

lx brandz in OpenSolaris

Bastian Pochon

Swiss OpenSolaris User Group
Geneva, Uni Dufour
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<http://wikis.sun.com/display/chosug/Installing+a+Linux+Zone>

1x brandz in OpenSolaris

- What is a brand ?
- How does it work ?
- For what shall I use it ?
- Demo

what is a brand ?

- Simple extension to the zone model
- Support zone that don't resemble the global environment:
 - Only support user-space environments
 - For a different kernel, see xVM (xen)
- Available today:
 - x86 only (possible OpenSolaris project: SPARC support)
- Add interposition points in OpenSolaris kernel to intercept syscall's, thread creation, ...

brand components

- A brand is composed of the following items:
 - XML brand configuration file
 - XML brand platform definition file
 - Scripts used to install a branded zone
 - Kernel brand support module (optional)
 - Scripts that can be invoked at zone boot and shutdown (optional)
 - Linker libraries that can be used to help debug branded applications (optional)
 - Userland brand support library (optional)

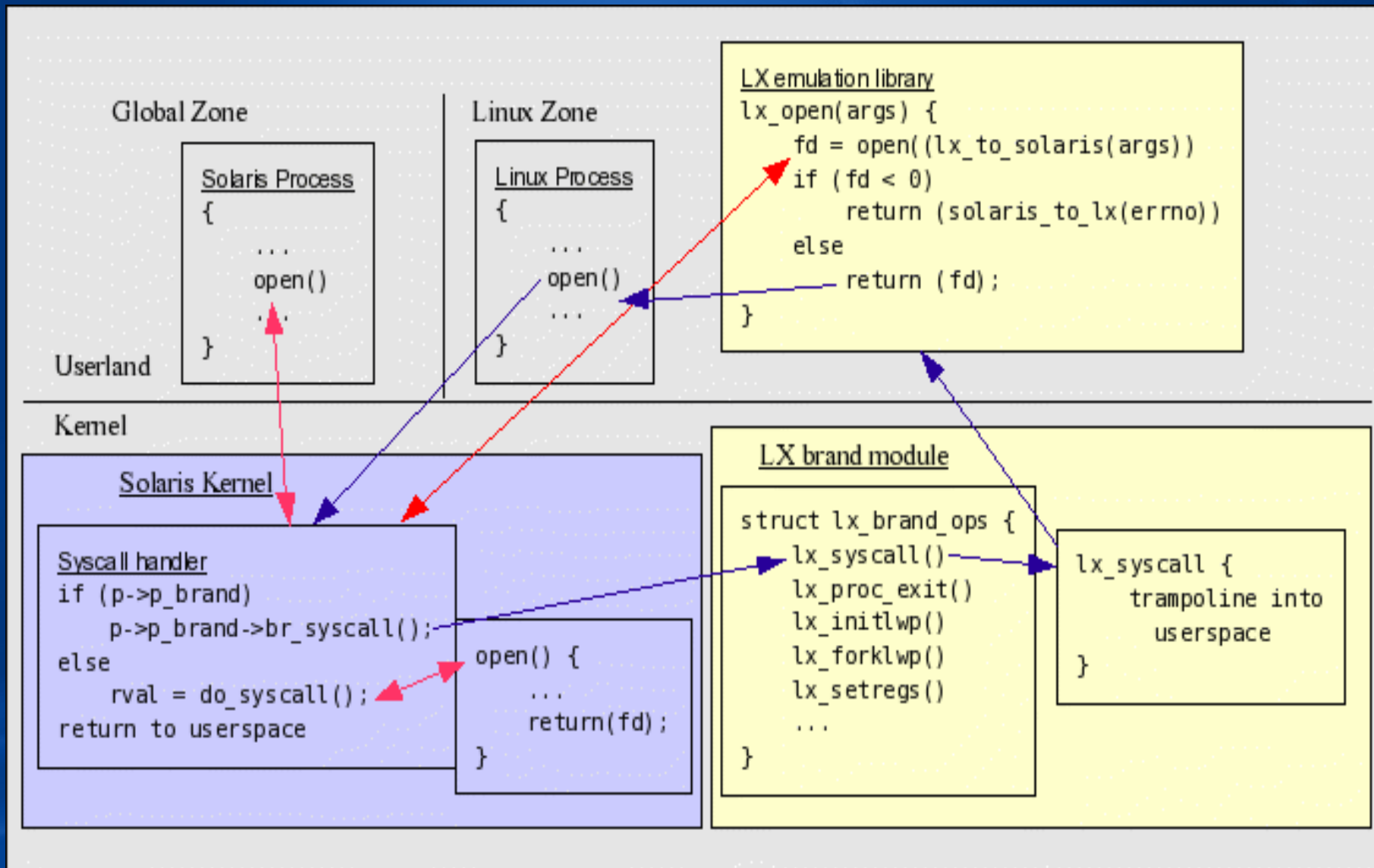
existing brands

- Existing brands in /usr/lib/brandz
 - native
 - ipkg
 - lx
- Other Solaris distributions
 - ShilliX, BeleniX
 - Solaris with GNU utils
 - Solaris 8

lx brand

- Official name: Solaris Container for Linux Applications (SCLA)
- Allows Linux binaries to run on OpenSolaris
- Creates a zone for Linux application execution
 - Zone is populated only with Linux software
 - At boot, it runs the Linux init(1M), configuration scripts, and applications
 - It all runs on same OpenSolaris kernel

tracing a syscall



creation

- 2.4 linux kernel support:
 - zonecfg:myzone> create -B lx
- 2.6 linux kernel support:
 - Download 2.6 kernel support
 - zonecfg:myzone> create -t SUNWlx26
- Need tarball of linux distribution to install
 - CentOS 3 is available from opensolaris.org
 - CentOS 5 will be available from ?
 - Ubuntu 7/8 ?

demo and questions

- Creating a lx brandz
- Networking considerations
- Running linux applications