

Re: [RFC] Advanced XIP File System

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What is it?:

- Borrows much from CRAMFS with Linear XIP patches

Apropos borrowing: borrow the compression from Squashfs.

I've heard people say, "XIP is stupid. Why on earth would I use expensive slow flash instead of cheap fast RAM?"

[...] If I

take libfoo.so which is about 2MiB and throw it in JFFS2, it compresses to about 1MiB in flash. If I store libfoo.so as an XIP file (uncompressed) in XIP CRAMFS or AXFS it takes up 2MiB of flash. That is 1MiB extra flash for XIP. But the JFFS2 version would need 2MiB of RAM to store that library when used while the XIP system uses 0MiB. That means XIP uses +1MiB of flash and -2MiB of RAM for libfoo.so. So for any extra flash used for XIP, it can save twice that amount of RAM. The end result can be lower cost systems on the small end. The secret is to choose what to make XIP and what to compress on flash.

If 2 MB of RAM are cheaper [as you say] than 1 MB of Flash, where's the advantage when XIP uses more flash?

Jan Engelhardt

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