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MUUGlines
The Manitoba Unix User Group Newsletter

## April 13: Network Infrastructure for E-Business

Mark Lehmann, from IBM, will be doing this month's presentation, which will focus on trends in the Internet (what will the Service Provider Network look like over the next 5-10 years), trends in Local Area Networks (switching, ATM backbone, Gigabit Ethernet) and technologies for the Internet such as web caching, server load balancing, and Virtual Private Networks (VPNs) using IP Security (IPSec).

Mark Lehmann is a Network Specialist in the IBM Networking Systems group. Mark has been with IBM for 13 years and has spent most of his career in the area of networking.

Please note: **The meeting location** for this month only is the Kensington Room at the Ramada Marlborough Hotel, 331 Smith St., between Portage Avenue and Ellice Avenue. The meeting will start at the usual time, 7:30 P.M.

As usual, we will also have a round-table discussion, in which anyone can raise questions regarding their experiences (or lack thereof) with all things Unix. We realize that it can be a little intimidating, but please be assured that no question is too easy!

Parking is available across the street from the Marlborough Hotel (behind the Mother Tucker's Restaurant; entrance off Ellice Avenue) or in the usual place, the parkade behind the TD building, off Albert Street, or in the ground level lot just north of the TD building. Entrance to that lot is from Albert Street, behind the parkade. The meeting this month is pretty close to where we usually have it, so it would be a short walk.

## Mac OS X Server Now Shipping

CUPERTINO, California—March 16, 1999—Apple Computer, Inc. announced the availability of Mac OS X Server, the Company's new server operating system, which combines the proven strength of UNIX with the simplicity of Macintosh. Customers can order Mac OS X Server from Apple Authorized Resellers and The Apple Store (www.apple.com) for U.S. $499—with an unlimited client license. Mac OS X Server, when coupled with a new Macintosh Server G3, is the fastest platform for running Apache for under U.S. $5000—outperforming Linux, Solaris and Windows NT Server.*

"Our customers are excited about Mac OS X Server, Apple's first modern server operating system," said Steve Jobs, Apple's interim CEO. "Mac OS X Server is an incredibly powerful web server and by introducing it at an aggressive price of $499, we're putting power into the hands of millions of Macintosh customers in education and business."

Mac OS X Server is built on a modern, high-performance and reliable operating system foundation and includes powerful services designed for Apple's Internet development, design and publishing, and education customers. As well as being the fastest Apache web server platform for under $5000, Mac OS X Server is also faster than Windows NT Server in high bandwidth file throughput tests.

Other key Mac OS X Server features include: A modern foundation, based on Mach and BSD 4.4, which provides performance and stability through full pre-emptive multitasking, protected memory and advanced virtual memory.

Apache 1.3.4, the HTTP server used by over half the web sites on the Internet, which scales from workgroups to Internet sites capable of handling millions of hits per day. Apache leverages the power of Open Source development to deliver a feature-rich web serving solution.

WebObjects 4.01, Apple's market-leading application server platform for development and deployment of high-performance, large-scale Internet and intranet applications. With major advances in ease of application development, performance and Java functionality, WebObjects 4 is a milestone release, and now supports Macintosh Server G3 systems in addition to UNIX and Windows NT platforms.

NetBoot, a new feature which allows a network of Macs to be booted and configured from a single server, making network administration as easy as running a single Mac. With NetBoot, all Macs on a network share the same base system and applications stored on the server. NetBoot enables full control of user access, allowing users to securely access their own applications, documents and personal desktop preferences from any Macintosh on the network. Scalable Apple file services, capable of supporting over 1,000 users and thousands of open files. Users can access files from any AppleShare client over TCP/IP or AppleTalk network protocols. Additionally, all file server operations may be managed remotely using web-based remote administration tools.

Additionally, Apple today announced Darwin - the Open Source release of the Mac OS X Server operating system foundation. The software will be available free for developers at (www.apple.com/darwin) in the next few weeks. With the launch of Darwin, Apple becomes the first mainstream operating system provider to release its source code to the public and base its system software strategy on Open Source technologies (see separate press release).

System Requirements, Pricing & Availability: Mac OS X Server supports all Power Macintosh G3 or Macintosh Server G3 systems, and is optimised for Apple's new line of Power Macintosh G3s. Mac OS X Server requires 64MB of RAM, 1GB hard drive and a CD-ROM drive.

Mac OS X Server is available today in the United States and Canada, with worldwide availability expected in the next few months. The software can be purchased on-line from The Apple Store (www.apple.com) and Apple Authorized Resellers for the estimated retail price of U.S. $499.

