

Sun Expert Exchange

“Sun Does Windows: Q&A on Sun/Microsoft Interoperability”

Tuesday, July 17, 2007

(Q): My Ultra 20 workstation can not connect to the network under Windows 2003 Server, but it works perfect under Solaris 10. I need the network card to connect to my DSL modem to the WWW, why does the NIC come with the Ultra 20 workstation but it doesn't work under the Windows 2003 server? How to solve this problem? Thanks.

Matt Wolf (A): The Sun Ultra 20 is not supported with Windows 2003 (only XP), however the follow on Sun Ultra 20 M2 is supported with Windows 2003, and Windows XP (Vista is certified and full support will be announced soon). Please see below matrix that shows which Ultra 20 option cards are qualified with Windows (also contains drivers to do so).

<http://www.sun.com/desktop/workstation/ultra20/optioncards.jsp>

(Q): Can I access remotely for Windows server to Solaris server its possible? Can I see Windows server remotely connected to Solaris server desktop?

Chris Kawalek (A): Yes, there are various options for accessing remote Windows servers from Solaris.

(Q): Any updates on VMware running as a Host on Solaris?

Mark Thacker (A): Solaris does run as a Guest OS in VMware today. Sun is working on XEN as a virtualized host provider to run in Solaris as well and this work can be tracked through the www.opensolaris.org Web site right now.

(Q): I had problems with Sun OS 10 and the service manager, how can I solve this?

Mark Thacker (A): The Solaris Service Manager is an integral part of Solaris 10 and fully supported. If you have a support contract, you certainly can log a support call if you like. Alternatively, please review the Sun Documentation Center at <http://docs.sun.com/> and click on the Solaris section for full docs, including developer docs on the Service Manager.

(Q): Does Sun Studio11 support all operating systems?

Marina Fisher (A): Here are the details: <http://developers.sun.com/sunstudio/features/sysreq.jsp>

(Q): Solaris10 is installed on my x386 machine, but my problem is that the GUI is not coming. What is the error? My system configuration is 512 RAM, 80GB m Pentium Due core.

Mark Thacker (A): There could be a variety of issues. I encourage you to check out the Hardware Compatibility List (HCL) on <http://www.sun.com/bigadmin/hcl/>. BigAdmin is also a great site to ask questions of others who have installed Solaris. Also, check out the How-To guide for installing Solaris on x86 systems at: <http://www.sun.com/software/solaris/howtoguides/installationhowto.jsp>

(Q): Is there any way ISVs and software services companies can join the Sun/Microsoft interoperability program to get more programs and applications released?

Marina Fisher (A): We have a great ISV program that helps migrating ISV applications to Solaris platform, please visit <http://partneradvantage.sun.com/>

(Q): Are there easy to use step-by-step tutorials for implementing WSIT?

Arun Gupta (A): There is no need to implement WSIT as Sun has already done the work for you :) The complete detailed tutorial to use WSIT is available at:
<https://wsit-docs.dev.java.net/releases/m5/index.html>.

A list of detailed screencasts showing how interoperable Web services can be developed/deployed/invoked is at: <http://wsit.dev.java.net/screencasts.html>.

Some more related entries are at:

http://blogs.sun.com/arungupta/entry/glassfish_and_vista_interoperable_out

http://blogs.sun.com/arungupta/entry/glassfish_v2_beta3_and_vista

An overview of Project Tango is available at: <http://wsit.dev.java.net/docs/tango-overview.pdf>

(Q): With this interoperability can I run my Visual C# applications on Solaris?

Gerald Beuchelt (A): You can take a look at project mono which is an open source project aiming at recreating the .NET runtime. Note that there are still some intellectual property issues with this, though.

(Q): Will Sun support Java development in MS Studio?

Marina Fisher (A): MS Studio is not a Sun product so it's out of our hands, however Sun offers a great Java development environment NetBeans that you can use to achieve interop with .NET using WS among others.

(Q): With Xen coming in the new version will that let Windows run on SPARC hardware?

