

# March 9: Virtual Network Computing

This month, Kevin McGregor will be demonstrating and discussing VNC, the pcAnywhere-like tool for Unix and other platforms for cross-platform remote control. VNC has servers and clients for Linux, Solaris, Windows, the Macintosh and any web browser that runs Java. We'll try to show off as much of this as possible, depending of the equipment available.

Never say that we don't try to provide timely information for our members. It was just last month when we had a discussion of VNC and here we are with a presentation. Could we be any more responsive?

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 looking for professional public speakers here. Contact any of the board if you have an idea!

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.

### **Low-cost 3D Display**

Two sculptors have developed an inexpensive method of modifying a standard LCD colour screen to display three-dimensional images. It's not holography per se (at least to my understanding), but it does display very realistic and detailed stereoscopic images. Quake fans are already salivating, I'm sure!

"RealityVision has demonstrated and refined the technology over the last couple of years. Trayner and Orr believe that in future systems the 3-D effect could even be presented to several people at once, contrived to follow a moving observer. The display is easier to view than other 3-D display systems and avoids the left-right image reversal possible with established parallax methods, the company claims."

See the entire article at http://www.eetimes.com/story/industry/systems\_and\_software\_news/OEG19990219S0003

### 3DFX Supports Linux

To mark the opening of the Linux World Conference and Expo, 3Dfx Interactive® Inc. announced it is launching a broad effort that will enable developers to create content for 3Dfx Voodoo® accelerator products on several platforms, including the popular Linux® operating system. As part of a multifaceted program, 3Dfx launched several new sections of its Web site to serve as a resource for developers using Linux and other operating systems based on UNIX®. The company also announced that it is releasing 2D specifications for Voodoo Banshee<sup>TM</sup>, its award-winning graphics accelerator, to the Open Source<sup>TM</sup> community.

Available at http://www.3dfx.com, the new Web content is designed to help developers create games, interactive content and visual business applications

March 1999 Vol. 11 No. 7

for 3Dfx Voodoo acceleration technology. On the 3Dfx Web site, developers will find Voodoo Banshee 2D specifications, 3Dfx Glide® libraries for Linux (developed for 3Dfx and Linux users by independent software developer Daryll Strauss), and links to Mesa, an OpenGL® compatible library for Open Source platforms.

"This effort further extends our reach into the development community, which has always been critical to our success," said Scott Sellers, senior vice president of product development at 3Dfx Interactive. "By taking steps to ensure that key 3Dfx software drivers and APIs support Linux and other platforms, we are providing game and software developers with the chance to create content for their preferred graphics platform using their favourite development environment." In addition to releasing product specifications and software drivers, 3Dfx also will host an on-line newsgroup to raise Linux awareness in the 3Dfx community. For serious Linux developers, the company will administer a focused list server that allows participants to address specific issues in detail. Both services will be available via the 3Dfx site.

"The release of 3Dfx product specifications, libraries and drivers to the Linux community is recognition that Linux is a powerful development platform," said Paul McNamara, vice president of business development, Red Hat Software. "We are pleased that, as an industry leader in 3D graphics accelerator technology, 3Dfx recognizes Linux as a significant platform for cutting-edge content and application development."

See http://www.3dfx.com/ for the full story and more details; there's a wealth of information.

### **Unix in Perl?**

Well, not the whole thing, but a goodly fraction of the command utilities. Here's the introduction from Tom Christiansen, Project Manager.

The Unix Reconstruction Project's goal is quite simply to reimplement the classic Unix command set in pure Perl, and to have as much fun as we can doing so. Here's why:

1. Laziness: I'm tired of wasting my life trying to cobble together make-shift work-arounds to do the job of

fundamental tools that are broken or absent on systems various and sundry. And if it's hard on me, imagine the poor guys on systems I must charitably refer to as tool-challenged, those lacking even these most fundamental of programmer tools.

