MUUGLines

The Manitoba UNIX User Group Newsletter

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Next Meeting: June 9th, 2009

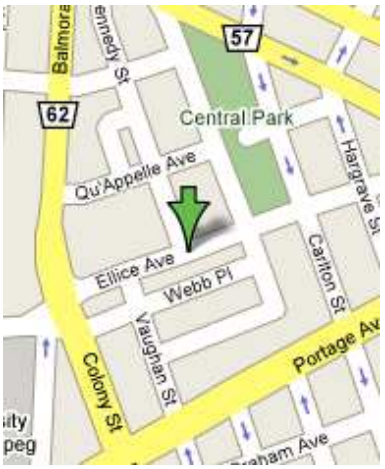
TrustedBSD Architecture

The TrustedBSD project develops advanced security features for the FreeBSD operating system. Features from TrustedBSD have also made their way into other operating systems, such as NetBSD, OpenBSD, Mac OS X, and Linux.

Christian Peron is a FreeBSD security developer. He will discuss the security deficiencies in the architectures of most existing operating systems. Christian will show us the technical and architectural changes that the TrustedBSD project made to the FreeBSD operating system to enhance security. Some of the changes include separating the access control framework from the security policy, modifying the kernel to support an auditing framework, and setting up an intrusion detection system.

Where to find the Meeting

Meetings are held at the IBM offices at 400 Ellice Ave. (between Edmonton and Kennedy). When you arrive, you will have to sign in at the reception desk, and then wait for a jackalope to take you (in groups) to the meeting room. Please try to arrive by about 7:15pm, so the meeting can start promptly at 7:30pm. Don't be late, or you may not get in. (But don't come too early either, since security may not be there to let you in before 7:15 or so.) Non-members are welcome, but may be required to show photo ID at the security desk.



Limited parking is available for free on the street, either on Ellice Ave. or on some of the intersecting streets. Indoor parking is also available nearby, at Portage Place, for $5.00 for the evening. Bicycle parking is available in a bike rack under video surveillance located behind the building on Webb Place.

Sending Us E-Mail?

Due to the amount of e-mail MUUG receives, we've set up an auto-reply to give you jaunty feedback, and redirect some of the e-mail to the appropriate places. Why not look at **http://www.muug.mb.ca/about.html#contacts** first?

Share Your Thoughts

E-mail us with your comments on the newsletter, whether it's criticisms or commendations, and continue to send in articles or ideas for the same. Specifically, what sort of material you would rather see: Announcements, technical articles, new products, or…?

Vancouver Supports Open Source and Open Data

Earlier this month, the city of Vancouver passed a motion that Vancouver should move towards open data, open standards, and open software. The motion brought forward proposed the following resolutions:

> THEREFORE BE IT RESOLVED THAT the City of Vancouver endorses the principles of:
>
> - Open and Accessible Data - the City of Vancouver will freely share with citizens, businesses and other jurisdictions the greatest amount of data possible while respecting privacy and security concerns;
> - Open Standards - the City of Vancouver will move as quickly as possible to adopt prevailing open standards for data, documents, maps, and other formats of media;
> - Open Source Software - the City of Vancouver, when replacing existing software or considering new applications, will place open source software on an equal footing with commercial systems during procurement cycles; and
>
> BE IT FURTHER RESOLVED THAT in pursuit of open data the City of Vancouver will:
>
> - Identify immediate opportunities to distribute more of its data;
> - Index, publish and syndicate its data to the internet using prevailing open standards, interfaces and formats;
> - Develop appropriate agreements to share its data with the Integrated Cadastral Information Society (ICIS) and encourage the ICIS to in turn share its data with the public at large
> - Develop a plan to digitize and freely distribute suitable archival data to the public;
> - Ensure that data supplied to the City by third parties (developers, contractors, consultants) are unlicensed, in a prevailing open standard format, and not copyrighted except if otherwise prevented by legal considerations;
> - License any software applications developed by the City of Vancouver such that they may be used by other municipalities, businesses, and the public without restriction.

The motion identifies the Integrated Cadastral Information Society as a not-for-profit society involving local governments, the provincial government and major power utilities, with an aim to share spatial data.

Many people have discussed the advantages and disadvantages of using open source software in a large organization; we don't need to rehash the discussions here. Vancouver's commitment to open data, however, is worth noting. Open data isn't quite as simple as it seems.

Governments have gathered and organized significant data collections, such as spatial and mapping information, that can be quite valuable. Many people have debated about what the governments should do with this data. Should they keep it as proprietary information, and not share the data? Should they give it out for free, since it was developed with public money? Or would they serve the taxpayers better by charging user fees, and reducing taxes by a corresponding amount?

Privacy is another concern. In the past few years, society has raised the standard on how we expect organizations to treat personal information. Governments are particularly sensitive about this because citizens are required to supply personal information to them; you can't just choose to not do business with a government because you don't like their privacy policy. Organizations may have to dedicate significant effort to ensure that they have purges all confidential information from any data they release; some government departments struggle to get the funding to cleanse the data properly

Finally, when you share open data, you need the infrastructure and support staff to store and distribute the data to the public. Storage and bandwidth are relatively cheap, but not free. Vancouver's motion refers

to sharing spatial data, which can grow into very large databases.

