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MUUGlines
The Manitoba Unix User Group Newsletter

February 9: X Configuration

This month, we continue our informal series on the setup and configuration of Unix and Linux systems. Gilbert Detillieux will be providing a look at X Window System configuration with XFree86. Other issues may be covered as well, depending on how much time is spent on X.

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 (or "dumb")!

Please note our meeting location: IBM Canada's offices in the TD Centre, at the corner of Portage and Main. We gather in the lobby on the main floor - please try to be there by about 7:15 PM. Steve Moffat will then take us up to the meeting room just before the meeting starts at 7:30. Please don't be late, or you may not get in.

Parking is available either in the parkade behind the TD building, off Albert Street, or in the ground level lot just north of the TD building. Entrance to the lot is from Albert Street, behind the parkade. Either way, parking is a $1.25 flat rate for the evening. You must purchase your ticket from a dispenser, so make sure you've got exact change - a loonie and a quarter, or 5 quarters.

Linux Beats NT At Its Own Game

According to a well-written article at the Sm@rtReseller web site, Samba running on three major distributions of Linux provides much higher file-serving performance than does Windows NT on the same hardware. The three distributions tested were Caldera's OpenLinux, SuSE's SuSE 6.0 and Red Hat Linux 5.2. OpenLinux was the tops in the Apache test, and Red Hat Linux was best in the NetBench measure; Windows NT lagged considerably. See the full article at http://www.zdnet.com/sr/stories/issue/0,4537,387506,00.html.

As ZDLabs' Steven J. Vaughan-Nichols and Eric Carr said, "You might think that Linux would operate at a disadvantage here, but Linux kicks NT's butt. Only at the lightest loads does NT hold any advantage over the Linuxes. Once the load moves to 12 clients, all the Linux platforms take commanding leads over NT."

More Hardware Support

Hewlett-Packard Company has just announced that it is the first major vendor to offer support and integration services for one of the industry's fastest-growing operating systems, Linux.

To broaden support for additional operating systems on its Intel(R)-based NetServer systems, HP has formed an alliance with Red Hat Software, Inc., one of the largest Linux distributors and service providers. The alliance will provide end-to-end service and support for HP customers. In addition, HP intends to port Linux to its platforms based on the IA-64 architecture.

"The density, performance and scalability of the HP NetServer LPr systems are integral to PSINet delivering business-class Internet services to customers," said Michael Mael, vice president of Applications and Web Services for PSINet Inc. "As PSINet evaluates the capabilities of Linux, HP is a clear choice of a hardware partner to forge ahead with new technologies."

The HP NetServer LPr, the first HP NetServer system to support Linux, delivers a fast, space-efficient and high-density rack solution that is ideal for ISPs and corporate IT departments. The system supports one or two Pentium(R) II processors at 400MHz or 450MHz, two hot-swap hard-disk drives and up to 1GB of memory. HP plans worldwide Linux support across the NetServer family.

Creative Labs has been advertising for a programmer to help port its drivers for various graphics and sound cards to Linux. They recently hired Jon Taylor for the position. He writes "I will be creating binary-only Soundblaster Live (OSS and ALSA) drivers to Linux, as the job posting requested. However, the story only *begins* with sound now! When I showed them GGI and the fact that I also know Linux graphics systems programming because of my years with GGI (and my education |->), they decided to also have me start up an in-house Linux graphics driver program!

I will be given NDA access to full specs and sample code for all 3Dfx, nVidia, 3DLabs and Rendition chipsets and will be able to produce fully 2D/3D accelerated binary-only KGI drivers for all of them, which through the magic of KGIcon will also be fully useable on standard Linux kernels. Mesa targets for all of these will also be written. When this is combined with the Soundblaster Live support and the power of the LibGGI userspace library system, Linux will have as least as much gaming and graphics capacity as Win32/DirectX. And new hardware will be supported at release time with Linux drivers, just like Win32.

Prominent game companies have told Creative that they will support Linux equally with Win32 if the driver and API support is there. It certainly looks like it will be."

Silicon Graphics Linux

Silicon Graphics, Inc. has just announced an expanded server strategy that includes extending the MIPS® processor roadmap and developing a server based on the Intel® IA-32 processor that will support Linux and Windows NT® operating systems. In addition, the company said IRIX®, its industry-leading, scalable 64-bit UNIX®-based operating system, will continue to be the premier operating system for high-end server systems. The company declined to provide timing or specific details on future products.

