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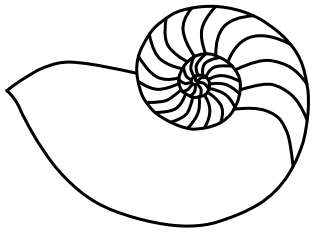

MUUGlines

The Manitoba UNIX User Group Newsletter

June 10, 2003: Linux Clusters

The ability to cluster servers is one of the biggest steps toward acceptance of Linux in mission-critical applications. There are several Linux clustering products available, and Red Hat now bundles two different types with their Enterprise server product. Clustering can increase both the reliability and the scalability of many different types of applications. Three types of clustering will be discussed (Failover, LVS & Beowulf) and some typical examples of each will be presented by Adam Thompson.

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 someone to take you (in groups) to the meeting room. Please try to arrive by about 7:15 PM, so the meeting can start promptly at 7:30 PM. Don't be late, or you may not get in.

Limited parking is available for free on the street, or in a lot across Ellice from IBM, for $1.00 for the evening. Indoor parking is also available nearby, at Portage Place, for $2.00 for the evening.

Free Stuff This Month

We'll have two O'Reilly books to give away this month, and **you won't want to miss** this meeting. First is "Linux Server Hacks", reviewed in this issue by Michael Doob. Second is "The UNIX CD Bookshelf, version 3.0" – that's right, ***bookshelf*** – which is worth around over $200 by itself. It includes a paper copy of UNIX In A Nutshell and a CD with the entire contents of seven O'Reilly books, including UNIX In A Nutshell. Look for reviews of these books in upcoming issues.

You Might Know

On May 13th, Kevin McGregor gave us a presentation on the "alpha23" version of Samba 3.0. Sure enough, look at the announcement that appeared on the Samba.org home page the day after:

(14 May, 2003) *Samba-3.0alpha24 available for download*

The latest alpha snapshot of the SAMBA_3_0 CVS tree is available for download. It is being provided for testing purposes. The full release notes and source code (http://us4.samba.org/samba/ftp/alpha/) can be found on Samba mirrors. RedHat RPMs for 6.2, 7.3, 8.0 and 9.0 are also available in the Binary_Packages (http://us4.samba.org/samba/ftp/Binary_Packages/RedHat/) download area.

Tune in for updates on Samba's progress in the September newsletter, after the summer break.

Linux Server Hacks

Reviewed by Michael Doob
Publisher: O'Reilly
Publication Date: Jan 2003
Author: Rob Flickenger
Pages: 240

This book is definitely not bedtime reading. The reasons will be clear by the end of this review.

One way of visualising the UNIX operating system is like an onion. You start by learning the shell commands (the outside layer) and gradually work your way into the more inner workings. You're at the heart of the onion when you get to the kernel. This book changes this analogy; in fact UNIX is more like a fractal. You learn about the outside layer, but when you look at some of the internals in more detail, in fact a whole new onion appears where you didn't see one before.

The subtitle of this book is "100 Industrial-Strength Tips & Tools". This does indeed reflect the content – although the tips and tool are divided into eight different areas, almost all can stand alone as an independent topic of interest.

Some topics are concerned with running an efficient and secure operating system. Advice about services that might be deleted (such as `automount` or `named`) from a particular system is given; programs that run *suid* that might be deleted

also are suggested (when was the last time you used the at command?); many of the default drivers in the kernel can be removed if they were compiled in (when was the last time you really read /var/log/dmesg to see what's really loaded at boot time?).

A checklist of things to do when a user leaves your system is given. For example, you took the user out of /etc/passwd, but what if there is a .rhosts file? These are important for anyone who really needs to worry about having optimum efficiency with reasonable security, and while what is presented is certainly available from man pages or other books, it's nice to have it all in one place.

Another set of topics is about various bits and pieces of the file system. Want to set up a file that can't be linked to using `ln` or removed using `rm`, even with root access? Look at the immutable property set with `chattr` and viewed with `lsattr`. You know about /proc/cpuinfo? There's lots of other information in the /proc directory that is described within this book.

Other sections concern the efficient implementation of various necessary tasks for administering a system. For example, many tips are given for making backups, either over the net or otherwise, with tools like `rsync`. Both full and incremental backups are discussed, including a clever way of keeping unchanged files in an incremental backup as links rather than copies.