Mac OS X Server is also available pre-configured on a Macintosh Server G3 for U.S. $4999. The Macintosh Server G3 with Mac OS X Server software includes: PowerPC G3 at 400MHz and 1MB level 2 backside cache; 2 x 9GB Ultra 2 SCSI 10,000rpm hard drives; 24x-speed CD-ROM drive (maximum); and a 4-port 10/100BASE-T Ethernet controller.

*Based on WebBench benchmark testing performed by ZD Labs on a Dell PowerEdge 2300 Pentium II 450 MHz running Red Hat Linux, and a Sun Microsystems Enterprise Ultra 10S Server 333 MHz running Solaris; and NetBench benchmark testing performed by Apple on a Dell PowerEdge 2300 Pentium II 450 MHz running Windows NT Server, and a 400 MHz Macintosh Server G3 running Mac OS X Server.

## THE Apache Book

The freeware Apache Web server currently runs on about half of the worlds existing Web sites, and its popularity is rising faster than any other web server.

For this growing army of Apache Web administrators, O'Reilly has updated the 1997 Apache classic, Apache: The Definitive Guide. Written and reviewed by key members of the Apache group, Apache: The Definitive Guide, 2nd Edition is the only complete guide on the market that describes how to obtain, set up, and secure the Apache software on both UNIX and Windows systems. The second edition fully describes Windows support and all the other Apache 1.3 features.

Web administrators new to Apache can get up to speed more quickly than ever before by working through the tutorial demo. Experienced administrators and CGI programmers, and Web administrators moving from UNIX to Windows, will find the reference sections indispensable. Apache: The Definitive Guide is the definitive documentation for the world's most popular Web server. Includes an Apache quick reference card and a CD-ROM with Apache manuals and demo sites discussed in the book.

### O'Reilly's second edition policy

If you already own the first edition of Apache: The Definitive Guide, you may receive a 25% discount on the second edition if you purchase direct from the publisher. (They'll ask you to mail in the title page of the old edition with your order.) For more information, call 800/998-9938 or e-mail order@oreilly.com.

## Xi Graphics

Xi Graphics' Accelerated-X Display Server Version 5 now offers support for the latest desktop and laptop graphics hardware for Solaris 7 (Intel Platform), often referred to as Solaris x86.

The product allows corporate and individual users to use Solaris x86 with the latest laptops and graphics cards. The Denver-based company is also working with laptop manufacturers and others to insure support for other peripheral I/O chips at the operating system driver level under Solaris x86.

"We're primarily responding to the many requests for graphics card and laptop support from loyal Solaris users," says Lee Roder, sales and service director for Xi Graphics. Roder says that Xi Graphics' primary focus is on graphics support, but says the company is also working with laptop manufacturers and others to insure Solaris x86 operation with the peripheral I/O chips such as PCMCIA, Ethernet, modem and others on the laptop motherboards.

Xi Graphics also has announced a price reduction for Accelerated-X for Solaris. The price for the laptop version has been lowered from $249.95 to $199.95 and the desktop version from $149.95 to $99.95 and includes unlimited customer technical support via e-mail and phone.

Xi Graphics' line of Accelerated-X of Accelerated-X Display Servers is noted for its robust performance and stability. These characteristics and the many features that have been designed into the servers make them the ideal foundation for a graphical user interface on Linux and UNIX and therefore ideal for use with Solaris x86.

"Other (non-commercial) servers used with Linux do not measure up to the standards of stability and capability that are required in the 'corporate world,'" Roder continued. "When the Linux or UNIX system crashes because of a flaky X server, the whole operating system is down and Linux or UNIX usually gets the blame. We fix that." Features of the version 5 include hardware overlays, support for graphic tablets, mice with wheels and external monitor support for the laptops.

Accelerated-X Display Server Version 5 comes in three configurations, desktop ($99.95), laptop ($199.95), and multi-head ($299.00) for Linux, FreeBSD or Solaris. All prices are US (slightly higher international rates apply), shipping and handling are additional. Quantity discounts are available. Unlimited free customer support via phone and e-mail for all three configurations is included with the purchase.

Designed for high performance on desktop PCs, Accelerated-X is a highly-optimised, hardware-accelerated X server based on and compliant with the X11R6.4 release from The Open Group. Customers who own the current version of Accelerated-X can get free support from Xi Graphics for the latest laptop graphics chipsets made by firms such as ATI, Chips & Technologies, NeoMagic, S3, Trident and others. In fact, Xi Graphics has consistently offered X server support for the latest PC laptop hardware far in advance of other companies or institutions. For more information, contact Xi Graphics at 800-946-7433 or visit their Web site at www.xig.com.

