

## Re: Have you booted from SRC/P RAID?

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**Date:** 08/10/03

Date: Sun, 10 Aug 2003 13:11:30 GMT

<Michael Vilain <vilain@spamcop.net>> wrote in message  
news:news-A73376.00043910082003@news.tdl.com...  
> In article <c9bc36ff.0308092104.591e4506@posting.google.com>,  
> ramon@conexus.net (Ramon F Herrera) wrote:  
> > There is a lot of conflicting information –in this NG  
> > and the manuals– about the [in]ability to boot from the  
> > SRC/P SCSI RAID card. Have you personally been able to  
> > do it?  
> >  
> > From an October 1999 Manual:  
> >  
> > "(The Solaris Operating Environment cannot currently be booted from  
> > SRC/P RAID card.)"  
>  
> To qualify your question: Solaris must boot from a plain UFS structured  
> filesystem. If your RAID hardware can present a logical unit through  
> the controller, you can direct the OBP to attempt to boot from this  
> device. It may require setting up devalias, but it can be done.

You're thinking of a completely different kind of RAID configuration.

The SRC/P is a SCSI-RAID controller card that inserts into a PCI slot in the host system. It's not an external RAID box that connects via a SCSI controller. Rather, it's the SCSI controller itself but with embedded RAID capabilities. As far as Solaris is concerned, when it's simply reading or writing from a SRC/P "disk", it really doesn't matter whether it's a physical disk or a logical disk, they're both accessed the same via the SRC/P controller. In other words, once they've been defined, the logical disks respond to the same set of SCSI commands that physical disks respond to. But that's probably moot because I don't think the OP was asking about booting a logical device, but rather I think he was asking about booting a physical disk that's not assigned to any logical device. In other words, with the RAID feature not active.

To boot a SPARC system from any controller card, even the SRC/P, requires an OBP (aka FCode) driver that specifically supports that card. AFAIK, when the SRC/P product was first released, OBP/FCode boot support for

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the SRC/P wasn't available. I've no idea what the current state of affairs is. The obvious way to determine whether anything has changed since FCS is for the OP to call his Sun support person.

But I strongly suspect that since the OP doesn't have any documentation update in his possession that says it now works, and given that the OP has already tried to just see if it works in spite of what the docs say, that the OP has already answered his own question (but it's not the answer he wanted so he's trying real hard to ignore it).

> *However, if you have to use some sort of software RAID or additional software to access the volume, you're likely to be out of luck. If Solaris has to be up to 'see' the volume, forgetaboutit.*

Clearly that's not the case if you're using, for example, DiskSuite (aka Volume Manager) to create a RAID-1 mirror of your root filesystem. AFAIK, mirrored roots are bootable regardless of whether you're using a hardware or software implementation.

And believe it or not, there are existing x86 PCs with BIOSes (i.e., software) that support booting RAID-0 or RAID-5 logical disks off of a PCI-IDE controller. Of course, you can't (yet) use such a PCI-IDE-RAID controller on a SPARC platform (and Solaris x86 doesn't (yet) support the RAID feature of those controllers), but I expect that will eventually change because of the huge price advantage of those software-based PCI-IDE-RAID cards. In other words, the OBP will be able to see the a "software" logical disk just as soon as someone at Sun decides to release an OBP/FCODE driver that makes it happen.

So, although booting a software RAID-0 or RAID-5 disk is probably not supported today, there's nothing inherent in "software RAID" that prevents it from being supported.

Whether the SRC/P already supports booting is best answered by asking Sun directly rather than speculating about the OP's luck (especially since it's not the type of software RAID you were assuming).