Mark Thacker (A): Xen, and even VMware, do not provide chip emulation. Other open source tools such as QEMU provide such chip emulation. As such, Xen won't make an x86-only OS such as Windows run on a SPARC chip.

(Q): Are there any plans to include Samba with winbind, ADS and Kerberos support compiled?

Mark Thacker (A): Yes. This is available through OpenSolaris.org today and thus through Solaris Nevada and will be included in a future release of Solaris 10.

(Q): Of lately Itanium (from HP & Intel) is gaining a lot of momentum in the server market. Does Sun have any plans to migrate Solaris onto Itanium architecture?

Mark Thacker (A): Not at this time. We do not see Itanium gaining in market share - with Microsoft dropping support for Windows on Itanium in the past. However, with the advent OpenSolaris, it's possible to consider porting Solaris to many different platforms. Continue to provide feedback through OpenSolaris.org and monitor activities there for other ports as well.

(Q): Which laptop processor supports an install of the Sun OS?

Chris Kawalek (A): There is a hardware compatibility list here:
<http://www.sun.com/bigadmin/hcl/overview.html>

(Q): Good Morning everyone, I don't know whether today there is anything on Sun Java Identity Manager. Recently I came across Sun Java Identity Manager. I am working as a Java Developer and I am very much interested in learning about Sun IDM. But there are no proper user guides or proper source to learn it apart from joining in a Sun Certified course. I apologize if this question is not appropriate for this today's Net Talk. Can you give me a suggestion? Thank you.

Marina Fisher (A): Have you looked into the documentation Sun Java System Identity Manager 7.1 <http://docs.sun.com/app/docs/coll/1514.3?l=en> There is also a developer forum to publish your questions: <http://forum.java.sun.com/index.jspa>

(Q): Has WSIT implemented all the WS* specifications? Any exceptions?

Harold Carr (A): There is a list of the specifications implemented by Project Tango (aka WSIT) on our Web site at: <https://wsit.dev.java.net/specification-links.html>. These are the same specifications implemented by .NET 3.0. WSIT does not implement all WS-* specs - only those necessary for .NET 3.0 interop. Future release will also include updates for .NET 3.5 interop. The Wiseman project (<https://wiseman.dev.java.net/>) implements WS-Management.

(Q): We have been testing Solaris 10 on Virtual PC 2007. Installation of the OS as a whole, including Sun Studio 11; although slow, is working. However the support of default Video card and Network card is poor. Any chance of improvements by Sun, or other info to help us with this????

Mark Thacker (A): We are adding enhancements all the time to Solaris to include better drivers for virtualized offerings such as Virtual PC. Many of these enhancements and drivers are already in OpenSolaris.org and thus available through Solaris Express. Also check out the Solaris Hardware Compatibility Guide through www.sun.com/solaris/ to get an idea of what drivers are available.

(Q): How to protect .NET Library from decompilation?

Gerald Beuchelt (A): This is really a question for Microsoft. As far as I know, there are no tools available for protection from decompilation. However, included in the full versions of Visual Studio you will find a free version of the RemoteSoft .NET obfuscator. Such an obfuscator make reading the decompiled code extremely difficult.

(Q): Is the software needed to run Windows included in the Solaris 10 Sun x64 software release? If so, what is the release version?

Mark Thacker (A): Solaris doesn't run Windows applications. There are ways to share files with Windows and (as noted in the presentation earlier), ways to share data and applications through common APIs and Web Services. Products such as Xen and VMware will allow you to run Windows in parallel with Solaris on the same piece of hardware. Sun is working very closely with both types of virtualization to allow Solaris to be a host of Windows environments in the future.

(Q): Any Open Beta Test Program for us to join for Sun Tango Software?

