



Desktop Virtualization Days Virginia 2007

Craig Bender

Sr. Desktop Virtualization Architect

Sun Microsystems



Agenda

Day One

7:30 AM To 8:00 AM Registration

8:00 AM To 8:30 AM Welcome

8:30 AM To 9:00 AM Introductions and Agenda

9:00 AM To 12:00 PM Sun Ray Software 4 Update 2

12:00 PM To 1:00 PM Lunch

1:00 PM To 3:00 PM Trusted Extensions and Sun Ray

3:00 PM To 5:00 PM Ask the experts

5:00 PM To 7:00 PM Meet the Speakers

Day Two

7:30 AM To 8:30 AM Check In

8:30 AM To 10:00 AM SGD Overview and demos

10:00 AM To 12:00 PM New Kiosk Deep Dive

12:00 PM To 1:00 PM Lunch

1:00 PM To 3:00 PM VM Technologies

3:00 PM To 5:00 PM Roadmap and Demos

Your Hosts

- Matt Hatley: Sun Fed
- Peter Percival: Sun Edu
- Linda Lam: Sun Fed Marketing
- Brad Lackey: Sun Desktop Product Lead
- Art Peck: Sun Desktop Practice
- Andy Hall: Sun Virtual Desktop Marketing
- Special Thanks: Miss Artie (Reception)
- Special Thanks: Anton Mahowald (Systems)
- Craig Bender: Sun Virtual Desktop Engineering

Logistics and Decorum

- Restrooms: Out to the lobby, left, left, on the right
- Parking: We Validate!
- Beverages: Behind you
- Cell Phones: Off Please
- Questions: Please!
- Beer: Absolutely, tonight!
- Pizza: That too
- SWAG: You bet. Unless your cell phone rings.
- Big Thanks to Linda!!!
- Snoring: Not allowed!!!

Don't be this guy!



Or Peter and Matt will sing show tunes to you

And more importantly...



You won't be entered to win one of these!



Why is Sun Ray Technology Important?

Why are you here?

**Why should you be interested in
Virtual Desktop Computing?**

Austin American-Statesman

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Laptop with patients' personal information stolen Seton computer contains information on 7,800 uninsured patients.

Advertisement

By Andrea Ball
AMERICAN-STATESMAN STAFF

Tuesday, February 20, 2007

The theft of a laptop computer from an Austin office last week has led the Seton hospital system to warn about 7,800 uninsured patients to watch for signs of identity theft.

The Dell computer contained personal information — names, birthdates and Social Security numbers — for uninsured patients who have gone to Seton-owned emergency rooms, outpatient services and area health clinics since July 1, 2005.





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Missing Veterans Affairs hard drive sparks identity theft fears

By James W. Crawley / Media General News Service

Feb 2, 2007

WASHINGTON (Feb. 2, 2007) -- The Department of Veterans Affairs (VA) today announced that an employee reported a government-owned, portable hard drive used by the employee at a Department facility in Birmingham, Ala. ? and potentially containing personal information about some veterans ? is missing and may have been stolen.

"I am concerned about this report," said Jim Nicholson, Secretary of Veterans Affairs. "VA's Office of Inspector General and the FBI are conducting a thorough investigation into this incident. VA's Office of Information and Technology is conducting a separate review. We intend to get to the bottom of this, and we will take aggressive steps to protect and assist anyone whose information may have been involved."



ConsumerWatch >

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© Feb 14, 2007 8:50 pm US/Pacific

Laptop Stolen With 22,000 Kaiser Patients' Data



Sherry Hu
Reporting

(CBS 5) OAKLAND In yet another instance of laptop theft potentially endangering personal data, Kaiser Permanente is in the process of notifying as many as 22,000 patients of a possible breach of their private medical information.

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saljournal.com
YOUR SALINA JOURNAL ONLINE

Patients' personal information threatened with computer theft

Some patients of SRHC could be at risk for identity theft

By **DAVID CLOUSTON**
Salina Journal

A laptop computer containing the names, social security numbers

and medical history of up to 1,100 patients is missing, putting them at risk for identity theft, and Salina Regional Health Center officials are offering a \$2,000 reward for the laptop's return.

The hospital's computer was stolen along with a docking station, printer, overhead projector and other computer equipment, plus a small amount of prescription drugs, from the office of Veridian Behavioral Health, 501 S. Santa Fe., Suite 300, earlier this month.

