

Blood bank information systems

Part 1 of 10 See accompanying article on page 12	Blood Bank Computer Systems Brian Forbis bforbis@bbcsinc.com 1002 15th St. SW, Suite 120 Auburn, WA 98001 253-333-0046 www.bbcsinc.com	Cerner Corp. Brooke Spicer brooke.spicer@cerner.com 2800 Rockcreek Parkway Kansas City, MO 64117 816-201-7766 www.cerner.com
Name of blood bank system	Blood Bank Control System	PathNet Millennium Blood Bank Transfusion
First ever/most recent blood bank system installation	1987/May 2008	1997/June 2008
Last major product release (for product featured)	March 2008	November 2006
Total number of contracts for operational sites	29	—
•Contracts for U.S. hospitals with donor and transfusion service	2	—
•Contracts for U.S. hospitals with transfusion service only	0	—
•Contracts for U.S. regional blood centers with donor service only	22	—
•Contracts for U.S. regional blood centers with donor and transfusion service	4	—
•Contracts for centralized transfusion services in the U.S.	0	—
•Contracts for foreign hospitals and regional blood centers	0	—
•Contracts for other sites	1 (National Institutes of Health)	—
Number of contracts signed between June 2007–June 2008	1	—
Total number of sites operational	120	—
Installs not yet live (hospitals/regional blood centers/others)	5 (0/5/0)	—
Number of sites that went live between June 2007–June 2008	1	—
Percentage of installations that are stand-alone systems	100%	—
Staff to develop/install and support/other* in entire company	17/11/3	—
Staff to develop/install and support/other* in blood bank systems	—	—
Number of different versions of software installed	2	4
•Versions of product in field covered by FDA 510(k) clearance	Blood Bank Control System 5.0, 4.4	2005.01, 2005.02, 2007, 2008VN1
•Versions of product that did not require FDA 510(k) clearance	0	0
Range in number of interactive workstations in live sites (average)	10–200 (average, 40)	not tracked
Central hardware or services type	IBM iSeries	HP, IBM
Workstations or PC platform	IBM-compatible workstations, PCs	Microsoft Windows locally or via Citrix thin client
Software programming language(s)	RPG 400, Java	Java, Visual Basic, C++, Visual C
Operating system(s)	OS/400	HP-UX, AIX, VMS
Databases and tools	IBM DB2	Oracle
Features (listed as percentage of live installs or based on availability)		
•Full support of ISBT 128 unit labeling	52%	installed
•Bar-code reading of donor and unit information	100%	installed
•Unit inventory	100%	installed
•Autologous and directed unit tracking	100%	installed
•Direct entry of test results	100%	installed
•Crossmatch results	17%	installed
•Electronic crossmatch decision making	3%	installed
•Antigen typing	100%	installed
•Handheld devices for positive patient ID	not available	installed
•Integrated bedside check for transfusion	not available	installed
•Track all steps in production of product	100%	installed
•Print donor unit labels—bar coded	3%	installed
•Interface with automated instruments	100%	installed
•Interface with blood irradiator or centrifuges	not available	installed
•Centralized transfusion service capability	7%	installed
•Donor recruitment and management/donor questionnaire	installed/21%	available through company's LIS or via third party (both features)
•Mobile scheduling	installed	available through company's LIS or via third party
•Laptop-based mobile donor registration module	installed	available through company's LIS or via third party
•Source or recovered plasma management	100%	available through company's LIS or via third party
•Accounts receivable	100%	installed
•Management reports/ad hoc report writer	100%/100%	installed/installed
•Quality control management/collection management	100%/100%	installed/installed
System provides standard HL7 interface?	yes (version 2.x-configurable)	yes (versions 2.3, 2.3.1)
Interfaces to automated donor infectious disease testing instruments	uni-directional to Ortho, Immucor, Abbott, Olympus, IDM	—
Interfaces to automated ABO/Rh/antibody screening instruments	uni-directional to Ortho, Immucor, Abbott, Olympus	bi-directional to Ortho, Immucor, DiaMed
FDA 510(k)-approved interface to bedside patient ID system?	no	no
Languages (other than English) offered on system	—	German, Spanish, French
Tools to help clients validate their systems	validation protocols, flow charts, management guides, validation guide documents, risk mitigation online portal, 24/7 client support	certification guidelines, design and build support guides
Complete blood bank ASP solution?	yes	yes
Method of charging for ASP service	transaction based	fixed fee