## Setting Up Samba

A new version of the Samba Step by Step Guide is available. The guide is available at http://www.sfu.ca/~yzhang/linux/samba/index.html in several formats (PDF, html, etc.). This is a good guide if you've never set up Samba before but are just itching to since you keep hearing about it.

## Key URLs

The "linux.com" domain was recently put up for sale, and was bought by VA Research, a well-known hardware supplier in the Linux arena. Set a bookmark to www.linux.com and keep an eye on it for Linux community portal info. Red Hat has also set up it's home page as a 'portal' site at www.redhat.com. Curiously enough (that is, for people used to the usual commercial approach) they have links to competing Linux distributors such as SuSE, Debian and PacificHiTech.

## New Linux Magazine

The much anticipated premier issue of Linux Magazine was announced at LinuxWorld Expo in San Jose, California. According to Adam Goodman, the magazine's editor and publisher, Linux Magazine is a new publication focused on serving the growing number of Linux users worldwide. A Web site featuring news and links to other Linux sites will be launched concurrently with the magazine's print version. The aim for the Web site, http://www.linux-mag.com, is to become a Linux portal, a gateway to all of the news, information and technical data that will interest the Linux community.

The magazine features a dark and foreboding cover story entitled, “MICROSCARED — Why Closed Source Vendors Fear Linux.” Stories in the print publication and online explain the history of the Open Source Software movement, Linux, and the challenges they present to traditional software companies. In addition, the magazine contains the first truly in-depth, comprehensive interview with Linus Torvalds, the creator of Linux. An extended excerpt from this interview is also available at http://www.linux-mag.com.

“Linux represents the best kind of challenge to the established closed source model for computer software,” Goodman said. “Linux has traditionally been a haven for hackers, but it is now becoming a commercial phenomenon. Our magazine is written for hackers and entrepreneurial executives alike, and delivers sophisticated coverage of both the technical and commercial sides of the Linux revolution.”

Although Linux users at present number approximately ten million worldwide, recent decisions by Oracle, Corel and other vendors to release software that supports Linux have begun to stir the imagination of the entire computer industry. Hardware manufacturers such as IBM, Hewlett Packard and Dell plan to release products pre-loaded with Linux. Many Fortune 500 companies have also begun to adopt Linux-based servers and workstations at many of their work sites.

What makes Linux a such a powerful competitor for Microsoft Windows is its dependence on and commitment to the “open source” philosophy. With its source code available to programmers worldwide, the kernel or “heart” of the operating system is constantly being improved and upgraded by an army of enthusiastic users who function as kind of a group mind. Under Microsoft’s proprietary model, innovation comes about much more slowly and at greater cost to the company and its customers.

The Linux kernel is protected by a software license developed by the “Free Software Foundation” and known as the “GNU Public License” (or GPL). This license guarantees that no one person or organization can claim ownership of the Linux source code. It further guarantees in perpetuity the free distribution of the open source Linux kernel code. Instead of being copyrighted, software protected by the GPL is referred to in jest as being “copylefted.”

Linux Magazine’s initial circulation is 40,000. By the end of the year, Goodman anticipates it will reach 75,000. Advertisers are already flocking to the new publication. Companies appearing in the first issue include: Red Hat Software, VA Research, Linux Hardware Solutions, SuSE, Enhanced Software Technologies, LinuxCare, ASL Workstations, Caldera, O’Reilly Associates, Cobalt Networks, InfoMagic, and Microway. Linux Magazine will be available at B. Dalton, Barnes & Noble, Borders Books, CompUSA, and many other bookstores and newsstands throughout the U.S. and abroad. The cover price of the magazine is $4.95 per issue. Subscriptions are available at $34.95 per year.

Linux Magazine will maintain production and distribution offices in New York City and editorial offices in Berkeley, California, not far from Silicon Valley, the epicenter of the Linux Revolution. Matt Welsh, the author of “Running Linux,” published by O’Reilly and Associates is also an editor. “Running Linux” is widely acknowledged as the bible of new Linux users. Goodman and Welsh hope to attract the best writers available from both the Linux community and the wider world of technology-savvy writers serving the technology marketplace. The current issue contains articles from Linux luminaries such as Alan Cox and Erik Troan.

How will Goodman define success? “If we can grow by helping the Linux market grow, and we’re providing a magazine people want to read and find useful, I will call us successful.”

## MUUG Contact Information

To contact the MUUG board for membership information or anything else, send e-mail to board@muug.mb.ca. We have a Web presence as well, at http://www.muug.mb.ca/, where you can find all kinds of information, including details of upcoming and past meetings and presentations and references related to them. We’re always interested in article submissions. Submit your articles and ideas to editor@muug.mb.ca. Note that we can’t publish articles directly taken from other periodicals as that would be a violation of