Arun Gupta (A): Project Tango is delivered with GlassFish V2 - an open source, production-quality and Java EE 5 compatible application server. GlassFish V2 beta3 is now available at <https://glassfish.dev.java.net/downloads/v2-b50g.html>. Please download it and send general feedback about GlassFish to users@glassfish.dev.java.net or <http://forums.java.net/jive/forum.jspa?forumID=56>, You can send Tango specific questions to users@metro.dev.java.net or <http://forums.java.net/jive/forum.jspa?forumID=46>. A complete overview of Project Tango is available at: <http://wsit.dev.java.net/docs/tango-overview.pdf>.

(Q): Any new information about a native Solaris CIFS driver ??

Mark Thacker (A): Do you mean a CIFS server (to serve up files to Windows clients) or a CIFS client (to allow Solaris systems to access Windows file servers)? Either way, this is mostly done through SAMBA today and we are releasing an enhanced version of SAMBA in the next release of Solaris. This is already available through www.opensolaris.org today and Solaris Express.

(Q): Sun is mostly on Server systems. Are there any plans to reach the Normal Desktop User?

Chris Kawalek (A): Sun's desktop products support the company's vision of The Network is the Computer. Our current product portfolio, including Sun Ray technology and Sun Secure Global Desktop Software, allow access to a variety of desktop environments and applications from a wide variety of client devices, including traditional desktop PCs running Windows, Mac OS X, Solaris or Linux.

(Q): Can Sun Ray dual boot to Windows & Solaris?

Angela Carducci (A): Sun Ray Software runs on Solaris and Linux. The Sun Ray Connector for Windows OS enables users to access Windows applications. Users can easily switch between all 3 environments.

(Q): Good day to all. Thank you for inviting me to this discussion. My question is that if I were to replace my current Windows Server 2003 with a Sun system. Can I still link my client PCs of Windows XP and Vista? My concern now is the server file storage. File storage will increase rapidly over the next few years. Any advice for me ?

Mark Thacker (A): Solaris can provide a variety of authentication technology for Windows, but Active Directory remains the main core for both authentication and authorization for Windows clients. Solaris (and Linux systems) can serve up file shares via SAMBA and thus participate in an Active Directory forest. So, keep your AD server and use Solaris as a massive file store via SAMBA.

(Q): Will Sun be contributing further to the open source community to make interoperability between Solaris/Linux/Windows much better and a happier experience for us network admins?

Harold Carr (A): Unfortunately no one in this chat session knows an answer regarding network admins. We suggest posting your question to <http://www.opensolaris.org> --- here's a list of specific mail lists: <http://mail.opensolaris.org/mailman/listinfo> My expertise is interoperability of Windows and Java Web services. That is an open source project: <http://wsit.dev.java.net/> We also have open source identity projects such as <http://opensso.dev.java.net/>

(Q): Where can I read more details about Tango with .NET?

Arun Gupta (A): Project Tango (Web Services Interoperability Technology or WSIT) allows for secure, reliable, transactional and .NET 3.0 interoperable Web services. A 26-page overview of Project Tango is available at <http://wsit.dev.java.net/docs/tango-overview.pdf>. The project is fully open-source (<http://wsit.dev.java.net>) and part of Project GlassFish (<http://glassfish.java.net>).

(Q): Where are you on your effort to add Xen to the bundled Solaris 10 release?

Mark Thacker (A): We have two different approaches : 1. Making Solaris a well-behaved guest OS instance and 2. Including the Xen hypervisor in Solaris itself. These will come out over time, some of #1 appearing in the next Solaris 10 release. Continue to watch for a Xen hypervisor in www.opensolaris.org in the near future.

(Q): Are there any enhancements to SFU/SUA from Microsoft so that Solaris applications can run seamlessly on Windows?

Gerald Beuchelt (A): Not that I am aware of. You will need to recompile the sources using the tools provided in SFU. If you are looking for a full Solaris runtime, you should consider virtualization through VMware, Xen, or Virtual PC/Server.

(Q): I have a .NET application that needs to connect to J2EE applications. What is the best approach? Web Service or something else?