"Our customers have told us they want standards-based systems. This means they want Windows NT, UNIX and Linux," said John Vrolyk, senior vice president, Computer Systems Business Unit, Silicon Graphics. "SGI is focused on delivering the best server architecture regardless of the OS. The multi-year lead we have in our MIPS ccNUMA systems provides us the technical leadership required to develop scalable IA-32 and IA-64 machines. With the extension of the MIPS architecture, our current and prospective high-end server customers will have the best available system level performance. And, as we roll out our Intel-based systems, we will extend this performance advantage to the remainder of the server market."

"We are extending the MIPS processor family because IRIX remains the dominant form of UNIX for high-performance systems. We are the premier supplier in the high-end server market with hundreds of 128-processor systems installed, including the largest in the world - the 6,144 processor ASCI Blue Mountain system. As we enter the low-end of the market with 32-bit systems, we will support Windows NT and Linux, again giving our customers what they have been asking for," said Vrolyk. "By working closely with Microsoft on Windows NT and with the Linux community, SGI will bring its industry-leading skills in scalability to bear on the low-end server market."

"We will lead the low-end server market with full support for Linux from a leading UNIX systems vendor. SGI will provide the same high level of quality and support for Linux on its low-end IA-32 servers that it currently provides for its industry leading high-end MIPS processor-based systems. This will include the full support and backing of our extremely technical field teams and our technically sophisticated internal support organization," Vrolyk continued.

The company has actively worked with the Open Source community by supporting Linux since the 1994 introduction of its Indy® workstation and with support for Samba and HylaFax. In December 1998, the company joined Linux International and introduced support of Samba 2.0 for its OriginTM server line, enabling data consolidation and the world's fastest data interoperability among Windows® and UNIX platform clients. Silicon Graphics is the first commercial UNIX vendor to support Samba software, a widely used suite of open source programs that simplifies integration of multi-platform environments.

Linux Int'l Grows

Silicon Graphics announced on December 1, 1998 that it was joining Linux International. We have word from

Slashdot (slashdot.org) that IBM Software (www.software.ibm.com) has also joined Linux International (www.li.org), although the latter does not yet have a posting reflecting this on their web site.

This is likely an outgrowth of IBM's support for Apache's web server. IBM has been working hard, by various accounts, to figure out the best way to support Linux on their hardware, including direct support of the Open Source Software movement. IBM being laden with numerous lawyers, you can see this won't happen overnight. Still, there is clearly growing support in the company for these moves.

Linux on Netfinity

It has been reported that when Kyoto Sangyo University evaluated its needs for new computer science and engineering computers, it selected TurboLinux 3.0 from Pacific HiTech over other brands of Unix. These computers (603 of them!) will be delivered from IBM with TurboLinux installed. Support will be provided by Fuji Xerox. Sadly, it appears they will be set up to dual-boot with Windows NT 4.0.

Windows Refund Day

There may still be some of you out there who have not yet heard about "Windows Refund Day" (and who care). Many people have been buying PCs to use solely to run Linux (or some other non-Microsoft operating system), and yet can't find someone who will sell them a PC without any OS installed.

Certain people have managed to obtain a refund from the vendor by using a portion of the standard Microsoft End User Licence Agreement (EULA). The key part of this is:

> If you do not agree to the terms of this EULA, Manufacturer and Microsoft Licensing, Inc. ("MS") are unwilling to license the SOFTWARE PRODUCT to you. In such event, you may not use or copy the SOFTWARE PRODUCT, and you should promptly contact Manufacturer for instructions on return of the unused product(s) for a refund.

If you are in such a situation, see one of the many sites set up for this purpose, such as www.linuxmall.com/refund/. The big day is February 15.

Still More Kernels

After a slight respite during all the hype and hoopla surrounding the release of the Linux 2.2.0 kernel, development has resumed. Kernel 2.2ac2 is out, and 2.2.1 (which fixed a big security bug) is also available. Updates will likely be common for a while in the 2.2.x line. For all the latest, see www.linuxhq.org. For you keeners, no, development of the 2.3.x series has not yet begun!

The 2.0.x series is not being neglected either. Alan Cox has just announced kernel 2.0.37pre5, suggesting that 2.0.37 will be official soon.