Last week, those patients whose privacy was potentially compromised received letters from the hospital, notifying them to let their financial institutions know about the threat and to be on guard for false charges, Beth Vinson, the hospital's marketing supervisor, said Sunday.

Vinson wouldn't identify the laptop's authorized user for concern that publicly identifying him could further compromise patient privacy.

The reason the patient information was stored on the machine was because the user travels to different offices to treat patients.

"This person has different offices to go to, and this way when he traveled to different offices, he'd have that information available to him," Vinson said.

"JUST USE IT"

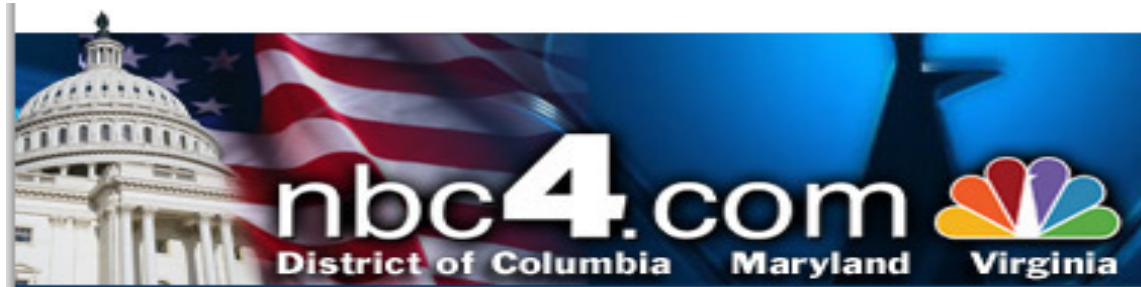
Wireless Plan

- Unlimited incoming calls*
- Unlimited outgoing calls*
- Unlimited long distance*
- Unlimited nights and weekends*
- 1400 Anytime-Anywhere**

\$49⁹⁹ mo.



*In the WestLink Network. **When you travel. Some restrictions apply, see store for details, this promotion is subject to availability and may end without notice.



Laptop Stolen From Hospital Contains Sensitive Information

Hospital Takes Preventative Steps Against Future Thefts

POSTED: 11:13 am EST February 8, 2007

UPDATED: 11:19 am EST February 8, 2007

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LEONARDTOWN, Md. – Hospital administrators at St. Mary's Hospital in Leonardtown, Md., are concerned about the recent theft of a laptop that contained identifying information.

Administrators said the laptop contained names, Social Security numbers and birthdates for many of the hospital's patients.



Common Elements

- All were reported within a 2 week period
 - > Feb 8, 2007 – Feb 22, 2007
- All involved private records
- All involved theft of data on a laptop
- All generated bad publicity

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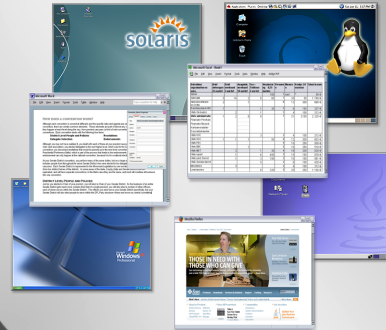
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- **IT IS NOT UNCOMMON**

Sun Virtual Desktop Computing Offering

Sun™ Secure Global Desktop Software

Data Center



Sun Ray™ Software

Enhance existing devices by providing secure access to applications of any type

Deploy virtual display clients for end-users that don't require a PC



Sun Ray Clients



Virtual Desktop Computing



Applications



Virtualized Display Delivery



Client Devices

Virtualized Desktop Solutions



One operating system is used to service multiple users. Each user has a separate session but shares the operating system and applications with others.



Multiple Users Per Server



Each user has a dedicated blade system and operating system. Applications are installed individually for each user and the blades are managed individually.



