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MUUGlines

The Manitoba Unix User Group Newsletter

October 12, 1999: Gnome and KDE

One thing sadly lacking from X11 (the X Window System) for a long time was an easy to use, standard and consistent desktop environment. A couple of free software projects that have attempted to fill that void are Gnome and KDE. In this month's presentation, we'll look at both.

Bill Reid will present Gnome, and will cover a brief history of the Gnome project, the features of the Gnome environment, a demonstration of some Gnome applications and utilities, and the configuration of the Enlightenment Window Manager. Harry Lasker will present KDE, and tell us what make it his desktop environment of choice. Both will devote time to a question and answer period.

As always, we're open to suggestions for meeting programmes, not to mention presenters! Feel free to convince someone you know to give a talk at on of our meetings, and be sure to mention that it's very informal. We're not expecting professional public speakers here. Contact any of the board at board@muug.mb.ca or in person at our meeting if you have an idea!

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.

New From Inprise

Inprise Corporation (Nasdaq: INPR) announced on September 27 the availability of a preview release of the JBuilder Just-In-Time compiler (JIT) for the Linux operating system. The new JIT, available free on www.borland.com, increases the performance of Java 2 applications on Linux.

"The JBuilder Java 2 JIT for Linux is another step in Inprise's ongoing commitment to provide world-class development tools, databases and middleware for Linux," said Dale Fuller, interim president and CEO of Inprise Corporation. "The increased performance delivered by the JBuilder JIT is key to satisfying the demand for faster Java 2 applications on Linux."

The JBuilder JIT is based on the proven JBuilder JIT for Windows that has been shipping for over three years, and increases the performance of Java 2 applications over 33%.

JBuilder 3 is Borland's award-winning rapid application development tool for creating Java, business, database and distributed applications. The product includes comprehensive support for the Java 2 platform so programmers can rapidly deliver reliable and scalable Java applications; visual tools and reusable components for rapidly creating platform-independent applications, servlets, and applets; integrated and automated CORBA support; and Wizards and Visual Designers for creating reusable JavaBeans and Enterprise JavaBeans. The product's open environment also supports JDK 1.1.x, JFC/Swing components, JavaBeans, Enterprise JavaBeans, CORBA, RMI, JDBC and all major corporate database servers.

Inprise currently supports Linux with its Interbase and VisiBroker for Java products. Its upcoming Java development products for Linux include: JDataStore and JBuilder for Linux, which are currently in beta.

Extreme Linux Win

FSL Chooses Revolutionary Alpha Linux Cluster for Supercomputer; First Linux Cluster Chosen in Major Supercomputing Procurement

One of the fastest computer systems in the world has just been acquired by the Department of Commerce to help the National Oceanic and Atmospheric Administration (NOAA) further improve existing weather forecast models and develop new ones, Commerce Secretary William M. Daley announced.

The $15 million contract has been awarded to High Performance Technologies, Inc. (HPTi) of Reston, Va., to provide a High Performance Computing System to NOAA's Forecast Systems Laboratory (FSL), located in Boulder, Colorado.

“This acquisition will help researchers improve forecasts of severe weather such as thunderstorms, tornadoes, and winter storms, and ultimately, to save lives and property,” said Daley. “It will also provide a boost to the American supercomputing industry,” he added.

When the system is first installed, it will be running a third of a trillion arithmetic operations per second, providing a computer system that is 20 times more powerful than the computer system the Forecast System Laboratory presently uses. By the final upgrade in 2002, the HPTi supercomputer will be processing about four TeraFLOPS of data or four trillion arithmetic computations per second.

HPTi will be delivering a solution for the Forecast Systems Lab by integrating the best of proven technologies, a “best of breed” approach. HPTi was founded in 1992 to facilitate the infusion of advanced high performance computing (HPC) technology into the broader information technology (IT) marketplace, while applying the discipline learned from the IT marketplace back to the HPC community. During these seven years HPTi has seen significant growth, expanding as a small business from four to over 180 employees. The basis of HPTi's successful growth is performance for its clients and a focus on its core capability: “Creative Application of Emerging Information Technologies”. Like the system for FSL, HPTi's experience is in working with "Extreme Systems" large, complex, and fast.

For the FSL HPCS solution HPTi has four teammates -- Compaq, University of Virginia (UVa), Myricom, and Patuxent Technology Partners (PTP). Compaq provides the core computational system -- the Alpha, extensive experience with installed large clusters, and the commitment to a clustered approach for their next-generation systems.

Myricom is the provider of the high performance processor interconnect that enables the system to scale thousands of processors. PTP is providing an integrated storage solution from their experience as pioneers in Storage Area Networks. UVa was the site of HPTi's benchmarking activities and hosted the live test demonstration to NOAA and FSL representatives. HPTi's direct and client related relationships with UVa have focused on the application of advanced cluster technologies in HPC.

Red Hat 6.1 Announced

Red Hat, Inc. (NASDAQ:RHAT), a leading provider of open source solutions, announced October 4th the release of a suite of Official Red Hat Linux 6.1 products. The latest release of the award-winning Red Hat Linux operating system incorporates easy installation, software update information and access, and improved system management capabilities. These new features enable users to harness the power of open source software in the demanding enterprise and Internet applications that run the day-to-day business of companies worldwide.

Red Hat Linux 6.1 extends Red Hat's commitment to customer service and the strength of open source development by incorporating improvements that make it easier to install, maintain and manage Linux-based computing environments. Users can move quickly through installation with graphic-based directions, choosing from GNOME, KDE, server or custom interface settings, with seamless integration of software RAID configurations to safeguard critical data and application availability. Additionally, the PXE 2.0 technology (part of the Wired for Management Baseline 2.0) enables Red Hat Linux 6.1 installations to be done across the network, with no need for local media.