Still more is given about networking, including tips involving iptables and masquerading. Using ssh over the net is also discussed. For example, suppose you want ssh to do a task on a remote computer using a cron job on the local one. Whenever such a task is done from a shell prompt, it is necessary to give the password on the other computer before ssh will start to execute, so it would seem that trying use cron is impossible. However by using ssh-keygen properly and by setting the keys on both machines appropriately, it can be done.

The flavour of this book is hopefully apparent. The topics are somewhat scattered, but with each one has some interesting idea. This book simply must be read with a keyboard attached to a running Linux system nearby. If you like playing with the various arcane properties of Linux, this is a book for you. If not, you might as well leave it alone.

And this is why this book is not bedtime reading. You'll start to read a section and you'll have this impossible-to-ignore urge to fire up the nearest Linux box to try things out. This is not good if you hope to relax and drift off to sleep; it's even worse if your sweetie happens to be with you. Nonetheless, this book is a lot of fun.

The Jargon File

Announcement by Eric S. Raymond

The Jargon File is a central part of the heritage of the Linux and open-source movements. As we approach the File's 30th anniversary, it is my pleasure and honor to bring the hacker community a major new release, 4.4.0. It has been made available at:

http://www.catb.org/~esr/jargon/

This is a not a mere point release, but a major revision incorporating weeks of work. The file masters have been converted from Texinfo to XML-Docbook; as a result,

- There is a real change-log file; you can see which entries have been added, changed, or deleted in each release since 4.0.0.
- The new File includes cartoons and illustrations. In addition to the Crunchly cartoons from the paper edition (the New Hacker's Dictionary) there are other photographs and illustrations of historical and current interest.

There have been many content changes as well:

- The entries have been systematically weeded out with Google searches, so the File reflects live usage better than ever before. Over a hundred bogus entries were removed.
- Copies of all old versions still extant are now available in an archive directory, together with the tools I used for reconstructing the entry histories.

As usual, many entries have been revised and updated. Enjoy!

SCO v. IBM

We'll write about this when something interesting has happened.

Rise, Son Of Cygna!

ScummVM is an implementation of LucasArts S.C.U.M.M. (*Script Creation Utility for Maniac Mansion*) interpreter, used in games such as Monkey Island, Indiana Jones, Day Of The Tentacle,

Sam and Max, and many more. Some things are still missing, and some games cannot be completed yet. There are quite a few known bugs. Regardless of the bugs it is still possible to play some games all the way through to the end. Still other games do not load at all.

ScummVM 0.4.1, a stability-focused point release, is now available for download. Changes since 0.4.0 include:

- Several crashes/bugs have been fixed in Curse of Monkey Island.
- Several iMUSE and music-related bugs have been fixed.
- AdvMame3X is new, giving a 3x scaled and AdvMame-smoothed game.
- Fixed airport doors in Zak McKracken
- Fixed crash in SDL backend

Eleven days earlier (May 14), 0.4.0 was announced, following five months of work on 0.3.0. Changes included:

- Curse of Monkey Island (comi) support (experimental)
- Added support for the EGA versions of Loom, Monkey Island and Indy3
- Improved music support in Indy3 and the floppy versions of Monkey Island
- Many Simon the Sorcerer 1 & 2 improvements and fixes
- Very pre-alpha Beneath a Steel Sky code. Don't expect it to do anything (in fact it is disabled in the 0.4.0 release, but you can get it by compiling ScummVM yourself).
- Even more pre-alpha support for V2 SCUMM games (Maniac Mansion and Zak)
- Preliminary support for early Humongous Entertainment titles (very experimental)
- New debug console and several GUI/Launcher enhancements
- New Save/Load code (easier to expand while retaining compatibility)
- DreamCast port now works with new games added for 0.3.0b
- New official PalmOS port
- Various minor and not so minor SCUMM game fixes
- Large memory leak fixed for The Dig/COMI
- SMUSH code optimised, frame dropping added for slower machines
- Code cleanups

7th Heaven for Linux Users

Opera 7 now available on Linux

Opera Software has released Opera 7 for Linux, offering Linux users a faster and better Internet experience. The new version includes major new features and changes from Opera 6 for Linux as well as a built-in e-mail client not previously available in Opera for Linux.