Each User With Dedicated Blade



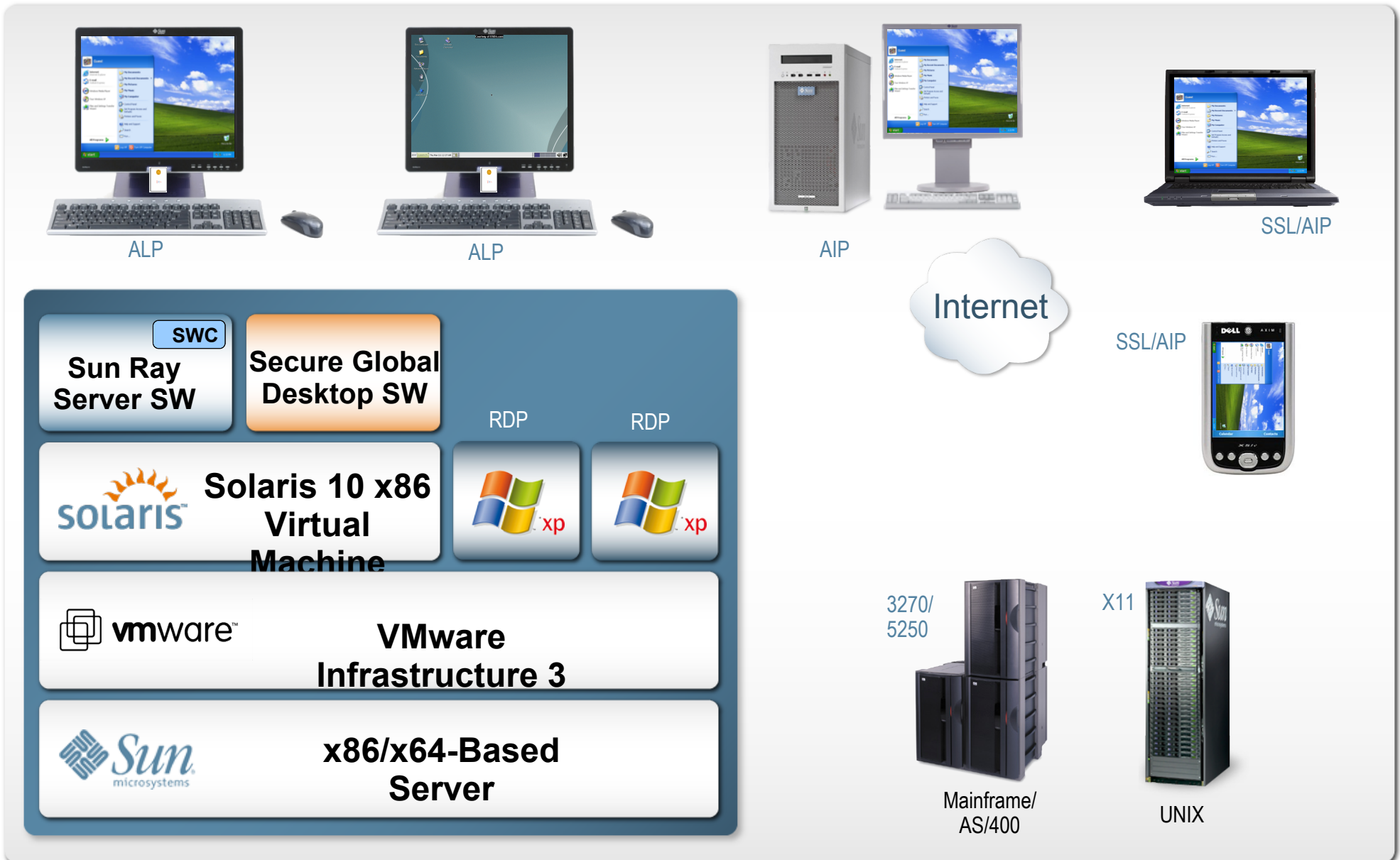
Like the blade solution, but each user's system is a virtual machine instead of a physical one. OS and applications are installed and managed individually.



Each User With Dedicated VM (VDI)



Sun Virtual Desktop Solution



Virtual Desktop Computing Compared

Traditional Desktop Computing

- Applications installed on every device
- Data resides on vulnerable laptop or PC
- Runs only one application type (Windows)
- Device choice constrained by application set
- Use only “your” device
- Work in your work location
- Who knows what the user does

Virtual Desktop Computing

- Applications run on data center servers
- Data resides in secure data center environment
- Runs any application type (Windows, Linux, Solaris™ OS)
- Choose the right device regardless of application set
- Use anyone's device
- Work anywhere
- Know what the user does

Reducing IT Operational Costs



- **Simplify** application and OS upgrades
- **Reduce Upgrade Fatigue** and the never ending cycle of client upgrades
- **Gain efficiency by** delivering applications only when needed


Preparation For Disasters Like Avian Flu



[GCN Home](#) > 04/24/06 issue

Homeland Security Department secretary Michael Chertoff said in April at a conference on medical emergency preparedness held by U.S. News and World Report that “a central part of planning is making sure agencies have reviewed their COOP plans to identify essential employees, those who can work at home, and those who do not need to work during the emergency.”