TurboLinux

Pacific HiTech, the leader in high performance Linux, announced availability in the United States of its flagship Linux product, TurboLinux 3.0, which includes Corel WordPerfect for Linux. When TurboLinux 3.0 was introduced in Asia in December, it outsold Microsoft Corp's Windows NT (2000) at Japanese retail point of sale outlets, according to the high technology analyst firm Computer News.

In 1998, Pacific HiTech shipped more than one million units of TurboLinux. With offices in the United States, Japan and China, Pacific HiTech has quickly become the world's second-largest Linux company.

"While we are far and away Asia's largest Linux company, the U.S. market offers unmatched opportunities," said Cliff Miller, CEO of Pacific HiTech. "TurboLinux is the only version of Linux available in English, Japanese and Chinese and other European language versions will follow soon. This makes TurboLinux the clear choice for global corporations that need to deploy software on global scale with a consistent interface and library base."

Pacific HiTech will launch two new Linux server products into the United States market in March, Miller added. "For high performance Linux solutions," Miller said. "Just watch this space. We will surprise the market."

Samba 2.0!

The Samba Team is pleased to announce Samba 2.0, a major new release of the award winning Open Source UNIX(R) file and print server suite for

Microsoft Windows (R) clients.

Samba 2.0 has been benchmarked using the Ziff-Davis NetBench (R) benchmarking suite, as the world's fastest Windows server, achieving 193 megabits per second file serving performance on a Silicon Graphics (R) Origin 200 (R) server with 60 Windows clients.

Samba 2.0 features the first non-Microsoft implementation of the Windows NT Domain authentication protocols, allowing a Samba 2.0 server to be seamlessly integrated into an existing Windows NT Domain. Samba 2.0 is free from client license fees and is the perfect way to add additional high performance Windows file servers using existing UNIX or low-cost Linux(R) machines.

Samba 2.0 features the Samba Web Administration Tool (SWAT) allowing a Samba 2.0 server to be easily administered via any Web browser from any client. SWAT features an integrated help system and the ability to change user passwords on any Samba or Microsoft Windows NT (R) server.

Samba won the Windows NT Systems Magazine 1998 "Exceptional Products in Systems Management" award for Unix Connectivity Tools. In the January 1999 awards issue Samba received the following praise: “Samba is solid, well documented, and feature rich. It is proof that commercial quality software can be had for free.”

Samba has been adopted by Silicon Graphics (R) as a supported product, Samba for IRIX. Silicon Graphics said of Samba: “Samba for IRIX provides the best combination of features, performance, and data integrity among the available software solutions for serving files via the SMB/CIFS protocol from UNIX.”

Daniel Petzen of Ericsson Microwave Systems (a wholly owned subsidiary of Ericsson) writes: “We’ve been running Samba for about a year and a half. We have approximately 700 simultaneous users on 5 UNIX servers serving different NT domains. On our main domain Samba-server we have approximately 500 users and more than 900 connections during the main part of working hours. The server (a Sun E450) is humming along with an average workload of 0.15. None of the servers have ever crashed or failed to function properly due to Samba. We're quite impressed over here.”

LinuxPPC Live 4.0

Linux is, of course, available on many other platforms (PalmPilot!). For those of you with “PPC”-based Macintosh, visit www.linuxPPC.com to learn about LinuxPPC Live, “The easiest way to try Linux.” Available as a free download (40 MB), LinuxPPC Live is a special version of LinuxPPC that can actually boot right off a Mac OS hard disk. It's an long but easy download, consisting of only five files.

Live is perfect for learning Linux. It ships with the basic tools necessary to get started. Like Release 4, LinuxPPC Live uses a window manager called KDE to provide a graphic user interface for Linux, and includes Netscape Communicator, the Gimp, and basic network tools. Live requires the Mac OS, and about 105 MB of free disk space on a HFS (but not HFS Plus) volume. Users attempting to install LinuxPPC Lite are recommended to use Live.

ZipSlack

ZipSlack is a special edition of Slackware Linux that can be installed onto any FAT (or FAT32) filesystem with about 100 MB of free space. It uses the UMSDOS filesystem and contains most of the programs you will need. This means that you do not need to repartition your hard disk if you already have DOS or Windows installed. ZipSlack installs into a directory on your DOS filesystem. It can also be installed to and booted from a Zip disk.

This distribution is ideal for people who don't have a lot of hard disk space, do not have a fast Internet connection to download the entire distribution, or who want a Linux distribution they can carry around on a Zip disk.

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. E-mail the editor at editor@muug.mb.ca.