



KVM Forum 2011

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Agenda

Year in review

Welcome ARM & Power (again)

Climbing up the stack

Open Virtualization Alliance

Agility vs. Stability



Recent kernel activity

- Nested NPT, nested VMX
- Asynchronous page faults
- Shadow MMU performance improvements
- Hypervisor-mode Powerpc hosts
- Transparent hugepages
- Vhost-net zero-copy

Any activity becomes creative when the doer cares about doing it right or better.

John Updike



Work in progress

- VFIO
- Dynamic NUMA

At the present rate of progress, it is almost impossible to imagine any technical feat that cannot be achieved - if it can be achieved at all – within the next few hundred years.

Arthur C. Clarke



New ports

- A15 ARM
 - Large physical addresses – terabyte class hosts
 - Virtualization extensions – near-native performance
- Hypervisor-mode power
 - Fully exploit hardware capabilities

Software is the soul to the lifeless body of the hardware.



Climbing up the stack

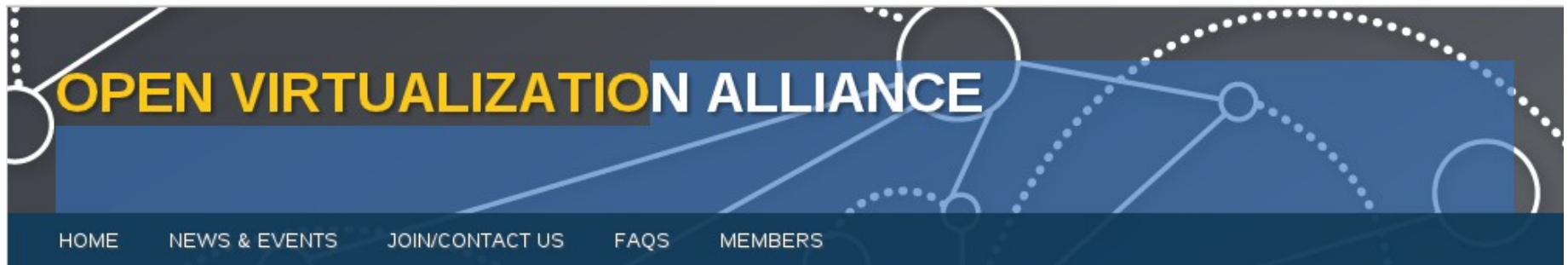
- More emphasis on complete stack

One that would have the fruit must climb the tree.
Thomas Fuller



Open Virtualization Alliance

- ~100 members
- Fill in the marketing gap



One man may hit the mark, another blunder; but heed not these distinctions. Only from the alliance of the one, working with and through the other, are great things born.

Antoine de Saint-Exupery



Agility vs. Stability

- The downsides of stable, conservative development
 - Loss of agility
 - Developer frustrations
 - Fragmentation
- But cannot break users' expectations
 - No crashes
 - No data loss
 - No ABI breakage

The stability of the whole is guaranteed by the instability of its parts.

Karin Meißenburg,



Questions

