n. pdf

The researchers virtualized peripheral devices to allow them to be accessed over a network in a manner that is transparent to applications. The peripherals virtualized

work in conjunction with middleware to achieve access, location, and migration

transparencies. Such functionality is useful for virtual-machine based networkcomputing

systems that support interactive applications, and for virtual-machine based solutions for ubiquitous computing. Three techniques were used. This

article was cutting edge with new information.

Lewis, N. (June 17, 2008). Virtualization Security. Retrieved December 29, 2008, from http://www. itsecurity. com/features/virtualization-security-061708/

Many individuals get excited about virtualization without taking into account the security measures necessary to run virtualization without being hacked or interfered with by outside sources. This article informs about security measures needed.

Ormandy, T. (2007). An Empirical Study into the Security Exposure to Hosts of Hostile Virtualized Environments (). Retrieved from Tavis Ormandy: http://taviso. decsystem. org/virtsec. pdf

This article also speaks about security for virtualized environments. The authors did an empirical study into the security exposure to hosts of hostile virtualized environments. Their findings were very interesting and vital to my research.

Rothman, M. (May 7, 2007). Preparing for virtualization security unknowns. Retrieved December 30, 2008, from http://searchsecurity. techtarget. com/tip/0, 289483, sid14_gci1254079, 00. html#

This article speaks about the unknown factors of virtualization. Mike Rothman believes that there are a number of potential dangers involved with making the switch from a physically distinct network of servers to a virtual environment.

Sailer, R., Valdez, E., Jauger, T., Perez, R., Van Doorn, L., & Griffin, J. L. et al. (2005). sHype: Secure hypervisor approach to trusted virtualized systems. Computer Science. Retrieved January 17, 2009. Retrieved from http://www. paramecium. org/~leendert/publications/rc23511. pdf

In this article, IBM suggests that a secure hypervisor approach to a trusted virtualized system is the way to ensure secure virtualized environments. This approach contained solutions, instead of detractions to the virtualization method.

SearchSecurity. com (n. d.). Virtualization Security. Retrieved December 30, 2008, from http://searchsecurity. techtarget. com/topics/0, 295493, sid14_tax306899, 00. html

SearchSecurity. com is a website committed to the security of information on the web. This article gave useful tips on how to protect your virtualization experience. Everything from bubbles to breaches was discussed on this website.

Singh, A. (n. d.). An Introduction to Virtualization. Retrieved December 23, 2008, from http://www. kernelthread. com/publications/virtualization/

This web site was created by Amit Singh and is an excellent source on the beginnings of virtualization. The information and the outlined references will provide me with a wealth of knowledge to help in the search for the origins of virtualization.

Stuart, A. (2006). Virtual technology, real benefits . HP. Retrieved from December 23, 2008 http://www. hpl. hp. com/news/2006/apr-jun/virtualization. html

Anne Stuart's article written for HP makes a strong case on the benefits of using virtualization. This article provides insight from a business perspective on why virtualization is breaking the mold on how networks should get built.

Vaughan-Nichols, S. J. (2008). Virtualization sparks security concerns. Computer, 13-15. Retrieved January 17, 2009. Retrieved from http://ads. computer.

org/portal/cms_docs_computer/computer/homepage/Aug08/r8technews. pdf

As virtualization becomes common for businesses, the quirks and problems have become a big concern. Security levels and issues are the first thing on most virtualization users' minds. This article informs about some of the security concerns businesses have with virtualization.

Vouk, M. A. (2008). Cloud Computing – Issues, Research and Implementations. Journal of

Computing and Information Technology, 16(4), 235-246. Retrieved from http://cit. zesoi. fer. hr/browsePaper. php? issue= 36&seq= 2&paper= 1391

Vouk states in his abstract: " Cloud" computing – a relatively recent term, builds on decades of research in virtualization, distributed computing, utility computing, and more recently networking, web and software services. It implies a service oriented architecture, reduced information technology overhead for the end-user, great flexibility, reduced total cost of ownership, on-demand services and many other things. This paper discusses the concept of " cloud" computing, some of the issues it tries to address, related research topics, and a " cloud" implementation available today.