Client software required	browser based, requires software be installed on a client PC	requires software be installed on a client PC, Citrix thin client
ASP information conduit	operates over the Internet	requires use of a VPN or other dedicated connection
Client contracts supported from data center not operated by client	3	—
How data center is operated	by a third party (blood bank or IBM Business Partner)	by vendor
System provides indexed field in each test definition for LOINC code?	no	yes
Provide LOINC dictionary for each new installation?	no	yes
Information system interfaces	Cerner, IDM, Medware, Meditech	—
User group?	yes (meets in person annually)	yes (meets via Internet and in person)
Source code?	escrow	escrow
Can user modify screens?	no	yes
User-defined report writer/custom programming?	yes/yes	yes/no
Cost for smallest & largest stand-alone HW/SW/install & training/monthly maintenance	—	—
Cost for smallest & largest integrated HW/SW/install & training/monthly maintenance	—	—
Distinguishing features (supplied by vendor)	<ul style="list-style-type: none"> • complete blood center management package from recruiting to transfusion • self-registration and customizable online questionnaire capable of touch screen integration supporting a paperless donor room • system is highly configurable to fit the needs of large and small facilities 	<ul style="list-style-type: none"> • integrated module of the Cerner Millennium suite of laboratory and patient care solutions • all data stored in a single data model; no interfaces required between modules • blood bank users with appropriate security have access within the unified system to all laboratory testing and patient care data
*other=sales, marketing, administration, other company functions		
<i>Note: a dash in lieu of an answer means company did not answer question or question is not applicable</i>		

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Part 2 of 10	GE Healthcare Janet Landsberg janet.landsberg@med.ge.com 3100 Steeles Ave. East, Suite 900 Markham, Ontario, L3R 8T3 Canada 905-413-9032 www.gehealthcare.com	Haemonetics Corp. Mary Wortley wortley@haemonetics.com 400 Wood Rd. Braintree, MA 02184 781-356-9732 www.haemonetics.com
See accompanying article on page 12		
Name of blood bank system	Centricity Laboratory	Symphony
First ever/most recent blood bank system installation	1996/2008	1991/2008
Last major product release (for product featured)	2008	2008
Total number of contracts for operational sites	11	4
•Contracts for U.S. hospitals with donor and transfusion service	0	0
•Contracts for U.S. hospitals with transfusion service only	1	0
•Contracts for U.S. regional blood centers with donor service only	0	4
•Contracts for U.S. regional blood centers with donor and transfusion service	0	0
•Contracts for centralized transfusion services in the U.S.	0	0
•Contracts for foreign hospitals and regional blood centers	10	0
•Contracts for other sites	0	0
Number of contracts signed between June 2007–June 2008	0	2
Total number of sites operational	20	4
Installs not yet live (hospitals/regional blood centers/others)	1 (1/0/0)	10 (0/10/0)
Number of sites that went live between June 2007–June 2008	0	3
Percentage of installations that are stand-alone systems	0	10%
Staff to develop/install and support/other* in entire company	46,000 (total)	78/65/84
Staff to develop/install and support/other* in blood bank systems	—	28/20/34
Number of different versions of software installed	4	2
•Versions of product in field covered by FDA 510(k) clearance	3.3, 4.0	Prelude 1.3, Symphony 2.1
•Versions of product that did not require FDA 510(k) clearance	2.4, 3.2	0
Range in number of interactive workstations in live sites (average)	2–10 (average, 6)	3–50+ (average, 15)
Central hardware or services type	Unix-based platforms	—
Workstations or PC platform	PCs with Windows 2000, XP	Windows XP
Software programming language(s)	C, C++, Unify Vision	Java
Operating system(s)	Unix	Windows server 2003
Databases and tools	Unify DataServer database, Unify Development tool kit	Oracle
Features (listed as percentage of live installs or based on availability)		
•Full support of ISBT 128 unit labeling	installed	100%
•Bar-code reading of donor and unit information	installed	100%
•Unit inventory	100%	100%
•Autologous and directed unit tracking	100%	100%
•Direct entry of test results	100%	100%
•Crossmatch results	100%	not available
•Electronic crossmatch decision making	installed	not available
•Antigen typing	installed	not available
•Handheld devices for positive patient ID	available via third party	not available
•Integrated bedside check for transfusion	available via third party	not available
•Track all steps in production of product	not available	100%
