

OpenSolaris on Xen - Update September 2006

**Joe Bonasera, Todd, Clayton, Dave Edmondson,
Mark Johnson, John Levon, Tim Marsland, et al.
Operating Platforms Group
Sun Microsystems, Inc.**

Agenda

- OpenSolaris on Xen Status
- Porting Issues
- Roadmap
- Areas of Interest

Status September 2006

- Open Solaris Community
 - > www.opensolaris.org/os/community/xen
 - > Downloads and How To instructions
- History
 - > End 2005 Internal Solaris domU on Xen 2.0
 - > Jan 2006 OpenSolaris domU on Xen 3.0
 - > Jul 2006 added dom0, MP, 64 bit, vbd
- August Update
 - > Bug fixing, additional NIC support
 - > DomU disk image for download

Porting Issues – Hypervisor

- MP support
 - > Spurious page faults
- 64 bit support
 - > System calls and rflags
- Preemption and migration

Porting Issues – Drivers

- Inter-domain protocols
 - Network checksum differences
- Grant Table Mapping Operations

Porting Issues - Dom0

- Tools
 - > 32 / 64 bit tools
 - > /proc vs /dev
 - > Use of mlock() with privcmd
- Kernel
 - > Xen console, pts differences
 - > Lack of MSI support
 - > Lack of APIC TPR analogue

Road Map du Jour

- Updates via OpenSolaris community
 - > 3.0.3, HVM, balloon, global pages
 - > Bug fixes, performance tuning
- Putback into OpenSolaris main branch
- Portability fixes to Xen
- Solaris 10 backport

Areas of Interest

- Cross OS/FS boot loading
- Control tools
- NUMA
- IOMMUs
- Multiple Page Size Support
- Writable Page Table Alternatives