

Oracle's Virtual Desktop Solution for Healthcare

Facilitating Caregiver Mobility While Safeguarding Patient Data

Provider organizations are dynamic environments in which staff and clinicians need to quickly access hospital information systems (HIS) and patient records (including treatment guidelines and imaging archives) from a variety of locations. Complicating matters, this data is sensitive and private, so the system and access to the information that resides there must be secure. Although hospital employees have historically used desktops to access HIS and patient-record applications, such an approach presents a number of challenges for the specialized healthcare environment. These include

- Providing secure, speedy access to patient data
- Ensuring session mobility between inpatient and ambulatory care delivery locations, onsite and offsite doctors' offices, and administration areas
- Changing the type of data and the security aspects based not only on the user's access role but also their location in the health system
- Facilitating secure availability of patient data on mobile devices
- Dealing with rising administration costs
- Providing access to legacy applications from diverse platforms
- Meeting compliance and regulatory requirements

Oracle's virtual desktop solution for healthcare addresses these challenges by providing caregivers with secure, mobile access to HIS and patient records—wherever and whenever they need them. It does this by virtualizing complete desktop environments and installing them in the datacenter where they can be secured, managed, and maintained. As a result, caregivers spend significantly less time accessing critical data, and the IT department ends up managing a few servers rather than hundreds or even thousands of desktop devices.

Hardware and Software
Engineered to Work Together

FACT: Oracle's Sun Ray 3 Series Client—the ecofriendly choice—uses only 6 watts of electricity and reduces energy requirements for healthcare organizations.

SOLUTION COMPONENTS

Oracle's ultrasecure, highly available virtual desktop solution for healthcare contains the following Oracle components:

- **Sun Ray Clients.** Containing no resident operating system (OS) or applications, Sun Ray Clients are immune to viruses and service attacks. And because Sun Ray Clients don't contain any means of persistent data storage, they make unattractive targets for theft; all data and applications displayed onscreen disappear as soon as the client is turned off or the access card is removed.
- **Oracle Secure Global Desktop.** Providing secure, mobile access to virtualized desktops and applications from a variety of clients over any network, Oracle Secure Global Desktop is a reliable, cost-effective solution for even the most-complex environments. Healthcare organizations can rely on it to deliver centralized management, flexible application access, and industrial-strength security and encryption.
- **Oracle Virtual Desktop Infrastructure.** Oracle Virtual Desktop Infrastructure creates a new dimension of choice to simplify management, increase flexibility, and maximize IT utilization for desktop deployments. Its open architecture allows IT to design a virtual desktop environment using a broad range of client devices, virtualization hosts, and virtual desktop operating systems.

A Simple Solution for a Fast-Paced Environment

With more and more healthcare workers requiring remote access to information and applications to better care for their patients, reduce medical errors, and provide services more cheaply and efficiently, Web delivery of such data has emerged as one option. However, rewriting applications for delivery over the Web is not only costly and time consuming, but it can also strip away familiar user interfaces, making once-easy applications difficult to use. In fast-paced medical environments, this simply won't do.

Oracle's virtual desktop solution for healthcare addresses these critical challenges. Using familiar interfaces for applications and desktops, Oracle's virtual desktop solution for healthcare eliminates the need to retrain users and reduces logon times from minutes to seconds—essential in environments where time is a critical component of care. With Oracle's virtual desktop solution for healthcare, IT staff can provision desktops and applications to end users who have been assigned access rights based on individual or group criteria. Access to these desktops is then provided by Oracle Virtual Desktop Infrastructure to users of both Oracle's Sun Ray Client devices and traditional PCs.

As a stateless client that needs no configuring, Sun Ray Clients serve as an ideal choice for healthcare. Sun Ray Clients consume significantly less energy than traditional PCs and have no fan to attract and spread airborne contaminants for patients and care providers to breathe. Because Sun Ray Clients are clean and quiet, many healthcare organizations are finding them to be the only devices acceptable to place in the room near the patient. Integrated smart card readers help ensure quick access to desktop sessions from any Sun Ray Client. The solution also allows secure, browser-based access to the same desktop session from a wide range of other client devices, including Windows desktops, Apple Macintosh computers, and other thin clients. Oracle's virtual desktop solution for healthcare also provides access to legacy UNIX, Linux, Windows, AS/400, and mainframe applications with the use of Oracle Secure Global Desktop.