•Print donor unit labels—bar coded	installed	100%
•Interface with automated instruments	installed	100%
•Interface with blood irradiator or centrifuges	not available	100%
•Centralized transfusion service capability	installed	not available
•Donor recruitment and management/donor questionnaire	not available/not available	not available/100%
•Mobile scheduling	not available	not available
•Laptop-based mobile donor registration module	not available	100%
•Source or recovered plasma management	not available	not available
•Accounts receivable	not available	not available
•Management reports/ad hoc report writer	100%/100%	100%/not available
•Quality control management/collection management	not available/not available	not available/not available
System provides standard HL7 interface?	yes (versions 2.2, 2.3)	no
Interfaces to automated donor infectious disease testing instruments	—	—
Interfaces to automated ABO/Rh/antibody screening instruments	bi-directional to Ortho, Immucor, Olympus, DiaMed, Wadiana	—
FDA 510(k)-approved interface to bedside patient ID system?	no	no
Languages (other than English) offered on system	none	—
Tools to help clients validate their systems	validation checklists that cover setup, testing, and verification; internal test case manual used for FDA validation available on request	product user manuals, configuration worksheets, training classes and materials, complete product validation guide, post go-live consultation
Complete blood bank ASP solution?	no	yes
Method of charging for ASP service	—	fixed fee
Client software required	—	requires software be installed on a client PC
ASP information conduit	—	requires use of a VPN or other dedicated connection
Client contracts supported from data center not operated by client	—	—
How data center is operated	—	—
System provides indexed field in each test definition for LOINC code?	yes	no
Provide LOINC dictionary for each new installation?	no	no
Information system interfaces	Cerner, Meditech, Siemens, GE, McKesson, others	BBCS, Cerner, Mak-System, Medware, Wyndgate, Systec
User group?	yes (meets via Internet at least quarterly; in person annually)	yes (meets in person annually)
Source code?	escrow	escrow
Can user modify screens?	yes	no
User-defined report writer/custom programming?	yes/no	yes/yes
Cost for smallest & largest stand-alone HW/SW/install & training/monthly maintenance	—	—
Cost for smallest & largest integrated HW/SW/install & training/monthly maintenance	—	—
Distinguishing features (supplied by vendor)	<ul style="list-style-type: none"> fully integrated with other laboratory disciplines in a single relational database full security control over data access; extensive audit tracking multi-site capabilities that allow numerous blood banks to maintain inventory and information individually 	<ul style="list-style-type: none"> commitment to the entire blood management market—from donor to patients through software, services, and devices commitment to continually refresh product and release new modules extensive customer base and financial stability
*other=sales, marketing, administration, other company functions		
Note: a dash in lieu of an answer means company did not answer question or question is not applicable		

Tabulation does not represent an endorsement by the College of American Pathologists.

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Part 3 of 10	Mak-System Corp. Stéphane Sajot sales.us@mak-system.net 2720 River Rd., Suite 225 Des Plaines, IL 60018 847-803-4863 www.mak-system.net	Mak-System Corp. Stéphane Sajot sales.us@mak-system.net 2720 River Rd., Suite 225 Des Plaines, IL 60018 847-803-4863 www.mak-system.net
See accompanying article on page 12		
Name of blood bank system	eProgesa	Patient Health Software (PHS) Transfusion Service, Hemovigilance Lab [†]
First ever/most recent blood bank system installation	1984/July 2008	1984/July 2008
Last major product release (for product featured)	January 2008	June 2007
Total number of contracts for operational sites	53	489
•Contracts for U.S. hospitals with donor and transfusion service	0	1
•Contracts for U.S. hospitals with transfusion service only	0	0
•Contracts for U.S. regional blood centers with donor service only	0	0
•Contracts for U.S. regional blood centers with donor and transfusion service	0	1
•Contracts for centralized transfusion services in the U.S.	0	1
•Contracts for foreign hospitals and regional blood centers	53	486
•Contracts for other sites	0	0
Number of contracts signed between June 2007–June 2008	16	55
Total number of sites operational	49	480
Installs not yet live (hospitals/regional blood centers/others)	17 (8/9/0)	7 (6/1/0)