What Sun can do for you!

- 
- Streamline **desktop management**
 - Increase security and **protect sensitive data**
 - Help reduce cost by **eliminating application re-writes** for remote access
 - Provide a **high quality desktop environment** on a **wide variety of client devices**
 - Allow users to **work from nearly anywhere**
 - Deploy a workable **business continuity solution**
 - React **quickly** and scale **reliably**

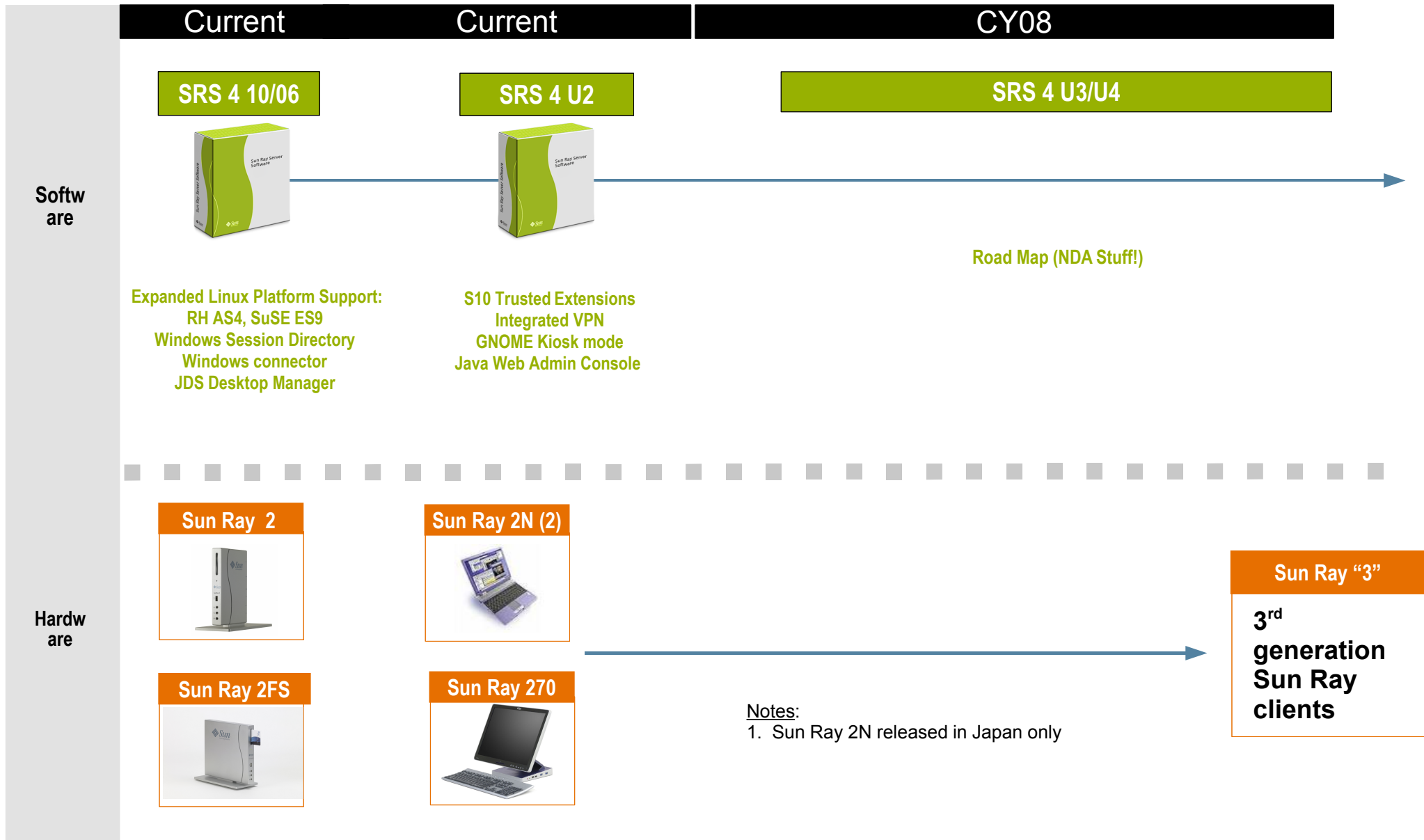


Sun Ray capability trends

Where It Is

- Microsoft Windows access
 - > RDP: Fully licensed & supported implementation
 - > Full screen or in a window
 - > Security: 2 factor authentication
 - > Virtualization: VMware partnership, VDA Kit
- LAN **or** WAN deployment
 - > Protocol optimization, adaptive to available bandwidth
 - > Hot desk around the world
- Multi-platform: Solaris or Linux
- Low Cost, low power, low maintenance
 - > \$249 list, 4 watts power consumption (Sun Ray 2)
 - > Outlasts a typical PC by years

Sun Ray Technology Roadmap



Sun Ray Software 4 Update 2

Available Today!!!

