

paravirt_ops and upstreaming Xen

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The story so far...

- Universe created...
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- ... and now Xen is in 2.6.23
 - Yay!
- 2.6.24 will just have bug fixes
- 2.6.25...

What's happening now?

- Big development in kernel land:
 - i386 and x86-64 architectures merged: arch/x86
- Initial merge just removed trivial duplicates
- Ongoing effort to unify more complex common functions
- Including...

Unified paravirt-ops

- Paravirt-ops infrastructure is being unified
 - Glauber de Oliveira Costa
- 64-bit hypervisor support substantially shared with 32-bit
- Xen support should follow soon after
 - Most code common
 - 4-level pagetable
 - Dealing with large pages

Dom0

- Seems it might be possible to get a mergable patch
- With unification, 32 and 64 bit dom0 work in parallel
- Should be able to do driver domains at the same time
- Not much done beyond some investigation

**HEY,
XEN
VENDORS!**

YES, YOU

**YES, YOU:
REDHAT
NOVELL
ORACLE**

**YES, YOU:
REDHAT
NOVELL
ORACLE
CITRIX**

Remember...

Remember...



*Every time you forward-port your Xen kernel,
God kills a kitten*

I can has patch?

- I'm constantly hearing:
 - “Great work on paravirt_ops and Xen. It's great it's in the kernel now. But we can't use it because it's only 32-bit and/or domU.”
- But hardly ever:
 - “How can we help?”
- And even rarer:
 - “Here's a patch!”

Forward-porting is a waste of time

- Sure, it gets you something you can ship right now
- But you have to do it over and over and over and over and over and over and over again
- If you put the same effort into fixing paravirt-ops/Xen, it gets done forever

Things you can do

- 64-bit Xen support
- Dom0
- suspend/resume!
- Balloon driver
- Other frontend devices
- Super-page support
- HVM container
- Testing
- What do *you* need to make pvops shippable?

Please...



think of the kittens