Number of sites that went live between June 2007–June 2008	—	57
Percentage of installations that are stand-alone systems	100%	100%
Staff to develop/install and support/other* in entire company	145/116/72	145/116/72
Staff to develop/install and support/other* in blood bank systems	145/116/72	145/116/72
Number of different versions of software installed	—	—
•Versions of product in field covered by FDA 510(k) clearance	5.0	1.0 (PHS)
•Versions of product that did not require FDA 510(k) clearance	—	—
Range in number of interactive workstations in live sites (average)	10–3,000 (average, 45)	3–2,000 (average, 35)
Central hardware or services type	Sun, IBM, HP, Wintel	Unix, Windows, Linux
Workstations or PC platform	no restrictions	PC, Windows XP, 2000
Software programming language(s)	C, C++, Pro-5, Java	Delphi, Java
Operating system(s)	Unix-Linux	Microsoft Windows
Databases and tools	Oracle, C-ISAM	Oracle
Features (listed as percentage of live installs or based on availability)		
•Full support of ISBT 128 unit labeling	installed	installed
•Bar-code reading of donor and unit information	installed	installed
•Unit inventory	installed	installed
•Autologous and directed unit tracking	installed	installed
•Direct entry of test results	installed	installed
•Crossmatch results	installed	installed
•Electronic crossmatch decision making	installed	installed
•Antigen typing	installed	installed
•Handheld devices for positive patient ID	—	—
•Integrated bedside check for transfusion	—	installed
•Track all steps in production of product	installed	installed
•Print donor unit labels—bar coded	installed	—
•Interface with automated instruments	installed	installed
•Interface with blood irradiator or centrifuges	installed	installed
•Centralized transfusion service capability	—	installed
•Donor recruitment and management/donor questionnaire	installed/installed	—
•Mobile scheduling	installed	—
•Laptop-based mobile donor registration module	installed	—
•Source or recovered plasma management	installed	—
•Accounts receivable	installed	installed
•Management reports/ad hoc report writer	installed/—	installed/installed
•Quality control management/collection management	installed/installed	installed/—
System provides standard HL7 interface?	yes (version 2.x)	yes (version 2.x)
Interfaces to automated donor infectious disease testing instruments	uni- and bi-directional to Ortho, Immucor, Abbott, Olympus, DiaMed	—
Interfaces to automated ABO/Rh/antibody screening instruments	—	uni- and bi-directional to Ortho, Immucor, Abbott, Olympus, DiaMed, Grifols
FDA 510(k)-approved interface to bedside patient ID system?	—	—
Languages (other than English) offered on system	all languages (German, French, Arabic, Farsi, Finnish, Chinese, etc.)	all languages (German, French, Arabic, Farsi, Finnish, Chinese, etc.)
Tools to help clients validate their systems	IQ, PQ, OQ, risk analysis, user guides, hazard analysis, training modules	user guides, hazard analysis, training manuals, data conversion, validation scenario samples, IQ, PQ, OQ, risk analysis
Complete blood bank ASP solution?	yes	yes
Method of charging for ASP service	fixed fee	fixed fee, production based
Client software required	browser based	requires software be installed on a client PC
ASP information conduit	requires use of a VPN or other dedicated connection	operates over the Internet, requires use of a VPN or other dedicated connection
Client contracts supported from data center not operated by client	3	2
How data center is operated	by a third party	by a third party
System provides indexed field in each test definition for LOINC code?	—	yes
Provide LOINC dictionary for each new installation?	—	—
Information system interfaces	—	—
User group?	yes (meets in person twice a year)	yes (meets in person twice a year)
Source code?	escrow	escrow
Can user modify screens?	—	no
User-defined report writer/custom programming?	yes/—	yes/yes
Cost for smallest & largest stand-alone HW/SW/install & training/monthly maintenance	—	—
Cost for smallest & largest integrated HW/SW/install & training/monthly maintenance	—	—
Distinguishing features (supplied by vendor)	—	<ul style="list-style-type: none"> • elaborate communication capabilities with Progesa blood bank software and eProgesa • abundant functionality, including hemovigilance features and transfusion documentation at bedside • highly customizable through parameters
*other=sales, marketing, administration, other company functions		
<i>Note: a dash in lieu of an answer means company did not answer question or question is not applicable</i>		[†] named Traceline outside the U.S.