- Simplify Deployment
 - > Integrated VPN – Sun Ray devices will have a built-in VPN client for remote deployments
 - > Client configuration - GUI to set network parameters: IP address, server group, MTU size and more
 - > Kiosk Mode – Enables kiosk mode for GNOME on both Linux and Solaris or for full screen-only access to Windows.
- Security enhancements
 - > Support for Solaris 10 Trusted Extensions

Sun Ray Software 4 Update 2

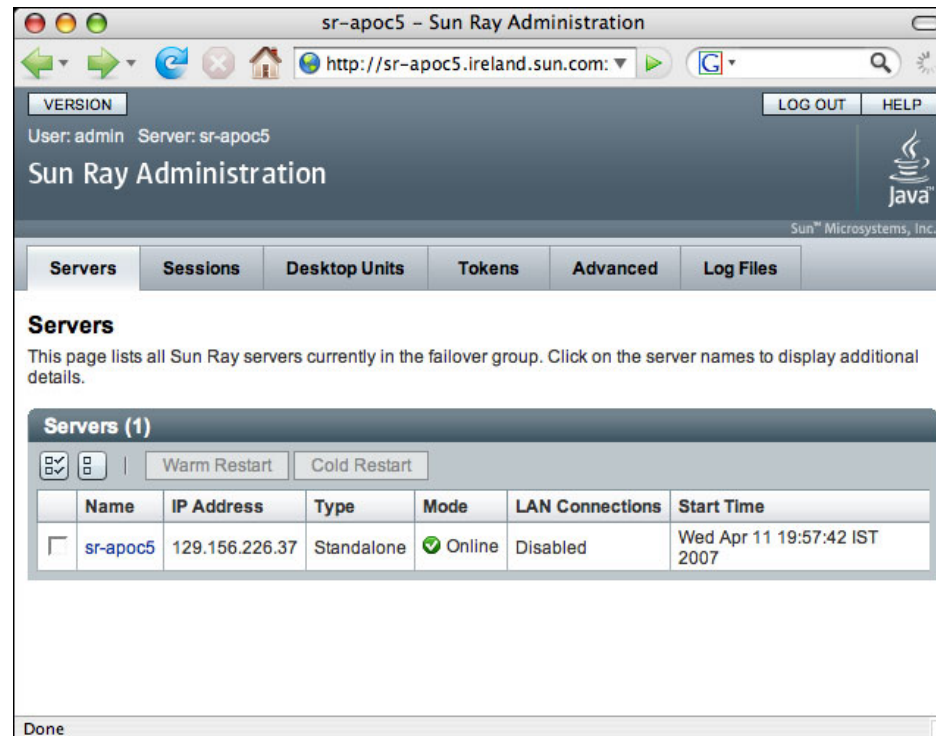
Available Today!!!

- Peripheral support
 - > Support for external USB smart card readers
 - Add 2nd smart card reader for 2 person authentication
 - > Microsoft interoperability
 - Sun Ray Connector for Windows OS 2.0
 - Windows Vista support (RDP 5.2 only)
 - Solaris Trusted Extensions support
 - Improved performance (50% Winbench improvement)

Sun Ray Software 4 Update 2

Available Today!!!

- Accessibility
 - Easy to use, web based administrative interface
 - Section 508 compliant



The screenshot shows a web browser window titled "sr-apoc5 - Sun Ray Administration" with the URL "http://sr-apoc5.ireland.sun.com:". The interface includes a navigation menu with tabs for Servers, Sessions, Desktop Units, Tokens, Advanced, and Log Files. The "Servers" tab is active, displaying a table of server information.