Marina Fisher (A): There are multiple ways to achieve interoperability depending on your requirements. Web services is a good start and Sun works on achieving interoperability and addressing security, reliability and other systemic qualities with various WS-* standards/specs, <http://www.sun.com/products/interoperability/index.jsp>. Aside from WS, you can look into other interoperability strategies using messaging among other: http://www.sun.com/books/catalog/enterprise_class.xml

(Q): Where can I go for more info on remote Sun Ray and VPN integration?

Chris Kawalek (A): The forthcoming release of Sun Ray Software 4 Update 2 has an integrated VPN client for Sun Ray devices. You can find more information here: http://www.sun.com/software/sunray/techspecs_beta.jsp The docs for that release are also available here: <http://docs.sun.com/app/docs/coll/1230.6?l=en>

(Q): Is it possible to run .NET based Window applications on Sun/Linux/or other Operating Systems? If yes, what things are required to keep in mind while programming?

Gerald Beuchelt (A): You might want to take a look at Project mono. This is an open source effort to recreate the .NET runtime. Note however, that there are still some issues around intellectual property rights with mono and similar efforts.

(Q): I thought that PC NetLink was no longer supported by Sun. Am I mistaken?

Mark Thacker (A): I believe that PC NetLink is in a sustaining mode only. Our main emphasis is on the use of Samba and enhancing it to support Active Directory even better. This technology is available today through OpenSolaris / Solaris Express and will be included in a near future Solaris 10 release.

(Q): Good morning. What are the options available for a Windows based program (written in VC++ using MFC) to interoperate with applications running on Solaris (SPARC)?

Gerald Beuchelt (A): You can port such application to Solaris by using the MainSoft utilities.

(Q): Why doesn't SUN come up with a Laptop?

Chris Kawalek (A): On the thin client side of things, Sun OEMs have created different form factor devices that are compatible with Sun Ray infrastructures. Devices from companies such as Accutech and General Dynamics do indeed have a Sun Ray laptop.

(Q): Our company is completely focused on migration and interoperability, and we have done many such projects across Solaris and Windows. But my question is what exactly do you mean by interoperability with Microsoft? Can I run .NET apps on Solaris or can I get my VC++ or VB based apps to run on Solaris or can I get my Solaris apps to run on Windows? Can you clarify please and give me more details?

Gerald Beuchelt (A): Interoperability can happen on many different levels : basic TCP/IP networking, advanced identity services, Web services, cross-process interoperability. Sun is committed to improve interoperability across all these areas - where possible. Obviously there are some interoperability problems that can only be solved directly by Microsoft (such as porting the full .NET runtime or SDK to Solaris). To answer some of you more detailed questions: 1. .NET on Solaris - This can possibly be achieved by using the open source project mono tools. Note that there are still some IPR issues with this. 2. For COM/Win32 based applications you might want to consider MainSoft. 3. You can recompile Solaris apps on Windows by using the Cyrix system (free, Open Source) or Microsoft Services for UNIX (free).

(Q): I have a question on the service interface exposed by Sun Identity Manager. Is SPML service a proper Web service interface that can be secured with Sun Access Manager?

Harold Carr (A): We are prepared in this chat to answer Sun/MS interop. For an answer to your question I suggest posting to users@opensso.dev.java.net

(Q): If I am running containers in Solaris on Niagara - can I run Windows in the container - if so are there performance issues that would make it better to run Windows on Galaxy instead

Mark Thacker (A): Containers today do not allow anything other than Solaris to run in them. In OpenSolaris, and in a future release of Solaris 10, we will allow Linux applications to run inside of a Solaris container, on x86/x64 systems, but not SPARC-based systems. Xen and VMware on x86/x64 will allow you to run Windows/Linux side-by-side with Solaris on a x86/x64 system.

(Q): What tools and runtimes are available to create interoperable Web services ?

Arun Gupta (A): NetBeans IDE (<http://netbeans.org>) provides first-class support for creating secure, reliable, transactional and .NET 3.0 interoperable Web services. Please see a series of screencasts at <http://wsit.dev.java.net/screencasts.html> that shows exactly how these Web services can be created.

