ZACK'S KERNEL NEWS

ReiserFS Turmoil

In light of recent events surrounding Hans Reiser (*http://www.linux-maga-zine.com/issue/73/Linux_World_News.pdf*), the question of how to continue ReiserFS development came up on the linux-kernel mailing list. Alexander Lyamin from Hans's Namesys company offered his take on the situation. He said that ReiserFS 3 has pretty much stabilized into bugfix mode, though Suse folks had been adding new features like ACL support. So ReiserFS 3 would go on as before.

In terms of Reiser4, however, Alexander said that he and the other Reiser developers were still addressing the technical issues, and continuing to work, largely with Andrew Morton in his 2.6 tree. Their plan for developing ReiserFS over the next six months is apparently to continue in this vein, at the same time also seeking outside business opportunities to stay funded.

The Linux kernel mailing list comprises the core of Linux development activities. Traffic volumes are immense, often reaching ten thousand messages in a given week, and keeping up to date with the entire scope of development is a virtually impossible task for one person. One of the few brave souls to take on this task is Zack Brown. Our regular monthly column keeps you abreast of the latest discussions and decisions, selected and summarized by Zack. Zack has been publishing a weekly online digest, the Kernel Traffic newsletter for over five years now. Even reading Kernel Traffic alone can be a time consuming task. Linux Magazine now provides you with the quintessence of Linux Kernel activities, straight from the horse's mouth.

Their longer term plan, Alexander says, depends on what happens with Hans. If Hans is released, the developers intend to proceed as before. If he is not released, Alexander's best guess is that the developers will try to appoint a proxy to run Namesys.

Status of sysctl

In keeping with Linus Torvalds' recent assertions that it is never acceptable to break user-space, Albert Cahalan volunteered to maintain the sysctl code if it couldn't be removed. But Linus pointed out that really nothing actually used sysctl (the implication being that it wouldn't actually break anything to get rid of it). Andrew Morton also remarked, "It should always be an objective to remove code if we can feasibly find a way to do so. For us to give up now and to leave all that goop in there forever would be sad."

So unless something comes up, like a big user-space application that really depends on sysctl, it does seem as though that code may eventually be removed from the kernel. In the meantime, we can look forward to a gradual deprecation process, and a search for user apps that depend upon it.

An interesting and ironic result of all this attention being given to sysctl is that the code is actually improving, error messages are becoming enhanced, and so on, as the whole thing gets closer to being removed entirely.

Maintainership Issues

Pierre Ossman has submitted a patch marking himself as the Multimedia Card subsystem maintainer, since Russell King stepped down as maintainer and marked the driver as orphaned. Pierre has also taken the liberty of renaming the driver "multimedia card and secure digital subsystem."

Jiri Slaby has added an entry to the MAINTAINERS file, for the Moxa SmartIO/IndustIO serial card driver, and named himself as the maintainer. He has also added an entry for the Multitech

Multiport Card driver, again naming himself the maintainer.

Jiri's been submitting a number of patches for these drivers, so it makes sense he would maintain them if he wished; in any event, no other kernel hacker has spoken up to claim the role.

Filesystem Benchmarks

Some early tests have indicated that ext4 is faster with disk writes than either ext3 or Reiser4. There was general interest in these results, though the tests had some problems (the tester thought delayed allocation was part of ext4, when that feature has not yet been merged into Andrew Morton's tree).

Various folks also requested that the tests be expanded to include other filesystems; and Theodore Ts'o suggested converting these tests into something that could be automated, for future comparisons between individual filesystem features. But he acknowledged that this might entail an arbitrarily large quantity of work. And the original poster confirmed that the task of automating the tests had seemed too big, which was why the person had only these few smaller tests to satisfy their curiosity.

DeLOCK USB Ethernet

Arnd Bergmann posted a patch to support the DeLOCK USB Ethernet adapter. David Brownell signed off on the patch, and after some discussion of how best to submit it, Arnd and David sent it along to Greg Kroah-Hartman to be included in Greg's regular USB updates. The patch may have some problems, and on some hardware, it's been shown to lose packets. This could be a case of broken hardware – it's too soon to tell. Regardless, the patch seems good enough to percolate up toward the official tree, where hopefully it will get further testing.

One reason a patch can be accepted like this when there is an issue of potential data corruption (or at least slowdown), is because this sort of driver code is very self-contained; even if there is data loss, it would be extremely un-

likely to affect any other part of the kernel. And presumably users trying out such a new driver would understand that they are testing something that may not be quite ready.

Usbmon Interface

Paolo Abeni has written a binary interface into usbmon, via a DebugFS directory entry. Paolo also added an ioctl() call to allow resizing the amount of USB data stored in each DebugFS record. Pavel Machek has asked if this meant we'd be taking out the existing text interface; and Pete Zaitcev explained that the text interface would continue to be supported, at least until a simple command-line tool had been written to interact with the binary interface.

Filesystems Wikis

Valerie Henson has announced a new filesystem Wiki at *http://linuxfs.pbwiki. com* and a new IRC filesystem discussion on the #linuxfs channel at irc.oftc.net. At the time of this writing, a few dozen folks are on that channel.

Valerie has also created a 'huge pages' wiki at *http:// linux-mm.org/HugePages* along with a corresponding IRC discussion on the #huge-

pages channel of the same IRC server. This seems to be a much less populous channel, with only about ten participants. The 'huge pages' Wiki also seems to have been fairly quiet lately, while the filesystem Wiki is apparently updated frequently.

In the same vein as these, Darren Hart has announced a new 'realtime' wiki at *http:// rt.wiki.kernel.org*, maintained by himself and Theodore Ts'o. It's possible that wiki. kernel.org will host any number of wikis. Anyone interested in hosting a kernel-related wiki there should ask the site administrators for help. As Ted points out, maintaining a wiki can be a lot of work, and you should try to arrange to have at least a couple of people to act as editors, maintaining and grooming the site over the long term.

Generic Backlight

Holger Macht has written a patch to support a generic backlight interface in the ACPI driver, controllable via /sys/class/backlight. For backward compatibility's sake, he's also kept support for the control machanisms in /proc. Pavel Machek, for one, likes the code, and said it should be incorporated into the official kernel tree.

Figure 1: linuxfs is a new filesystem wiki for Open Source developers.