

Holy Cross Health
Web Server Project
Request for Technical Information

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Category	Sub-Category	Question	Response

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Clinical requirements	Functionality	Describe the functionality for the viewer. We are interested in W/L preset by modality by user, manual W/L, zoom, pan, magnify, measurements, selection of layouts, and comparison of studies	W/L presets are available and can be configured specifically for each type of modality, additionally individual users can modify W/L manually. ISite provides, zoom, pan, three measurement tools (ruler, angle and ROI), the ability to modify layouts and magnification of CT.
	MRI viewing	Is your viewer able to lock series for easy viewing of MRI studies?	Yes, and MR can be linked to CT for comparisons.
System requirements	Connectivity	Can your system connected to the existing Kodak PACS and except all the modalities that Holy Cross Hospital captures and stores into that system?	Yes. The iSite server is a DICOM SCP and can receive data which is DICOM 3.0 compliant. We currently support CT, MR, CR, DR, US (Grey scale, single frame), XA, XF, and secondary capture
	Requirement	HCH requires a minimum of 30 days online. Please include this requirement in your quote.	Stentor provides 30 days of online storage as part of our standard configuration. Additional storage is available for a nominal charge.
		HCH requires your system to accept a login and password from a physician portal that will be implemented in 2001. This portal will most likely be ACESSPt. From Sysource. http://www.sysource.com	Yes, login through the portal can be achieved through a scripted page.
Standard Technology	DICOM	Is your system DICOM 3.0 compliant?	Yes
		List the DICOM SOP classes that are validated for both the server and viewing.	The iSite server is a DICOM SCP. Exams are reviewed on standard PCs using Stentor's proprietary iSyntax Format.

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		Submit a DICOM conformance statement for all components on your system.	Attached.
Technical Platform	Server Hardware Requirements	Document recommended brand of servers and size. Server Structure Web Server Farm Database Servers Document how many users can be supported with one server.	Stentor will provide a Compaq Enterprise Server as part of our Standard ASP Package. The System can be configured to support up to 200 users
	Server Software Requirements	Document software requirements.	Stentor provides server hardware and software. We are presently Shipping servers with Windows 2000 Server
	Server Troubleshooting Software	Describe software used to troubleshoot server problems.	ISite self diagnosis utilizing Stentor's proprietary "Heartbeat Technology" in which the system sends itself an exam encodes it, views it and then runs a series of self test every fifteen minutes. After the test is completed the system sends a message to Stentor's Monitoring Center stating that the system is functioning normally or with any error messages which may have occurred during the testing. Error messages automatically are escalated to our web-based trouble ticket system. Utilizing Compaq Event Notifier and Remote Insight Board for hardware issues.
	Network Configuration	Describe any restrictions that exist with running your product on a WAN.	Special configurations may be required if using NAT.
	Network Traffic	Do you have any statistics on the network traffic	Stentor's iSyntax Technology reduces the amount

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		generated by your product?	of data traffic compared to raw DICOM pushes exceeding 100:1
	Network Protocols	Please list supported network protocols.	TCP/IP.
	Redundancy	How do you support redundancy?	Std. hardware ships with dual-NICs & power supplies. OS volume is mirrored, image data held in RAID 5 volume. Optionally the database volumes can be mirrored.
	Load balancing	Do multiple CPUs support your product? If so, is load balancing available?	The standard server configuration is a dual CPU machine which does load balance between the DICOM input and distributing iSyntax coefficients to requesting client machines. Additionally quad processor servers are an available option. Stentor is currently exploring other load balancing options.
	Backups	<p>What backup and restore processes are supported by your system?</p> <p>What is the impact to real time operations while a backup is run?</p> <p>Do users need to sign off?</p> <p>What happens to connected sessions?</p>	<p>N/A The iSite system is not intended to be an archive, but rather to augment the existing archive. Our assumption is that all back up will be achieved by the archive.</p> <p>Real-time operations are halted while back-up is completed.</p> <p>Yes user will need to log off.</p> <p>Connected sessions will be terminated.</p>
	Remote Access	<p>Please document recommended remote access platforms.</p> <p>Describe minimal and ideal technical requirements.</p>	<p>Stentor recommends utilizing a Virtual Private Network (VPN).</p> <p>More information regarding the network</p>

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		Describe recommended method for access via a private network and via the Internet.	infrastructure is required. VPN
	Licenses	Describe licensing agreement for your product.	We license the software to the site. There are no limits to the number of seats
	Hardware installation	Do you install the hardware or is it the customers' responsibility? Is it optional?	Stentor will dispatch a Compaq technician to install the server hardware. Yes provided the customer acquires the appropriate hardware.
	Workstation	What is the minimal configuration for a workstation using your product?	A standard Windows PC, Pentium 166, with 64 MB of RAM and Internet Explorer 4.0
		What browsers does your product support? Is there any other software required to be loaded on the workstation?	Internet explorer 4.0 – 5.0 for Windows
	Workstation	Describe how your product interacts with other products running on the desktop.	iSite is an Active-X plug in to Internet Explorer and such does not interfere with other applications on the desktop
	Workstation – Instance Control	Does your product allow for only one instance of your product (browser) opened at a time? How do you override an existing user who is logged in? If your product does support multiple instances of the browser, have you ever instance control of your browser to only one ? In relationship to security and the above questions, how do you secure the screens/data in high	No, multiple instances of IE can be spawned. Administratively from the server. No. The system “time out” is configurable.