- 2. Impatience: I get more than a bit impatient when someone has some simple problem that can be trivially done using one or three basic commands, but when I tell them how to do it, they whine about not being on a proper Unix system and how they therefore can't do the obvious thing.
- 3. Hubris: It's listed last, but this is the most important reason simply being able to say that we did it. Why do we climb mountains? Why do we learn to ski? Because it's there, and because it's fun!

Not only can most basic commands be implemented using just a wee bit of Perl code, once these have been done, they're automatically much more powerful and more robust than the old versions. No more line-too-long errors. No more fixed-buffer problems. Any pattern matching is automatically turbocharged.

See the whole story at http://language.perl.com/ppt/

### SGI: Open Source?

Silicon Graphics, Inc. (NYSE: SGI) announced that it is embracing the Open Source model of software development and will share key software innovations with the fast growing Open Source community. Known as a strong advocate for open technology, Silicon Graphics is committed to contributing technology from its core competencies in visualization and high-performance computing to the Open Source community to help solve the toughest computing problems. The company's Open Source strategy is initially focused on solutions for small servers for high-volume market areas.

"The Open Source software model is the future of UNIX software development. This fast-developing community of talented and committed engineers is eager to work with higher levels of technology," said Kurt Akeley, vice president, chief scientist and cofounder, Silicon Graphics. "With Silicon Graphics' firm commitment to accelerate adoption of the Open Source model, the community will further extend its

Vol. 11 No. 7 March 1999

spectrum of highly innovative applications and solutions."

Silicon Graphics is currently building engineering teams to develop and support Open Source products. Throughout 1999, Silicon Graphics will migrate to the Open Source community key technology from its IRIX operating system, the first UNIX operating system to support complete, integrated 64-bit and 32bit environments. IRIX was also the first operating system to support advanced ccNUMA scalable features and the first to support advanced real-time and graphics features. The IRIX operating system includes state-of-the-art technology that enables increased system scalablity and performance, memory management, high-performance networking, system management and administration tools. Silicon Graphics is actively reviewing how to deploy these technologies into the Open Source community.

#### Time To Switch!

Check out the MSNBC article on Linux at http://www.msnbc.com/news/244979.asp. It's quite Linux-positive, and as we know, that benefits all versions of Unix to some extent. This article compares Windows NT Server 4.0 to three distributions of Linux: Caldera, Red Hat and SuSE.

"We configured each of the Linux boxes to run Samba (the SMB server) and Apache (the Web server) — but that's it. We weren't running DNS or Sendmail. Since they were being evaluated as servers, the Linux boxes were not running the X display system. The NT box was running Internet Information Server 4.0 under NT 4.0 with Service Pack 4. Again, no additional services were running.

According to ZDLabs' results, each of the commercial Linux releases ate NT's lunch. Our tests also revealed that Apache for OpenLinux is superior to Apache for Red Hat and SuSE. Moreover, Samba for Red Hat scales better than its counterparts."

Of course, not everyone agrees. Take a look at some of the responses to the article published on-line: One of them labels the authors "completely irresponsible", apparently for not complaining how insecure Linux is compared to Windows NT.

# RealNetworks Support for Linux

On February 22, RealNetworks, the recognized leader in streaming media, announced the final releases of RealProducer(TM) Pro G2, the powerful content creation tool for producing professional quality streaming media presentations, and RealProducer Plus(TM) G2 for Compaq Tru64 UNIX operating system, enabling anyone to create and publish RealAudio(R) and RealVideo(R). Also available is the beta release of RealProducer Plus G2 for the Linux platform, enhancing the suite of media creation tools designed to extend the capabilities of RealSystem(TM) G2 and produce next-generation streaming media content.

This is only the "Producer" component, but it bodes well for future client support.

### **SCO: Linux Compatible**

SCO's February 24 press release has an interesting note buried in all the verbiage:

UnixWare 7 Release 7.1 features the Webtop - based on SCO Tarantella technology - and has new levels of reliability, support for Linux applications, enhanced interoperability, as well as new file, print and backup services. The products for this new release are the brand new UnixWare 7 Business Edition and the enhanced UnixWare 7 Departmental Edition. SCO will unveil additional information on a new configuration, UnixWare 7 Data Center Edition, and updates to the remaining UnixWare 7 configurations next month.