Red Hat Linux 6.1 also provides customers with fast access to the latest software technology from Red Hat through the Red Hat Update Agent, an online customer service application for retrieval and management of software updates. Red Hat has combined the RPM package management technology with the Internet capabilities of Red Hat Linux to seamlessly enable customers to take advantage of the continuous technology improvements offered from the open software development community.

"We expect that the improvements in installation, service, support and performance built into Red Hat Linux 6.1 make it an asset to enterprise networks," said Bob Young, CEO of Red Hat. "Red Hat Linux 6.1 combines the power, stability and flexibility of Linux-based open source operating systems with tools and services to handle critical business applications that ensure the peace of mind for corporate users."

Red Hat Linux 6.1 applies many advances in the 2.2.12 Linux kernel and the collaboration of the open source community, including improvements for high availability Internet server clustering and new Web or email-based configuration support for the Apache Web server.

"Open source continues to make great advances and delivers innovation to enterprise users worldwide. We see rapid advances in Linux-based operating systems as a result of the open source development model," said Young.

"Red Hat Linux 6.1 will be an attractive option to the businesses, Internet service providers, government agencies and universities that make up nearly three-fourths of our customer base," said Michael Lambert, senior vice president, Dell Enterprise Systems Group. "We plan to offer this OS on selected products throughout our entire product line, from notebooks to servers, in the months ahead."

Additional features of Red Hat Linux 6.1 include:

The first distributed English version of Sun Microsystems' office suite Star Office 5.1a, a complete office platform featuring word processing, spreadsheets, e-mail, graphics, web publishing, scheduling, database and management applications.

Full LDAP (Lightweight Directory Access Protocol) integration, enabling large network administrators to manage distributed computing by authenticating and maintaining information about users and network services.

128-bit secure signature technology, Red Hat public key verification of the source of Red Hat Linux 6.1 updates. Available in the U.S. and Canada only.

Through collaboration with Intel Corporation, Red Hat has also included PXE server support, optimizations for the Intel Pentium III processor, and remote management enhancements through support for the Wired for Management Baseline 2.0 specification as part of Red Hat Linux 6.1.

"Intel continues to work closely with Red Hat and the open source community to make Linux run best on Intel Architecture," said Michael Fister, Vice President and General Manager of Intel's Enterprise Server Group. "Red Hat's new release of the Linux operating system has been optimized for the Pentium III Xeon processor and this combination offers customers the performance that is required in today's Internet economy."

Pricing and Availability

The Official Red Hat Linux 6.1 is available in a variety of packages to enable different users to take advantage of open source technology. All boxed packages include an Installation Manual and Reference Guide. Red Hat Linux 6.1 can also be downloaded from ftp.redhat.com. Available in the U.S. and at international sites, the boxed versions can be purchased in select retail outlets starting October 18 and can be ordered directly from www.redhat.com.

Standard, a package including two operating system CDs, one StarOffice 5.1a CD, 90 days of email support and 30 days of priority online access-for $29.95.

Deluxe, the best way to try Red Hat Linux with two operating system CDs, one StarOffice 5.1a CD, two workstation application CDs, 30 days of phone support, 90 days of email support and 180 days of priority online access-for $79.95.

Professional, the package for serious business users with two operating system CDs, two workstation application CDs, DB2, three server application CDs, one secure server CD, 30 days of phone support, 90 days of email support, 30 days of Apache configuration support and 180 days of priority online access-for $149.95. Available in the U.S. and Canada only.

Corporations and ISPs can purchase additional support packages from Red Hat's Service Center. Several packages are tailored for specific customer needs, ranging from per-incident packages to full-blown, 24x7 unlimited support. Red Hat services and training are available worldwide.

Open Source Solaris?

There have been numerous reports of comments from Sun chief technology officer, Greg Papadopoulos that part or all of the Solaris source code will be released over time under Sun’s Community Source License (SCSL).

What does this mean for Linux? It could benefit, as concepts and algorithms from Solaris are exposed and used in Linux. On the other hand, the quantity of code suddenly introduced would take a long time to be understood and absorbed. For an example, see the results of Netscape’s Navigator being released under a similar license.

Given the restrictions of Sun’s license, and the size of the code, it’s unlikely that there will be any sudden change to the progress of Linux’s development and spread. So far, it’s only been talked about, and no official announcement has been made. When the actions of Sun become clearer in the next few months, the consequences will, too!

CUPS Unveiled

Michael Sweet of cups.org writes “Well, it's taken us long enough (nearly 2 years since we started the project), but the Common UNIX Printing System, or "CUPS", is finally out of beta and ready to replace all those 1970's line printer spoolers masquerading as printing systems. What is CUPS, you ask? It's basically a completely new printing system based on the Internet Printing Protocol ("IPP") that supports PostScript and non-PostScript printers and a variety of different file formats to make your life easier.

CUPS provides all of the normal printing commands ("lpr", "lp", etc.) - you still use "lpr" to print from Netscape, etc. However, these commands take on a new life with CUPS - instead of bringing up an application every time you want to print, you can print most images, PDF files, etc. directly. CUPS figures out the type of file and runs any necessary filters to format it for the printer. Have a file that CUPS doesn't handle? No problem, just add a filter and CUPS will handle it, for any printer you have.

Printer drivers are provided for PostScript and HP PCL based printers. We're hoping that the filters provided with CUPS (including a PostScript RIP based on GNU GhostScript) will encourage independent developers and printer manufacturers like EPSON to start developing drivers that use CUPS. Only time will tell.

CUPS can be downloaded from our website at cups.org and is provided under the terms of the GNU General Public License. Commercial printer drivers based on CUPS are available from our main website.

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.