Open data is a great idea, and it benefits our society as a whole. However, the organization offering open data usually ends up absorbing most of the direct costs, while others receive the direct benefits. We should commend Vancouver for committing itself to this initiative.

Wolfram Alpha

Wolfram Alpha (**http://www.wolframalpha.com**) opened in May. It is a "computational knowledge engine". Instead of searching for information from the web, it tries to compute answers to your questions from its own internal knowledge database.

Stephen Wolfram initiated this project in 2005. Wolfram is known for creating the computational program Mathematica, and writing the book *A New Kind Of Science*, which advocates the systematic study of computational systems. Wolfram Alpha builds on these concepts. It is in some ways a broader version of Mathematica, designed to give short answers to factual questions. The builders of Wolfram Alpha try to teach it about a domain of knowledge, and how the facts in its knowledge domain interrelate. It has a large collection of algorithms that manipulate the information it has in order to answer questions about its knowledge domains.

Wolfram Alpha is not a search engine for documents on the web. The project's team work as curators, building a database of facts, rather than opinions. The system uses this carefully filtered database to answer queries. However, for many queries, it can provide you with a bibliography of the sources that it used to answer the question, and can provide links to outside web pages.

For example, if you type in "What is the population of Selkirk?" it will list its assumptions ("Assuming Selkirk (Canada) | Use Selkirk (United Kingdom) instead") and then give an answer of "9653 people (2004 estimate)". If you click on the "Source Information" link, you can see the underlying sources that it used to collect the data.

Of course, since it's a relatively new project, the internal database is limited. It performs very well in the domains that it knows about, but you can quickly step outside of those domains. For instance, if you type in the key words "Apple RIM", it will give you detailed charts comparing Apple stocks to Research In Motion stocks. However, if you type in "Blackberry iPhone", the system replies that it doesn't know what to do with your input; it suggests that you try looking for blackberry under food, and lists iPhone as a future topic.

It's an intriguing product, striking out in a different direction from the traditional search-engine based query web sites.

An essay on the potential of Wolfram Alpha can be found at **http://www.twine.com/item/122mz8lz9-4c/wolfram-alpha-is-coming-and-it-could-be-as-important-as-google**.

Flock 2.5 Released

Flock is a fork of the Firefox browser that aims to be a social web browser. It works to organize connections from various social networking sites into a more convenient package. Instead of having an open browser window for each site, it attempts to integrate information from multiple sites into a single presentation. For example, you can group conversations on Twitter and other messaging services into a single "People" sidebar.

It also provides assistance for blogging. Flock has a built-in blog editor and publisher that supports most of the major blogging platforms. It has a web clipboard that helps you cut and paste links, pictures and text from other web sites. Flock also has a built-in photo uploader.

You can download it at **http://www.flock.com**.

Virtual Machines and Windows 7

Microsoft has offered a release candidate for its upcoming Windows 7 operating system. One interesting aspect of this release is how it will support compatibility for applications that require the older Windows XP operating system. It will support XP mode by starting a virtual machine, and running Windows XP on that virtual machine.

There are limitations, of course. This virtual XP box will only be available in the higher-priced editions of Windows 7. The virtual machine requires a CPU that can support hardware virtualization. Also, you would need duplication of software; for example, to be protected from viruses, you would need to run anti-virus software on both the Windows 7 operating system and the virtual Windows XP system.

This is another example of how quickly virtualization is becoming a ubiquitous and more-or-less transparent approach for desktop computing.

FreeBSD Hierarchical Jails

FreeBSD offers hierarchical jails as a new feature. With this, a jail can be a subset of another jail. Each child jail inherits the restrictions of the parent jail, but can add additional restrictions.

A jail provides a safe environment for a set of processes that is separate from the rest of the system. They are often used to run network services. When setting up a jail, an administrator will assign a directory to be the root directory of the jail. Processes can not access any files outside its assigned sub-tree. The administrator can also set up the jail with limitations on users, networking, and other system resources.

Moblin for Netbooks

Intel announced a beta version of Moblin v2.0, a Linux based operating system for netbooks and other mobile devices. While Version 1.0 was based on Ubuntu, Version 2.0 is based on Fedora.

It has a custom user interface, with a different feel from most desktops. While the traditional desktops display a choice of applications to run, Moblin presents functions to its users. Users select what they want to do, and Moblin will transparently manage the underlying applications that provide those functions.

Novell has agreed to be a partner in promoting Moblin.

The competition for a part of the netbook market is heating up. The Android platform, which is backed by Google, is expanding from smart phones into netbooks.

Lego for Older Kids?

Lego and Brickstructures have announced additions to their Architecture line, with kits to build models of Frank Lloyd Wright's Fallingwater house and the Guggenheim museum. The first kits in the series are released in conjunction with the opening this past month of a Frank Lloyd Wright exhibition at the Guggenheim.
(**http://www.wired.com/gadgetlab/2009/05/frank-lloyd-wright-lego-sets/**)

I wonder if they will also release Lego mini-figures for the Architecture line, such as the Avant-garde Architect, the Reactionary Critic, and the Frustrated Civil Engineer.

What Do You Think?

If you have a How-To or other idea, and aren't ready to give a presentation at MUUG, an article is a great alternative! If you can write better than the editor, that's terrific; if you can't, submit it anyway and we'll get it into shape for publication. We know that many of you have some great ideas and lots of knowledge. Why not share? Send Mail to: **editor@muug.mb.ca**.