

Open Source Virtualization

Blaine Bragg – Virtualization Sales Specialist

David BenDavid – Sr. Solutions Architect – Virtualization





Agenda

- Why Desktop Virtualization?
- Red Hat's Virtualization Strategy
- Applying KVM with VDI – Technology Demo
- Q&A



The Pain of Desktop 1.0

■ High Desktop Costs

- PC replacement every 3-5 years
- Desktop sprawl
- Multiple Gold Master images (engineering)
- Desk-side support for users

■ Security

- There is a need for secure and selective delivery of information
- Locked down PC's vs. giving employees access to productivity tools
- Remote access to the work environment

■ Time to Productivity

- The time it takes to get an employee up and running

■ Scale

- Cost to manage increases exponentially in the enterprise
- Need to easily scale to large numbers of desktops linearly
- Does every user require a premium desktop investment?



The Desktop 2.0 Approach (with Red Hat Solid ICE)

- Isolate the hardware from OS, applications and user data
- Desktop images are controlled and run from a server
- Users access their desktops from a thin client or PC with a browser and delivered on demand
- Each desktop is dedicated to a user and provides isolation from other user's desktops
- Bottom Line:
 - Significant reduction in TCO
 - Complete flexibility of your user computing environment
 - Unsurpassed desktop manageability



RED HAT ENTERPRISE VIRTUALIZATION (RHEV) PRODUCT PORTFOLIO

- **RHEV MANAGER FOR SERVERS**

- Robust enterprise grade server management system

- **RHEV MANAGER FOR DESKTOPS**

- Fully integrated VDI management, with SPICE

- **RHEV HYPERVISOR**

- Small footprint, high performance, secure hypervisor

- **RED HAT ENTERPRISE LINUX (RHEL WITH KVM)**

- High performance, secure, integrated hypervisor



KVM Description

- Leverages Intel VT-x and AMD-V silicon extensions
- Full virtualization solution for Linux
- Accepted by the kernel maintainers in record time
- ~12K lines of code (versus 270,000 in Xen)
- Leverages Linux scheduler, memory management, etc.
- Current guests supported = Windows XP, Vista, Linux, Solaris, FreeBSD, etc
- New platforms in process: PPC (IBM), S390 (IBM) and IA64 (Intel)

RED HAT ENTERPRISE VIRTUALIZATION MANAGER FOR DESKTOPS

**Centralize management, security and policy
enforcement of all desktops**

No compromise on user experience

Multiple monitors

HD quality video

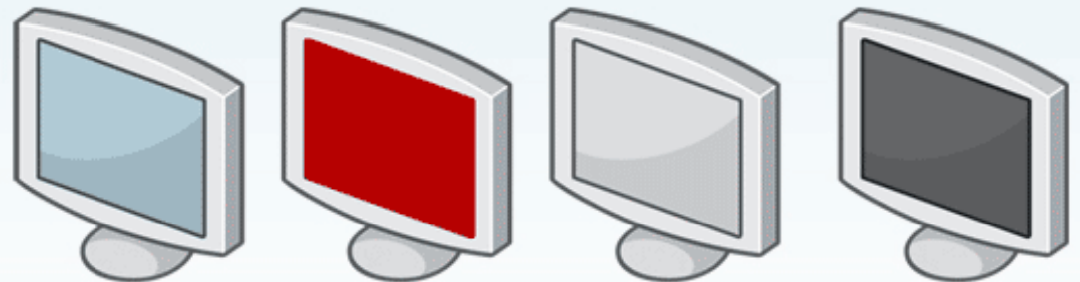
Bi-directional audio/video

Flash and other graphics

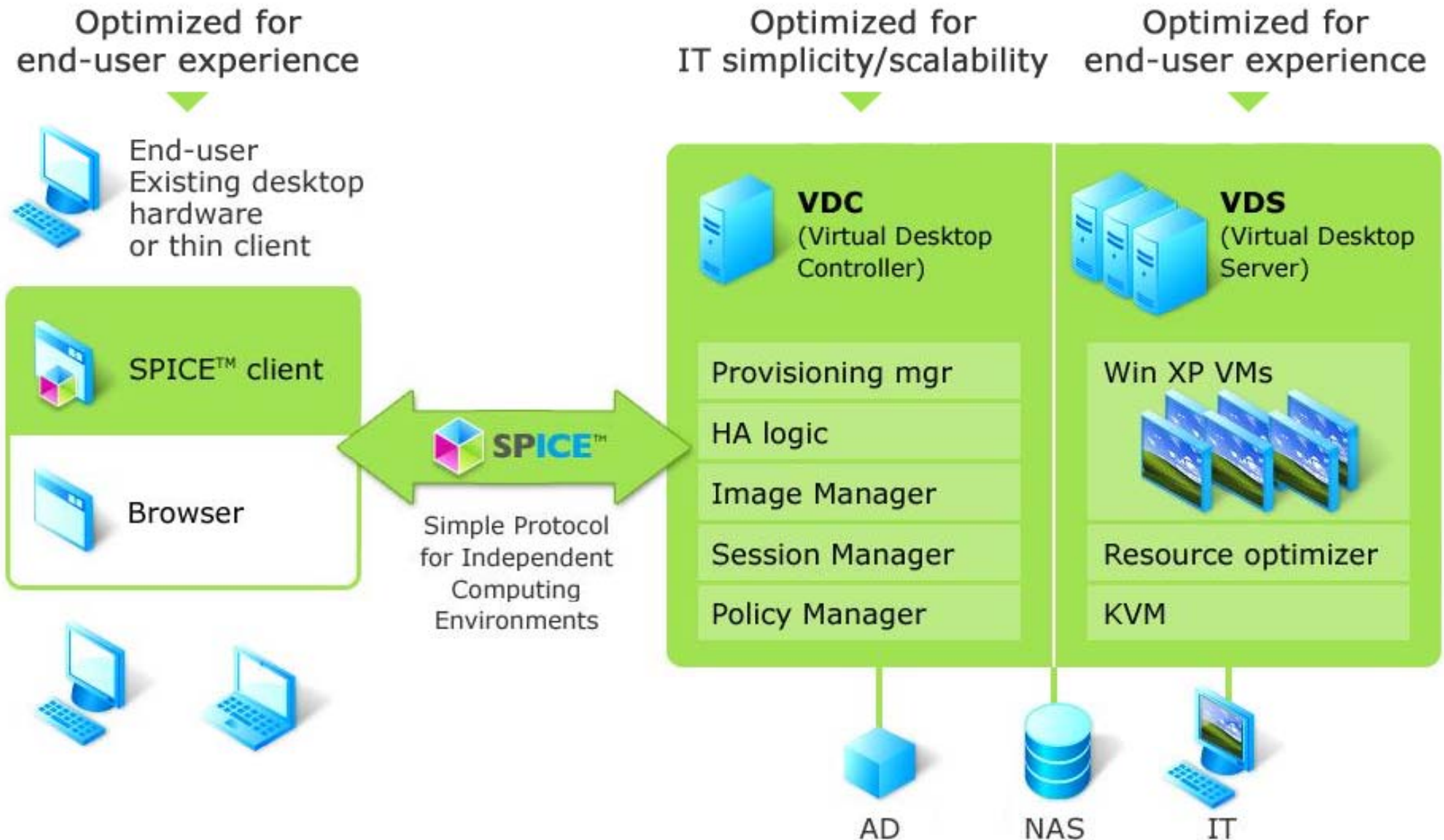
**3-5x improvement in
price-performance ratio**

Higher density

Storage savings



VDI Architecture Overview





Technology Demo:

OPEN SOURCE VIRTUALIZATION IN ACTION