Couple of more useful entries are:

http://blogs.sun.com/arungupta/entry/glassfish_and_vista_interoperable_out and

http://blogs.sun.com/arungupta/entry/glassfish_v2_beta3_and_vista.

(Q): Is there any chance OS/X will be available as an application server on Sun Ray or SGD

Chris Kawalek (A): Even though Mac OS X is UNIX based, the graphical interface is quite rich and while we have some small deployments that have used products like VNC to access Mac OS X environments, in general terms the current solutions are not scalable to large sized deployments.

(Q): From where can I get complete information about SUN/MICROSOFT interoperability? Is there any official Website or forum available which will provide clear and complete information?

Moderator (A): Please check out the Sun Website:
<http://www.sun.com/products/interoperability/index.jsp>

(Q): Can I install Windows 2003 on SPARC servers?

Matt Wolf (A): Windows cannot be installed on SPARC systems. Windows 2003 is only supported on Sun x64 systems.

(Q): What are the new Intel based hardware coming out other than Blade 6000

Matt Wolf (A): Additional Intel systems will be released. Apologies that we cannot outline specific future roadmap plans on this Net Talk chat.

(Q): What versions of the Windows OS do you support on the x64 systems? Is this the same set supported on both the AMD and Intel platforms?

Matt Wolf (A): Sun supports Windows 2003, SP1 and later on Sun x64 servers. Sun supports Vista and XP on select Sun x64 workstations. Please see the following url to see precisely which systems are qualified with specific Windows OS versions: <http://www.sun.com/software/windows/>

(Q): Is Sun working with any distribution channel to deliver Windows based hardware/software?

Matt Wolf (A): Sun is working with many distribution partners to deliver Windows on Sun systems and solutions. At the enterprise level, major System Integrators including EDS and CSC have deployed and supported Windows on Sun for their customers. Check out this success story with CSC: <http://www.sun.com/aboutsun/pr/2007-03/sunflash.20070306.2.xml>. Additionally, Sun is working with many Value Added Resellers who have strong Windows on Sun expertise in the U.S. and internationally. Many Sun partners have reseller agreements with Microsoft.

(Q): What other 3rd party devices are supported in Sun Ray especially in regards to burning CD?

Angela Carducci (A): A list of supported USB devices on Sun Ray virtual display clients can be found http://www.sun.com/io_technologies/sunray/sunray0.html

(Q): Is Samba or any Sun product interoperable with Window domain controller?

Mark Thacker (A): Yes, today and with the next future release of Solaris, we enhance this to be better integrated with Active Directory. This technology is available now through OpenSolaris / Solaris Express.

(Q): Are there any user guides or books for the Access Manager to get hands on experience by practicing on the User interface of Sun Access Manager?

Gerald Beuchelt (A): You can obtain the official Administration Manual and related technical documentation in hardcopy from your preferred book retailer. These books are also available on docs.sun.com.

(Q): Where can I get the full length user guide or book for the Sun Java Identity Manager 7.1?

Marina Fisher (A): Here is the info Sun Java System Identity Manager 7.1
<http://docs.sun.com/app/docs/coll/1514.3?l=en>

(Q): What would be the advantage of the Sun Ray over e.g. an HP thin client? They both can run Windows and Linux (and I assume x86 Solaris on the HP).

Chris Kawalek (A): Each vendor's products have their own unique advantages. One of the advantages of our Sun Ray 2FS client is that it has a fibre channel interface. Sun also offers an integrated Sun Ray client (the Sun Ray 270) that includes a 17" display for users who prefer having an all in one solution.

(Q): Is there a simple way of integrating Solaris 10 (with Samba) into Active Directory, similar to what Red Hat or SLES 10 can do? Thanks a lot.

Mark Thacker (A): The next release of Solaris will include an enhanced capability in Samba to allow it participate in a AD environment fully. We also offer Kerberos and, separately, LDAP for Active Directory Authentication.

(Q): Can I run say legacy VB/VC++ applications on Solaris or similarly can I get my Motif based C/C++ based apps to run on the Windows?