Highly Available, Highly Accountable

Increasingly strict privacy and information-access guidelines are making it essential for healthcare providers to track individual network usage and activity. The extensive auditing and reporting features included in Oracle's virtual desktop solution for healthcare make this possible. As a result, compliance tasks are streamlined, and the risk of noncompliance is reduced. With the Oracle solution in place, IT staff can set privileges and access policies and maintain thorough records for each connection. In addition, all components of Oracle's virtual desktop solution for healthcare simplify tracking and reporting through complete logging, session-monitoring, and session control features. The result: full accountability for all users.

Ironclad security is essential to keeping patient data private and safe. With highly secure Sun Ray Clients and Oracle Virtual Desktop Infrastructure, Sun Ray Software, or Oracle Secure Global Desktop installed on servers running Oracle Solaris, Oracle's

FACT: Wolf Medical Systems, a pioneer in leveraging technology for clinical and operational best practices, recently installed its 1,000th Sun Ray Client.

virtual desktop solution for healthcare provides security both on campus and in remote settings, capitalizing on the components' inherent security, scalability, and reliability. In addition, the Oracle solution's three-tiered architecture provides an extra layer of protection against malicious attacks to the datacenter. The solution employs leading dual-factor authentication mechanisms (such as RSA SecurID) and integrates with LDAP, directory services, Microsoft Windows Domains, and UNIX passwords.

Oracle's virtual desktop solution for healthcare provides always-on mobile and point-of-care access for physicians, nurses, and healthcare professionals, reducing the time it takes to access critical data. By taking advantage of the "resumability" feature, a user can halt a desktop or application session on one device and resume it on another, with no interruption to the session or loss of data. The user simply inserts their smart card and logs on to their virtual desktop at the beginning of their shift, starts any number of applications, and then as they move between workstations with their card, they are seamlessly reconnected to their session hosted in the datacenter with all of their running applications instantly available to them. This means they don't have to manually logout and log back in, or restart applications throughout their shift, saving valuable time. Desktop session access can be changed by view, device connectivity, and printing characteristics to be more appropriate to the user's location as they move about. Mobile application access also reduces manual data entry and associated human error. Furthermore, the ergonomics of carrying a smart card instead of a mobile computing unit can reduce caregiver injuries and fatigue.

Benefits

By centralizing application administration, Oracle's virtual desktop solution for healthcare reduces the overhead associated with PC-based upgrades and refresh cycles, accelerating new-staff training and eliminating the need to retrain existing employees. And because desktops and applications are Web-based and accessible from a variety of devices, multiple workstations are no longer needed. As a result, capital expenses are reduced, and maintenance and support costs are lowered. Using only 4 to 6 watts of electricity, Sun Ray Clients also reduce electricity requirements.

With Oracle's virtual desktop solution for healthcare, organizations can


- Increase employee efficiency through instant, flexible access to desktops and applications—from any device or platform
- Consolidate network infrastructure and create a centrally managed computing environment
- Provide secure delivery of sensitive data over any network
- Improve and maintain regulatory compliance
- Reduce deployment and maintenance costs

CONTACT US

For more information, please visit oracle.com/us/technologies/virtualization/061984.html or call +1.800.ORACLE1 to speak to an Oracle representative.

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Visit oracle.com/corporate/contact/global.html to find the phone number for your local Oracle office.



"We consider the Sun Ray Client to be a key element in delivering on our brand promise of Simply Powerful. As a practicing physician and user of Sun Ray Clients in my clinic, I can attest to its security and simplicity, and that it saves me time when dealing with the typically heavy patient load faced by physicians today. At Wolf Medical, we're very happy to be able to provide this technology as part of our EMR [electronic medical record] solution and excited to have achieved such a high level of adoption by our customers."

Dr. Brendan Byrne
President and CEO
Wolf Medical



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