Servers (1)

Warm Restart Cold Restart

	Name	IP Address	Type	Mode	LAN Connections	Start Time
<input type="checkbox"/>	sr-apoc5	129.156.226.37	Standalone	Online	Disabled	Wed Apr 11 19:57:42 IST 2007

Done

Sun Ray Virtual Display Client

- Key features
 - > Stateless ultra-thin client
 - > Centralized desktop administration
 - > No local data
 - > No local operating system
 - > No cooling fans
 - > No moving parts
 - > Low power (4 watts)
 - > MTBF >200,000 hours (almost 23 years)
 - > Replacement time < 5 min (2-3 cables)

Sun Ray Client Portfolio



Sun Ray™ 2

Low cost, low power, small footprint

List Price \$249 (US)



Sun Ray™ 2FS

Ultra-secure, fiber, dual-head

List Price \$499 (US)



Sun Ray™ 270

All-in-one client with 17" screen

List Price \$869 (US)

Resources

- Tech Information
 - Tech Alias (Join/Query first!)
 - sunray-users@filibeto.org
 - tarantella-users@filibeto.org
 - Blogs
 - <http://blogs.sun.com/ThinkThin>
 - <http://blogs.sun.com/ThinGuy>
 - <http://blogs.sun.com/fatbloke>
 - White Papers
 - <http://www.sun.com/sunray/whitepapers.xml>
 -



Secure Global Desktop

Enhance Existing Devices



Use Sun Secure Global Desktop Software to deliver desktop applications securely



Windows XP Desktop
(delivered via local disk)

Some applications also
delivered via local disk



Firefox on
Solaris OS



3270
Application



Explorer on
Longhorn

Use Sun Secure Global Desktop Software to publish any application on your desktop

Linux Application on Windows Desktop

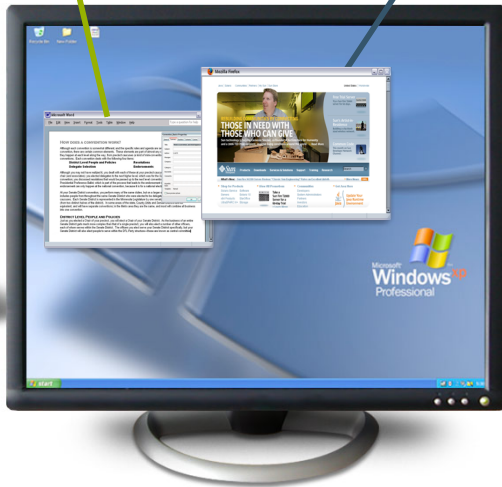
Solaris Application on Mac OS X Desktop

Linux Application on Solaris Desktop

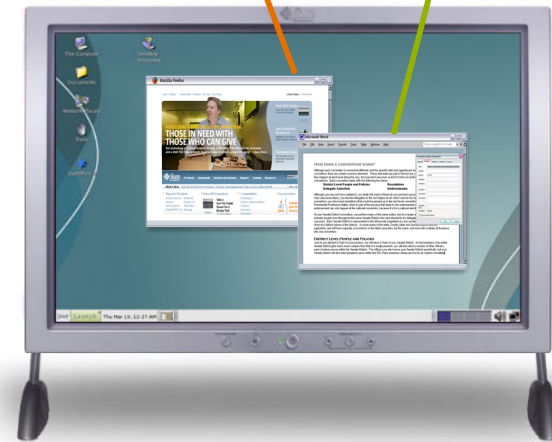
Solaris Application on Windows Desktop

Windows Application on Mac OS X Desktop

Windows Application on Solaris Desktop



Mac OS X



Seamless User Experience

- Less complexity for users
- Better control for administrators
- Remote windows integrate seamlessly with local windows
 - > Open and save local documents with remote applications
 - > Print to local printers
 - > Display Windows, Solaris OS, Linux and other UNIX, Mainframe, AS/400 all from a single desktop PC



Network delivered applications run seamlessly on desktop PC

Key Benefits

- Data as well as application access to the data is centralized which **secures enterprise assets** and controls access to those assets
- Applications and user environments are uncoupled from the display device enabling **convenient end-user mobility** from any location and from a broad array of devices
- Operational efficiency is increased, PC lifetimes can be extended, low-cost/low-powered devices and choice is preserved all resulting in **lower costs**

End User Mobility



- Session mobility that is tied to user identity, not to user device
- Access from any location
- Access from LAN or WAN
- Access from a personal device or from a public device
- Convenient access inside or outside the firewall

Security



- Security is core to the system architecture and design
- Assets are centralized in a safe location and access is controlled and tracked
- Storage of local data is tightly managed and controlled
- Highly resistant to viruses, spyware, and worms
- Smart card (with Java Card technology) authentication



Craig Bender
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