Yes! SCO Unix will now run Linux binaries! We don't expect this to cause you to run to the store to buy it, but it's still an interesting development. Mind you, they probably didn't have to do much to achieve this, given that SCO binaries have run on Linux for a while now.

## Sun Helps UltraSPARC Linux

Sun Microsystems, Inc. announced an initiative that will offer board-level solutions to a select number of system integrators to assist them in building powerful, low-cost Linux solutions running on the SPARC(TM) technology-based platform. As a result of this initiative, UltraSPARC technology-based boards run on

March 1999 Vol. 11 No. 7

both of the fastest growing enterprise operating environments, Solaris(TM) and Linux.

Sun's SPARCengine Ultra(TM) AXi processor boards now enable systems integrators to take advantage of their speed and high level of integration to design high-performance platforms that run Linux. Powered by UltraSPARC-IIi processors, the SPARCengine Ultra AXi boards are ideal for running Linux and provide a new performance and scalability option to small and medium internet service providers (ISPs)

"The combination of both Solaris and Linux support is powerful in the service provider market," said Marge Breya, vice president of marketing, Sun Microsystems, Microelectronics. "The Linux and Solaris operating environments have established their ability to support enterprise and ISP customer needs. Our new initiative will enlist the support and participation of selected system integrators who will design high-performance UltraSPARC platforms that run the Linux operating system."

### **Serious Storage for Caldera**

Caldera has teamed up with MTI Technology to provide a mid- to high-end RAID storage subsystem. Up to 655 GB, and yes, you can back it all up, too!

MTI Technology Corp. and Caldera Systems Inc. have announced the integration of Linux into an enterprise RAID storage solution. MTI's Gladiator RAID subsystem, Infinity 1630 tape library and Caldera Systems' OpenLinux 1.3 have been combined to provide a complete enterprise server/storage solution for businesses of any size. The new combined server and storage solution will be demonstrated at LinuxWorld Expo and BrainShare in March. Product availability is expected in the second half of this year.

The integration of OpenLinux with MTI's RAID storage solution provides scalability, stability, RAID protection and high performance to companies managing mission-critical content including customer databases, graphics and libraries. The built-in Infinity 1630 automated tape library provides "hands off" backup and restore operations using high-performance DLT tape technology.

"OpenLinux coupled with MTI's Gladiator RAID

subsystem and Infinity tape library is the first server/storage solution to provide the stability, speed and cost-effectiveness of Linux, with the ability to scale to over half a terabyte of storage," said Benoy Tamang, Caldera Systems' vice president of marketing communications. "Businesses of any size will benefit from this end-to-end solution that also provides installation, training and support."

"Linux is widely recognized as a powerful alternative to UNIX and Windows NT for application development and IT infrastructure," said Kevin J. Liebl, MTI vice president of marketing. "MTI plans to offer high-performance, highly available, scalable storage solutions to the rapidly growing Linux marketplace. Our goal is to work with Caldera Systems to move Linux into mission-critical IT environments."

MTI will provide all installation, training and support responsibilities for customers.

The Gladiator RAID subsystem is based on advanced RAID and storage technology that provides high performance and very high data availability for customers running mission-critical applications. It is a modular storage solution for data centers with medium-to large-capacity storage requirements scaling up to 655GB. Gladiator includes hot-swappable disk drive and power supplies, and supports multiple, simultaneous RAID levels 0, 1, 0+1 and 5. An included storage management application makes it easy to configure, manage and monitor the storage subsystem.

The MTI Infinity 1630 automated DLT tape library is available in 16- and 30-cartridge configurations with up to four DLT7000 tape drives. In its full configuration, it supports up to 2.1TB of storage capacity with an aggregate throughput of 40MB per second (compressed). The Infinity 1630 is supported by more than 40 leading data storage management applications.

### **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.