



Virtualization in Sun

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Virtualization Options

- Several environments share one kernel
- Hypervisors (one rules all)
- External hardware support

- Just-in-time compilation (patching binary code)
- Paravirtualization (modified guest OS)
- CPU support

Virtualization Options in Sun

- Solaris Containers
- Logical domains
- Hardware domains
- xVM server
- VirtualBox
- Sun VDI

Solaris Containers

- As known as zones
- Isolated environments sharing one kernel
- Basic intro - man zones(5)
- Branded zones – Solaris 8/Solaris 9/Linux

Logical Domains

- As known as LDoms
- Partitioning of CMT chips (Niagara systems) through hypervisor – needs system support (HW and SW)
- Full virtualization of system

Hardware Partitions

- As known as Dynamic System Domains
- Full virtualization driven by hardware
- Only in high-end SPARC Enterprise systems (Exxxk and Mxxxx)
- It is more consolidation than virtualization
- 0% impact on performance

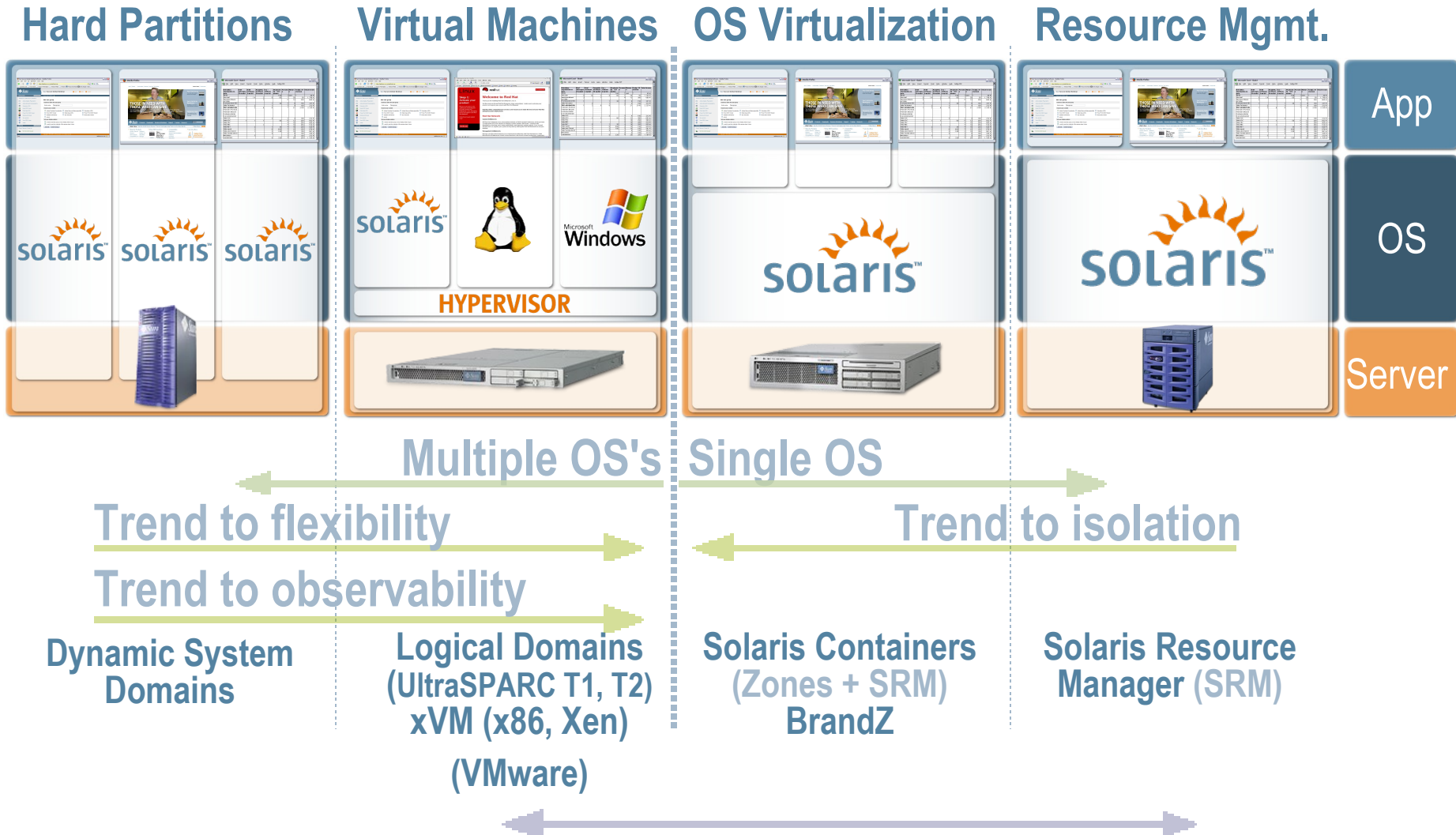
xVM Server

- As known as Xen
- Full system virtualization for x86 systems
or
- Paravirtualization (guest OS must support it)
- For full system virtualization support in CPU needed

VirtualBox

- Full system virtualization for x86 platforms
- Used for Desktop virtualization
- Can be used with HW support (CPU instructions) but it is not needed (Just-in-Time compilation).
- API SDK for creating own consumers (appliances)

Types of Virtualization



Sun VDI

- Virtual Desktop Infrastructure
- For virtual desktop environment across network and operating systems
- Sun Ray systems

Q&A

Questions & answers

URLs

- <http://www.sun.com/solutions/virtualization/>
- <http://www.virtualbox.org/>
- <http://www.opensolaris.org/os/community/xen/>
- <http://www.sun.com/bigadmin/>



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