

Fedora, Xen and paravirt_ops

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Background

- F8 – 2.6.23 kernel vs. 2.6.21 kernel-xen
- F9 – 2.6.25 vs. maybe 2.6.22?
- Untenable – e.g. SELinux + squashfs



Forward Porting

- linux-2.6.18-xen.hg base
- Constant battle to keep pace
- Investing in a dead-end
- At odds with Fedora's goals



Tough Decisions

- x86_64 DomU not complete
- No Dom0 support
- Feature regressions
- “Who needs Xen?”



Goals

- 32/64 bit Dom0/DomU
- Same kernel image for bare-metal
- HV in separate package



Upstream Issues

- Prelink
- Execshield conflict
- Paravirt FB and kbd
- Console handling



Userland Impact

- Console: `xvc` -> `hvc`
- Network: `xennet` -> `xen_netfront`
- Block: `xenblk` -> `xen_blkfront`
- `/proc/xen`



x86_64 DomU

- Fairly stable, but WIP
- No SMP
- Breaks bare-metal and 32 bit
- Not pv_ops



Dom0

- Boots on Xen and bare-metal
- DMA working
- Can launch DomU
- No backend drivers
- x86_64 conflict

Userland Interfaces

- /proc/xen
- /sys/hypervisor
- /dev/xen/evtchn

Future

- CPU/memory hotplug
- PV drivers for HVM
- Save/restore/migrate
- PCI passthrough



Fedora 10

- Fedora 8 not supported
- Dom0 support not certain
- Pressure from KVM



What Now?

- Xen staging tree
- Abandon the 2.6.18 tree
- Focus on upstream

