



利用开源软件实现电子阅览室安全网关系统

胡弢, 魏涛, 徐海军

泰山医学院图书馆 泰安 271000

Hu Tao, Wei Tao, Xu Haijun

Library of Taishan Medical University, Taian 271000, China

- 摘要
- 参考文献
- 相关文章

Download: PDF (753KB) [HTML](#) (1KB) Export: BibTeX or EndNote (RIS) Supporting Info

摘要 为保证现有电子阅览室设备在IPv4/IPv6过渡时期的正常运转,提出一种采用开源软件搭建的模块化安全网关系统设计方案,并详细阐述设计步骤。运行测试表明该系统性能良好、工作稳定。

关键词: [开源软件](#) [安全网关](#) [模块化设计](#) [NAT](#) [NAT-PT](#)

Abstract: In order to ensure the normal operation of existing equipment that used in electronic reading room for the period while IPv6 hosts and routers co-exist with IPv4 systems, this paper introduces a method for building a modular security gateway system based on open source software and designs its main program flow. The application shows the system performs satisfactorily and works stably.

Keywords: [Open source software](#), [Security gateway](#), [Modularity design](#), [NAT](#), [NAT-PT](#)

收稿日期: 2011-12-12;

Service

- ▶ 把本文推荐给朋友
- ▶ 加入我的书架
- ▶ 加入引用管理器
- ▶ Email Alert
- ▶ RSS

作者相关文章

- ▶ 胡弢
- ▶ 魏涛
- ▶ 徐海军

引用本文:

胡弢, 魏涛, 徐海军. 利用开源软件实现电子阅览室安全网关系统[J]. 现代图书情报技术, 2012, V28(2): 92-97

Hu Tao, Wei Tao, Xu Haijun. Design and Implement Security Gateway System Based on Open Source Software Used in Electronic Reading Room [J], 2012, V28(2): 92-97

链接本文:

<http://www.infotech.ac.cn/CN/> 或 <http://www.infotech.ac.cn/CN/Y2012/V28/I2/92>

- [1] 朱田, 陈涛, 马迪, 等. 基于IPv4向IPv6过渡的IP追溯技术研究[J]. 计算机应用研究, 2011, 28(12):4409-4413. (Zhu Tian, Chen Tao, Ma Di, et al. Research of IP Traceback Technology Based on Transition from IPv4 to IPv6[J]. *Application Research of Computers*, 2011, 28(12):4409-4413.)
- [2] 张伟. IPv6 过渡技术发展历程分析[J]. 电信网技术, 2011(6):28-30. (Zhang Wei. Analysis of the Development of IPv6 Transition Technologies[J]. *Telecommunications Network Technology*, 2011(6):28-30.)
- [3] Nordmark E, Gilligan R. Basic Transition Mechanisms for IPv6 Hosts and Routers[EB/OL]. (2005-10-12). [2012-01-02]. <http://www.ietf.org/rfc/rfc4213.txt>.
- [4] Durand A, Fasano P, Guardini I, et al. IPv6 Tunnel Broker[EB/OL]. (2001-01-15). [2012-01-02]. <http://www.ietf.org/rfc/rfc3053.txt>.
- [5] Carpenter B, Moore K. Connection of IPv6 Domains via IPv4 Clouds[EB/OL]. (2001-02-15). [2012-01-02]. <http://www.ietf.org/rfc/rfc3056.txt>.
- [6] Templin F, Gleeson T, Thaler D. Intra-Site Automatic Tunnel Addressing Protocol (ISATAP)[EB/OL]. (2008-03-15). [2012-01-02]. <http://www.ietf.org/rfc/rfc5214.txt>.
- [7] Tsirtsis G, Srisuresh P. Network Address Translation-Protocol Translation (NAT-PT)[EB/OL]. (2000-02-17). [2012-01-02]. <http://www.ietf.org/rfc/rfc2766.txt>.
- [8] 乐德广, 吴孙桃, 郭东辉. NAT-PT技术及其在FreeBSD系统中的实现[J]. 电信科学, 2003, 19(2):20-23. (Le Deguang, Wu Suntao, Guo Donghui. NAT-PT Technology and Its Implementation Based on FreeBSD[J]. *Telecommunications Science*, 2003, 19(2):20-23.) 