Gerald Beuchelt (A): For running Windows code on Solaris, you might want to consider the COM/Win32 runtime from MainSoft. As far as Motif on Windows goes, I do not have a good answer for you at this time.

(Q): Can we use current Access Manager release as an STS? If so, could you please clarify? Any documentation?

Harold Carr (A): You cannot use the current AM as an STS for clients that use the WS-Trust protocol (used by Tango clients and used by MS .NET 3.0 clients). You can use AM as an STS for clients that use the Liberty protocol for obtaining tokens. The next release of AM (around December 2007) will include support for WS-Trust.

(Q): What is the current implementation for Sun Ray technology? Is M/S fully integrated for remote connections (employees at home) or is Citrix or some other transport mechanism required?

Chris Kawalek (A): Sun Ray Software 4 (available now) includes a component called the Sun Ray Connector for Windows that provides RDP client functionality for Sun Ray virtual display clients. This means that Sun Ray deployments can access Windows sessions (either from Windows Terminal Server or Windows XP Professional) without the need for third party products.

(Q): Is there any official Sun best practice documentation on getting Sun Directory server to share information (and passwords) with Active Directory?

Gerald Beuchelt (A): Please check the Sun Java System Directory Server Enterprise Edition 6.0 Installation Guide (URL included) and take a look at "Installing Identity Synchronization for Windows".

(Q): What makes your box a better solution for the VMware environment?

Matt Wolf (A): Check out new info below on how Sun x64 servers leading scalability leads to increased VMware flexibility and performance (as measured through benchmarks like VMmark). There are also some sales tools that can be useful: <http://www.sun.com/software/vmware/>

(Q): When will Sun ship Solaris with a supported version of Samba that works with Microsoft Active Directory?

Mark Thacker (A): Such a version of Samba is already in the OpenSolaris source tree and thus available through Solaris Express. We are planning on delivering this into Solaris 10 in the next release, due in August 2007.

(Q): Can we use WSIT components in other Application Servers like WebLogic or WebSphere? i.e. achieve whatever glassfish is achieving?

Arun Gupta (A): WSIT (aka Project Tango) is integrated in GlassFish V2 or Sun Java System Application Server 9.1. A stand-alone build of WSIT downloadable from <http://wsit.dev.java.net> contains an install script for Apache Tomcat 5.5.x. An experimental support is also available on Jetty (http://blogs.sun.com/arungupta/entry/tango_on_jetty) and Java SE (http://blogs.sun.com/arungupta/entry/tango_on_javase_6). BEA Web Logic Server 10 ships with JAX-WS 2.0. I've seen reports where other users have been able to use the WSIT stack in WebLogic and JBoss. Basically, you need to use all the Webservice-*.jar from GlassFish lib in the Application Server of your choice and ensure that the class loader loads them correctly. Please post any further questions to users@metro.dev.java.net.

(Q): Are there any planned enhancements to allow for a homogenous environment across all Microsoft and Sun platforms?

Matt Wolf (A): There are many areas where Sun and Microsoft have worked together on interoperability initiatives. These include Web single sign on between Active Directory and LDAP, system management standards interop in areas like WS Management, and fully supporting Windows on Sun systems. There are many more enhancements planned, but we cannot speak to future plans in this forum. To see details of what is in place today, please refer to:
<http://www.sun.com/products/interoperability/index.jsp> and: <http://www.sun.com/software/windows/>

(Q): From which release of Access Manager is Project Tango integrated? Any specific Access Manager documents?

Harold Carr (A): I am not sure of the name/number of the AM release that includes Tango support. It is targeted for December 2007. There is documentation on using AM as an STS on <http://wsit.dev.java.net/>

(Q): Will the Sun Ray be available in the future with an internal CDROM?

Angela Carducci (A): Sun Ray virtual display clients do not include an internal CDROM. We cannot discuss futures on this chat but we can tell you that there are many original equipment manufacturers (OEMs) who are delivering and experimenting with different Sun Ray features & form factors. Also, users can plug a cd-rom into the USB port of a Sun Ray today for basic functionality.