The first Opera 7 release on Linux is version 7.11, bringing Opera for Linux up to the same level of development as Windows, with Opera 7.11 for Windows being released just last week. Opera's cross-platform development has now advanced so far that releases on Opera's numerous platforms can be only days apart.

Until now, Opera has only offered an integrated e-mail client in the browser to its Windows users. With version 7, Opera introduces a state of the art e-mail client and e-mail organizer, which automatically categorizes and sorts e-mail messages, has an integrated spam filter, and supports POP3, IMAP, and ESMTP.

Opera 7.11 for Linux offers a slew of user-friendly features including the password manager the Wand, the e-mail and news client M2, as well as new features such as FastForward, Rewind, Notes, and Slideshow, which are not only new to Opera, but also completely new to the world of browsing. Popular Opera functions from previous versions including pop-up killer, multiple document interface (MDI), mouse gestures, keyboard shortcuts, Hotclick translation, zooming, integrated search, and many more, are of course included and refined. Now users can even customize and make their own toolbars, mouse gestures and keyboards shortcuts and share with other Opera users.

New features in Opera 7 for Linux

FastForward and Rewind

Opera has added two new buttons in the toolbar to speed up Opera users' Web navigation, letting the browser anticipate where the user will want to go next. Opera first introduced FastForward as a part of the Forward button in Opera 7 for Windows, but in this release has refined this feature and added two completely new buttons to the toolbar. The FastForward and Rewind buttons support all major languages and lets users browse much more efficiently.

Slideshow

The SlideShow button displays photo files on the Web in a slideshow. To see photos full-screen on a black background, simply press F11 to invoke Opera's presentation tool OperaShow.

Notes

Speed up researching with the new Notes features. Jot down a note in conjunction with a Web page, drag the note to an e-mail to send it to others, or simply store your notes for future reference.

M2 mail client

Opera's mail client automatically categorizes and sorts e-mail messages, has an integrated spam filter, and supports POP3, IMAP, and ESMTP.

The Wand password manager

Opera now offers one-click log-in to password protected sites. Log-in fields with available passwords are marked with a slick golden rim, and access provided by simply clicking the Wand icon or the keyboard shortcut CTRL+Enter.

Skinning

Changing the look of a browser has never been easier with Opera's new one-click skin install. Just pick and click once on any of the many skins available at MyOpera community. The skin is downloaded and applied, and users can choose to keep or remove the new skin. As a further enhancement, even changes in the coloring skins can be altered by selecting a color scheme from the View menu.

Spatial Navigation

Spatial Navigation was first introduced in Opera's iTV business unit. With Opera for iTV on their set-top boxes, TV viewers appreciates how simple it is to use the arrows keys on their remote controls to navigate the electronic program guides or between links in Web pages. Now Opera is bringing the same concept to everyone's desktop computer. By combining the SHIFT and arrow keys on the keyboard, users can easily move to links or any other navigational element on a page.

Multiple user style sheets

Opera comes equipped with 12 new style sheets, varying from helpful features for users and developers, to the more zany like a Commodore 64 browser emulator. By choosing style sheets such as "Accessibility layout" or "High contrast B/W" users can in a snap modify pages for an easy read. Developers immediately benefit from features such as viewing structural elements without constantly reverting to its source code.

Small-Screen Rendering

Check out Opera's Web browser breakthrough for mobile phones and PDAs in your desktop browser! See how Web pages would look on a small-screen device by simply pressing Shift+F11 to enable Small-Screen Rendering™.

Refuse pop-ups

Opera can easily be configured to push all pop-up windows to the background, or to not show them at all.

Improved standards support

The standards support in Opera 7 has been improved with added support for DOM level 2 and CSS2; improved ECMAScript and HTML 4.01 support; and complete WML 1.3 and 2.0 support. Opera 7 also handles non-standard pages using DHTML, giving Opera's millions of old and new users a hassle-free Internet experience.

Download Opera

Download Opera 7.11 for Linux from www.opera.com/download

Availability

The browser is available free of charge with a sponsored advertising banner in the top-right corner of the user interface. To remove the advertising banner users must register their version for USD 39. Various discounts apply. Registered users can freely access personal support via e-mail and enjoy six months of free OperaMail Premium.

Sending Us E-Mail?

Due to the amount of e-mail MUUG receives, we've set up an auto-reply to give you immediate 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

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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? Mailto: editor@muug.mb.ca.