- [9] 陆音, 石进, 黄皓, 等. 一种基于地址、协议转换方式的高性能IPv6/IPv4安全网关[J]. 计算机应用与软件, 2007, 24(9): 7-10. (Lu Yin, Shi Jin, Huang Hao, et al. A Secure Gateway of High Performance for IPv6/IPv4 Based on NAT-PT[J]. *Computer Applications and Software*, 2007, 24(9): 7-10.) 
- [10] 王帅, 刘雷, 柴乔林. 应用Netfilter框架基于NAT-PT的IPv4/IPv6转换网关的实现[J]. 计算机工程, 2006, 32(13): 147-149. (Wang Shuai, Liu Lei, Chai Qiaolin. Implementation of IPv4-IPv6 Translation Gateway Based on NAT-PT with Netfilter Framework[J]. *Computer Engineering*, 2006, 32(13): 147-149.) 
- [11] 杨晋升, 郭一通. NAT技术在图书馆代理服务上的实现[J]. 图书情报工作, 2004, 48(3): 99-101. (Yang Jinsheng, Guo Yitong. The Realization of NAT Technique on Proxy Server of Libraries[J]. *Library and Information Service*, 2004, 48(3): 99-101.) 
- [12] 曾湛伟. 基于Linux系统的透明代理服务器的构建及在图书馆局域网中的应用[J]. 现代图书情报技术, 2005(2): 49-52. (Zeng Zhanwei. Construct a Transparent Proxying on Linux System and Its Application in Library Local Area Network[J]. *New Technology of Library and Information Service*, 2005(2): 49-52.) 
- [13] FreeBSD 8.2- Release Hardware Notes [EB/OL]. [2012-01-02]. <http://www.freebsd.org/releases/8.2R/hardware.html>.
- [14] Red Hat Enterprise Linux 5.4 Release Notes[OL]. [2012-01-02]. http://www.centos.org/docs/5/html/5.4/pdf/Release_Notes.pdf.
- [15] Network Address Translation, Protocol Translation IPv4/IPv6 [EB/OL]. (2010-12-04). [2012-01-02]. <http://tomicki.net/naptd.php>.
- [16] NAT-PT - Installation[EB/OL]. (2010-12-04). [2012-01-02]. <http://tomicki.net/naptd.installation.notes.php>.
- [17] FreeBSD Handbook: Building and Installing a Custom Kernel[EB/OL]. (2011-10-04). [2012-01-02]. http://www.freebsd.org/doc/en_US.ISO8859-1/books/handbook/kernelconfig-building.html.
- [18] FreeBSD Handbook: The IPFilter (IPF) Firewall[EB/OL]. (2011-10-04). [2012-01-02]. http://www.freebsd.org/doc/en_US.ISO8859-1/books/handbook/firewalls-ipf.html.
- [19] Luigi Rizzo. Device Polling Support for FreeBSD[EB/OL]. (2002-02-10). [2012-01-02]. <http://info.iet.unipi.it/~luigi/polling/>.
- [20] FreeBSD Kernel Interfaces Manual: Polling (4)[EB/OL]. (2007-04-06). [2012-01-02]. <http://www.freebsd.org/cgi/man.cgi?query=polling>.
- [21] FreeBSD System Manager's Manual: ROUTE(8)[EB/OL]. (1996-06-01). [2012-01-02]. <http://www.freebsd.org/cgi/man.cgi?query=route>.
- [22] FreeBSD System Manager's Manual: MOUNT_SMBFS(8)[EB/OL]. (2011-09-17). [2012-01-02]. http://www.freebsd.org/cgi/man.cgi?query=mount_smbfs.
- [1] 李欣, 于亚秀. 基于开源KBPublisher构建图书馆个性化FAQ系统[J]. 现代图书情报技术, 2011, 27(9): 78-82
- [2] 王科, 周强, 李春旺. Web系统多级分布式缓存机制设计与实现[J]. 现代图书情报技术, 2011, 27(7/8): 21-25
- [3] 秦学东, 陈大庆, 崔晓松. 基于开源虚拟化的高可用服务器架构[J]. 现代图书情报技术, 2011, 27(6): 46-50
- [4] 鲜国建, 赵瑞雪. 基于Solr的中文农业期刊文摘检索系统的构建研究[J]. 现代图书情报技术, 2011, 27(6): 51-58
- [5] 李宇, 王威. PDF过量下载监测的设计与原型实现[J]. 现代图书情报技术, 2011, 27(4): 71-76
- [6] 张平杉, 章伟焯. 新一代开源OPAC系统比较研究[J]. 现代图书情报技术, 2011, 27(2): 21-28
- [7] 祝忠明, 马建霞, 卢利农, 李富强, 刘巍, 吴登禄. 机构知识库开源软件DSpace的扩展开发与应用[J]. 现代图书情报技术, 2009, 25(7-8): 11-17
- [8] 吴振新, 曲云鹏, 李成文, 向菁. 基于开源软件搭建网络信息资源采集与保存平台[J]. 现代图书情报技术, 2009, 25(7-8): 6-10
- [9] 史红娟, 李伶, 崔冶秋. 读者借阅历史记录查询系统设计与实现[J]. 现代图书情报技术, 2009, 25(7-8): 23-27
- [10] 庄纪林. 利用策略域名解析和反向NAT技术使CASHL系统提供“多网服务”[J]. 现代图书情报技术, 2009, 25(7-8): 105-110
- [11] 王泽贤. 利用开源软件实现基于浏览器的幻灯片系统*[J]. 现代图书情报技术, 2009, 25(6): 89-93
- [12] 刘兰, 吴振新, 向菁, 孙志茹. 网络信息资源保存开源软件综述[J]. 现代图书情报技术, 2009, 25(5): 11-17
- [13] 白海燕, 姜波. 基于开源软件构建数字图书馆的知识组织体系[J]. 现代图书情报技术, 2009, 25(4): 7-13
- [14] 杨代庆, 张智雄. 基于Hadoop的海量共现矩阵生成方法*[J]. 现代图书情报技术, 2009, 25(4): 23-26
- [15] 许雁冬, 李宇. 基于开源软件的网络监测系统研究与实现*[J]. 现代图书情报技术, 2009, 25(12): 64-68