Vessey, I., Ramesh, V., & Glass, R. (2002, Fall2002). Research in Information Systems: An Empirical Study of Diversity in the Discipline and Its Journals. Journal of Management Information Systems, 19(2), 129-174. Retrieved December 23, 2008, from Business Source Complete database.

This article will help in writing abstracts and using key words that will help explain my research methods to others. Using information from the article will help explain how I choose to conduct my research on what methods I choose to use. Depending on the subject matter, this article can provide a catalyst that allows me to qualify my research using some the diverse

methods used researching technology similar to that of my subject.

References

Anthes, G. (2007). The Virtual Desktop Is Here. ComputerWorld, 1-4. Retrieved January 17. 2009. Retrieved from http://www. stream24-7. com/UserFiles/26/Image/computer%20world%20article. pdf

Citrix Systems, Inc. (2008, October). Citrix xenserver V5. 0 and netapp storage best practices. Retrieved from CITRIX Web site: http://www. citrix. com/site/resources/dynamic/partnerDocs/CitrixXSNetAppStorageBestPractice sGuidefinal. pdf

ComputerWorld (2005). The virtual desktop is here. Retrieved January 9, 2009, from http://www. computerworld. com/

Fabian, P., Palmer, J., Richardson, J., Bowman, M., Brett, P., & Knauerhase, R. et al. (2006). Virtualization in the Enterprise. Intel Technology Journal, 10(3), 227-242. Retrieved January 17. 2009. Retrieved from Business Source Complete database.

Find White Papers (n. d.). Find White Papers. Retrieved December 23, 2008, from http://www. findwhitepapers. com/

Ghodke, N. (2004). Virtualization techniques to enable transparent access to Peripheral devices across networks (Masters Thesis, University Of Florida, 2004). Retrieved from http://etd. fcla. edu/UF/UFE0005684/ghodke_n. pdf

Lewis, N. (June 17, 2008). Virtualization Security. Retrieved December 29, 2008, from http://www. itsecurity. com/features/virtualization-security-061708/

Ormandy, T. (2007). An Empirical Study into the Security Exposure to Hosts ofHostile Virtualized Environments (). Retrieved from Tavis Ormandy: http://taviso. decsystem. org/virtsec. pdf

Rothman, M. (May 7, 2007). Preparing for virtualization security unknowns. Retrieved December 30, 2008, from http://searchsecurity. techtarget. com/tip/0, 289483, sid14_gci1254079, 00. html#

Sailer, R., Valdez, E., Jauger, T., Perez, R., Van Doorn, L., & Griffin, J. L. et al. (2005). sHype: Secure hypervisor approach to trusted virtualized systems. Computer Science. Retrieved January 17, 2009. Retrieved from http://www. paramecium. org/~leendert/publications/rc23511. pdf

SearchSecurity. com (n. d.). Virtualization Security. Retrieved December 30, 2008, from http://searchsecurity. techtarget. com/topics/0, 295493, sid14_tax306899, 00. html

Singh, A. (n. d.). An Introduction to Virtualization. Retrieved December 23, 2008, from http://www. kernelthread. com/publications/virtualization/

Stuart, A. (2006). Virtual technology, real benefits . HP. Retrieved from http://www. hpl. hp. com/news/2006/apr-jun/virtualization. html

Vaughan-Nichols, S. J. (2008). Virtualization sparks security concerns. Computer, 13-15. Retrieved January 17, 2009. Retrieved from http://ads. computer. org/portal/cms_docs_computer/computer/homepage/Aug08/r8technews. pdf

Vessey, I., Ramesh, V., & Glass, R. (2002, Fall2002). Research in Information Systems: An Empirical Study of Diversity in the Discipline and Its Journals. Journal of Management Information Systems, 19(2), 129-174.

Vouk, M. A. (2008). Cloud Computing – Issues, Research and Implementations. Journal of Computing and Information Technology, 16(4), 235-246. Retrieved from http://cit. zesoi. fer. hr/browsePaper. php? issue= 36&seq= 2&paper= 1391

Outline

i. Title Page

ii. Abstract

iii. Outline

I. Introduction

II. Virtualization/Literature Review

III. Virtualization Security Issues/Methodology

IV. Preventive Security Measures/Recommendations

V. Conclusion

IV. Annotated Bibliography

IIV. Bibliography