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		<p>volume areas?</p> <p>If yes, please describe.</p>	
	Workstation Troubleshooting	Describe any software that can be used to troubleshoot workstation problems.	Please see Heartbeat Technology explanation above.
	Workstation – Printing Capability	<p>Describe the printing capabilities that users have when accessing the data via your product.</p> <p>For a workstation do you use the default printer on the workstation?</p> <p>Is printing capability via printing via the browser? Please list any other options.</p>	<p>Exams can be directly printed to a laser or inkjet printer. Or the image data can be copied to the clipboard for inclusion in documents, presentations or teaching files (copying to the clipboard removes patient demographic s data).</p> <p>Yes we use the default printer.</p> <p>Yes.</p>
	Database	<p>Does the product have its own database?</p> <p>What product is used for the database?</p>	<p>Yes.</p> <p>Object Store.</p>
	Programming language and tools	<p>Describe the programming language and any tools used in supporting product.</p> <p>Describe specifically the tools that are used for administration and development.</p>	C++ & Active X

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Maintenance	End point system upgrades such as PACS System Upgrades	How does your product handle system upgrades and patches?	Stentor supplies software and hardware updates as part of our standard ASP program.
		What kind of lead-time is required for requesting changes due to system upgrades?	Variable depending on the type of request. Upgrades and repairs to Hardware can be initiated within four hours by the local Compaq representative.
		Do you have the capability of supporting an IMMEDIATE change due to a system fix?	Yes, depending on the severity of the issue.
	Administration	Describe the administration requirements for maintaining logons, userids, etc.	Standard NT user administration.
		Can another SOO tool maintain your user database?	No.
		Describe the human resource requirements and the skill sets for administering your system – for example, 1 FTE per 1,000 userids.	There are no special requirements
		Does your system have the ability to assign users into groups?	Yes
		Does administration of your product replace/ “override” administration in other systems?	No
	Response Time: LAN, WAN Remote –Dial-up	Does your product/company guarantee any specific response times?	Yes. Our 99.9% uptime guarantee provides that images will be available on a properly configured 10 Base T or greater network in 5 seconds.

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Security	Password	How does your product synchronize the passwords between multiple systems?	The system can be configured to accept the usernames and passwords for individuals logging onto the workstation. Additionally, Stentor publishes its API for integration with third party conduits such as Electronic Medical Records.
		How does your system handle requests for information when users have access to some systems but not all? What kind of messages would the user receive?	It returns a message indicating that the user does not have appropriate access. See above.
		Does your product support password aging? If so, please describe.	Yes. Through standard Server password aging.
		Does your product support timeouts? How does your product handle end point application timeouts? If so, please describe.	Yes If a user does not interact with the system for a configurable amount of time (ten min. default) the system will log the user out of iSite and return them to the log in.
		Does your product meet the HIPAA standards as they are proposed today?	Yes
	Authentication	Describe how the product authenticates a user.	Via User Name & Password
	Auditing	Describe how your system tracks and creates audit trail. What elements do you track? For how long? Can this information be archived?	The system tracks user as they log in, additionally it tracks what the IP address of the log in workstation and the exam and time stamp when an exam is accessed for viewing.
	HIPAA	Supply sample reports that show how users actions are tracked and how many users accessed an exam.	Attached
	Encryption over the Internet	Does your product use encryption for all system requests – view, print, etc.?	Stentor's proprietary iSyntax encoding scheme is an encryption system. Stentor highly recommends

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		<p>If yes, please list options for encryption.</p> <p>If so, please describe HCH any responsibilities for acquiring the encryption software.</p>	<p>utilizing a VPN for distribution of exams out side of the LAN.</p> <p>VPN</p>
	Audit	Describe the audit controls that are available in your product.	Stentor captures all log in, exam access and time stamps of access in the system audit log
Time Frame	Overall Time line	<p>Please attach a sample project timeline and plan for development and implementation.</p> <p>Describe the scope of a project to provide browser capability for a physician workstation?</p>	<p>A typical enterprise system install requires two days. Stentor will ship the equipment to the site a Compaq Local Technician will arrive on site and install the hardware. Stentor Technical support will then install the iSite software and confirm all DICOM associations and connectivity for reports. We create specific plans for each installation.</p>
System Usability	Search Features	What search features are generally available via your product?	Searches can be initiated by Patient Name, Patient ID, study date, accession number and referring physician or any combination of the above.
	Login	Describe the process for the actual login to your product.	<p>The end user enters the specific IP address into Internet Explorer, if it is the first time the client machine has accessed iSite, the server will download the Active-X plug in. The user will be presented with a login screen, which requires a username and password. The user can also select the type of connection they have, LAN, WAN, DSL/Cable or ISDN/Modem. Upon logging in the user will be presented with the</p>

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			appropriate patient list for the user/user group for that day.
	Error messages	How are error messages presented to the user? Is there online help associated with the error messages? Can the customer modify the text of error messages?	Error messages are presented in bold red type at the top of the user interface. The on-line help, tutorials and video demonstrations are accessed through the help menu. No
Service & Support	Support	What is the support for your product?	We offer 24/7 technical support and system monitoring.
		What is the cost of a service contract?	It is included in the standard ASP model.
		What is your guarantee uptime?	99.9%
		How do you train new users?	Stentor offers on-site and remote web based training, in addition to the on-line help, tutorials and video demonstrations
		Is there any quality assurance measure for your system?	Yes. Stentor is both ISO 9001 and EN 46001 certified. Additionally please see the explanation of "Heartbeat Technology" above.