The BusLogic FlashPoint SCSI Driver

The BusLogic FlashPoint SCSI Host Adapters are now fully supported on Linux. The upgrade program described below has been officially terminated effective 31 March 1997 since it is no longer needed.

```
        MYLEX INTRODUCES LINUX OPERATING SYSTEM SUPPORT FOR ITS
          BUSLOGIC FLASHPOINT LINE OF SCSI HOST ADAPTERS


    FREMONT, CA, -- October 8, 1996 -- Mylex Corporation has expanded Linux
    operating system support to its BusLogic brand of FlashPoint Ultra SCSI
    host adapters.  All of BusLogic's other SCSI host adapters, including the
    MultiMaster line, currently support the Linux operating system.  Linux
    drivers and information will be available on October 15th at
    http://sourceforge.net/projects/dandelion/.

    "Mylex is committed to supporting the Linux community," says Peter Shambora,
    vice president of marketing for Mylex.  "We have supported Linux driver
    development and provided technical support for our host adapters for several
    years, and are pleased to now make our FlashPoint products available to this
    user base."
```

The Linux Operating System

Linux is a freely-distributed implementation of UNIX for Intel x86, Sun SPARC, SGI MIPS, Motorola 68k, Digital Alpha AXP and Motorola PowerPC machines. It supports a wide range of software, including the X Window System, Emacs, and TCP/IP networking. Further information is available at http://www.linux.org and http://www.ssc.com/.

FlashPoint Host Adapters

The FlashPoint family of Ultra SCSI host adapters, designed for workstation and file server environments, are available in narrow, wide, dual channel, and dual channel wide versions. These adapters feature SeqEngine automation technology, which minimizes SCSI command overhead and reduces the number of interrupts generated to the CPU.

About Mylex

Mylex Corporation (NASDAQ/NM SYMBOL: MYLX), founded in 1983, is a leading producer of RAID technology and network management products. The company produces high performance disk array (RAID) controllers, and complementary computer products for network servers, mass storage systems, workstations and system boards. Through its wide range of RAID controllers and its BusLogic line of Ultra SCSI host adapter products, Mylex provides enabling intelligent I/O technologies that increase network management control, enhance CPU utilization, optimize I/O performance, and ensure data security and availability. Products are sold globally through a network of OEMs, major distributors, VARs, and system integrators. Mylex Corporation is headquartered at 34551 Ardenwood Blvd., Fremont, CA.

Contact:

```
Peter Shambora
Vice President of Marketing
Mylex Corp.
510/796-6100
peters@mylex.com

                      ANNOUNCEMENT
          BusLogic FlashPoint LT/BT-948 Upgrade Program
                    1 February 1996

                 ADDITIONAL ANNOUNCEMENT
          BusLogic FlashPoint LW/BT-958 Upgrade Program
                    14 June 1996

Ever since its introduction last October, the BusLogic FlashPoint LT has
been problematic for members of the Linux community, in that no Linux
drivers have been available for this new Ultra SCSI product.  Despite its
officially being positioned as a desktop workstation product, and not being
particularly well suited for a high performance multitasking operating
system like Linux, the FlashPoint LT has been touted by computer system
vendors as the latest thing, and has been sold even on many of their high
end systems, to the exclusion of the older MultiMaster products.  This has
caused grief for many people who inadvertently purchased a system expecting
that all BusLogic SCSI Host Adapters were supported by Linux, only to
discover that the FlashPoint was not supported and would not be for quite
```

some time, if ever.

After this problem was identified, BusLogic contacted its major OEM customers to make sure the BT-946C/956C MultiMaster cards would still be made available, and that Linux users who mistakenly ordered systems with the FlashPoint would be able to upgrade to the BT-946C. While this helped many purchasers of new systems, it was only a partial solution to the overall problem of FlashPoint support for Linux users. It did nothing to assist the people who initially purchased a FlashPoint for a supported operating system and then later decided to run Linux, or those who had ended up with a FlashPoint LT, believing it was supported, and were unable to return it.

In the middle of December, I asked to meet with BusLogic's senior management to discuss the issues related to Linux and free software support for the FlashPoint. Rumors of varying accuracy had been circulating publicly about BusLogic's attitude toward the Linux community, and I felt it was best that these issues be addressed directly. I sent an email message after 11pm one evening, and the meeting took place the next afternoon. Unfortunately, corporate wheels sometimes grind slowly, especially when a company is being acquired, and so it's taken until now before the details were completely determined and a public statement could be made.

BusLogic is not prepared at this time to release the information necessary for third parties to write drivers for the FlashPoint. The only existing FlashPoint drivers have been written directly by BusLogic Engineering, and there is no FlashPoint documentation sufficiently detailed to allow outside developers to write a driver without substantial assistance. While there are people at BusLogic who would rather not release the details of the FlashPoint architecture at all, that debate has not yet been settled either way. In any event, even if documentation were available today it would take quite a while for a usable driver to be written, especially since I'm not convinced that the effort required would be worthwhile.

However, BusLogic does remain committed to providing a high performance SCSI solution for the Linux community, and does not want to see anyone left unable to run Linux because they have a Flashpoint LT. Therefore, BusLogic has put in place a direct upgrade program to allow any Linux user worldwide to trade in their FlashPoint LT for the new BT-948 MultiMaster PCI Ultra SCSI Host Adapter. The BT-948 is the Ultra SCSI successor to the BT-946C and has all the best features of both the BT-946C and FlashPoint LT, including smart termination and a flash PROM for easy firmware updates, and is of course compatible with the present Linux driver. The price for this upgrade has been set at US $45 plus shipping and handling, and the upgrade program will be administered through BusLogic Technical Support, which can be reached by electronic mail at techsup@buslogic.com, by Voice at +1 408 654-0760, or by FAX at +1 408 492-1542.

As of 14 June 1996, the original BusLogic FlashPoint LT to BT-948 upgrade program has now been extended to encompass the FlashPoint LW Wide Ultra SCSI Host Adapter. Any Linux user worldwide may trade in their FlashPoint LW (BT-950) for a BT-958 MultiMaster PCI Ultra SCSI Host Adapter. The price for this upgrade has been set at US $65 plus shipping and handling.

I was a beta test site for the BT-948/958, and versions 1.2.1 and 1.3.1 of my BusLogic driver already included latent support for the BT-948/958. Additional cosmetic support for the Ultra SCSI MultiMaster cards was added subsequent releases. As a result of this cooperative testing process, several firmware bugs were found and corrected. My heavily loaded Linux test system provided an ideal environment for testing error recovery processes that are much more rarely exercised in production systems, but are crucial to overall system stability. It was especially convenient being able to work directly with their firmware engineer in demonstrating the problems under control of the firmware debugging environment; things sure have come a long way since the last time I worked on firmware for an embedded system. I am presently working on some performance testing and expect to have some data to report in the not too distant future.

BusLogic asked me to send this announcement since a large percentage of the questions regarding support for the FlashPoint have either been sent to me directly via email, or have appeared in the Linux newsgroups in which I participate. To summarize, BusLogic is offering Linux users an upgrade from the unsupported FlashPoint LT (BT-930) to the supported BT-948 for US $45 plus shipping and handling, or from the unsupported FlashPoint LW (BT-950) to the supported BT-958 for $65 plus shipping and handling. Contact BusLogic Technical Support at techsup@buslogic.com or +1 408 654-0760 to take advantage of their offer.

                    Leonard N. Zubkoff
                    lnz@dandelion.com