(Q): Two applications ported to Apple's BSD OS run Windows applications transparently; they are Bootcamp and Parallels. Is there any chance Sun will be porting them to Solaris?

Chris Kawalek (A): Sun is very interested in virtualization technologies and in addition to our current support for LDOMs and Solaris Containers, we're actively exploring other virtualization technologies. There have not been any announcements around Parallels and Apple's Boot Camp specifically, though.

(Q): What is Microsoft interoperability?

Marina Fisher (A): There are a number of interoperability technologies available, please check on Sun interoperability site: <http://www.sun.com/products/interoperability/index.jsp> and the Java EE and .NET Interop book by Sun Press:
http://www.sun.com/books/catalog/enterprise_class.xml?section=About%20the%20Authors

(Q): We are using Solaris 10 on SPARC. What software do we need to run Windows?

Matt Wolf (A): Windows is supported on Sun's x64 systems (AMD and Intel based systems). Windows is not supported on Sun's SPARC systems. One potential solution is Solaris PC NetLink software (based on AT&T Advanced Server for UNIX) delivers Windows network services--which include directory, authentication, and file-and-print services--on Solaris environment servers (including SPARC servers). More details can be found here: <http://www.sun.com/products/interoperability/netlink/>

(Q): We have J2EE and .NET Web services and want to identity enable them seamlessly using Sun Access Manager.

Arun Gupta (A): GlassFish V2 (downloadable from <http://glassfish.java.net>) contains Web Services Interoperability Technology (WSIT or Project Tango). GlassFish is an open-source, production-quality and Java EE5 compatible Application Server. Project Tango provides secure, reliable, transactional and .NET 3.0 interoperable Web services. The security mechanisms in Project Tango are integrated with Sun Access Manager. Please post specific questions to users@metro.dev.java.net.

(Q): What is the biggest advantage of running MS Windows: On a Sun workstation? On a Sun Ray thin client?

Chris Kawalek (A): Thanks for your question Max. I focus on our Sun Ray and SGD products so I can answer there. Sun Ray virtual display clients offer a choice of desktop environments: Solaris, Linux, or Windows. For users that want to deploy Windows desktops, the fact that there is no local storage on Sun Ray devices (among other benefits) makes the Sun Ray client a very strong platform for

deploying secure Windows desktops.

(Q): Our client base typically uses Active Directory as the primary source for authentication and authorization. To date, we have provided this using a combination of Kerberos, LDAP Client, and Samba. What is the preferred way method/system for Sun/Linux servers to integrate with AD for authentication and authorization.

Gerald Beuchelt (A): At this time, the preferred way is still using a LDAP PAM module for operating system integration. For access control to Web applications you might want to consider using Sun Access Manager (or the open source project OpenSSO).

(Q): Good Morning. Could you please let me know the exact products to use to build interoperable Web Services?

Arun Gupta (A): Please download GlassFish V2 from <http://glassfish.java.net>. GlassFish contains Project Tango (Web Services Interoperability Technology or WSIT) that provides secure, reliable, transactional and .NET 3.0 interoperable Web services. There are numerous screencasts available that shows how to develop interoperable Web services at: <https://wsit.dev.java.net/screencasts.html>. More details about Project Tango are available at: <http://wsit.dev.java.net/docs/tango-overview.pdf>.

(Q): When is Sunray 4 releasing as a product

Angela Carducci (A): We will be releasing Sun Ray Software 4 9/07 in August (revenue release) and in September for general availability.

(Q): When we are working with the Sun Java IDM, we are using servers like Oracle SQL server, DB2. When we want to run the user interface through the Oracle at the backend all the tables are within the XML BLOB. So we are unable to read the DATA. Is there any way for that?

John Tollefsrud (A): You might check out the developer forums at forum.sun.java.com. But I understand your question to be about data access at the Oracle back-end. I'm sorry, the experts gathered for this Microsoft interoperability don't have the domain expertise on Oracle.