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Part 4 of 10 See accompanying article on page 12	Mak-System Corp. Stéphane Sajot sales.us@mak-system.net 2720 River Rd., Suite 225 Des Plaines, IL 60018 847-803-4863 www.mak-system.net	McKesson Joseph R. Stabile joseph.stabile@mckesson.com 5995 Windward Parkway Alpharetta, GA 30005 404-338-4363 www.mckesson.com/laboratory
Name of blood bank system	Progesa	Horizon Blood Bank
First ever/most recent blood bank system installation	1984/—	2004/June 2008
Last major product release (for product featured)	—	summer 2008
Total number of contracts for operational sites	625	49
•Contracts for U.S. hospitals with donor and transfusion service	1	0
•Contracts for U.S. hospitals with transfusion service only	0	46
•Contracts for U.S. regional blood centers with donor service only	5	0
•Contracts for U.S. regional blood centers with donor and transfusion service	0	0
•Contracts for centralized transfusion services in the U.S.	0	0
•Contracts for foreign hospitals and regional blood centers	619	3 (Canada)
•Contracts for other sites	0	0
Number of contracts signed between June 2007–June 2008	0	14
Total number of sites operational	624	80
Installs not yet live (hospitals/regional blood centers/others)	17 (8/9/0)	23 (23/0/0)
Number of sites that went live between June 2007–June 2008	—	9
Percentage of installations that are stand-alone systems	100%	0
Staff to develop/install and support/other* in entire company	145/116/72	31,500 (total for McKesson Corp.)
Staff to develop/install and support/other* in blood bank systems	145/116/72	40/34/19†
Number of different versions of software installed	—	3
•Versions of product in field covered by FDA 510(k) clearance	4.4	Safe Trace Tx 3.2, 3.3, 3.4
•Versions of product that did not require FDA 510(k) clearance	—	0
Range in number of interactive workstations in live sites (average)	10–1,400 (average, 100)	1–6 (average, 2)
Central hardware or services type	Sun, IBM, HP, Wintel	Intel- and Unix-based servers
Workstations or PC platform	no restrictions	PCs
Software programming language(s)	C, C++, Pro-5, Java	Delphi, SQL, Crystal Reports
Operating system(s)	Unix-Linux	Microsoft Windows XP Professional, Windows 2003 (Unix optional)
Databases and tools	Oracle, C-ISAM	Oracle
Features (listed as percentage of live installs or based on availability)		
•Full support of ISBT 128 unit labeling	installed	installed
•Bar-code reading of donor and unit information	installed	installed
•Unit inventory	installed	installed
•Autologous and directed unit tracking	installed	installed
•Direct entry of test results	installed	installed
•Crossmatch results	installed	installed
•Electronic crossmatch decision making	installed	installed
•Antigen typing	installed	installed
•Handheld devices for positive patient ID	—	available through company's LIS
•Integrated bedside check for transfusion	—	available in 2009
•Track all steps in production of product	installed	installed
•Print donor unit labels—bar coded	installed	installed
•Interface with automated instruments	installed	installed
•Interface with blood irradiator or centrifuges	installed	installed
•Centralized transfusion service capability	—	available via third party
•Donor recruitment and management/donor questionnaire	installed/installed	available via third party/available via third party
•Mobile scheduling	installed	available via third party
•Laptop-based mobile donor registration module	installed	available via third party
•Source or recovered plasma management	installed	available via third party
•Accounts receivable	installed	available via third party
•Management reports/ad hoc report writer	installed/installed	installed/installed
•Quality control management/collection management	installed/installed	installed/available through company's LIS
System provides standard HL7 interface?	yes (version 2.x)	yes (version 2.2 and higher)
Interfaces to automated donor infectious disease testing instruments	uni- and bi-directional to Ortho, Immucor, Abbott, Olympus, DiaMed	—
Interfaces to automated ABO/Rh/antibody screening instruments	uni- and bi-directional to Ortho, Immucor, Abbott, Olympus, DiaMed	uni- and bi-directional to Ortho, Immucor, Olympus
FDA 510(k)-approved interface to bedside patient ID system?	—	no
Languages (other than English) offered on system	all languages (German, French, Arabic, Farsi, Finnish, Chinese, etc.)	—
Tools to help clients validate their systems	user guides, hazard analysis, training manuals, data conversion, IQ, PQ, OQ, risk analysis	validation services and guidelines available for purchase from recommended third parties
Complete blood bank ASP solution?	no	yes
Method of charging for ASP service	—	fixed fee, transaction based
Client software required	—	browser based, requires software be installed on a client PC
ASP information conduit	—	operates over the Internet, requires use of a VPN or other dedicated connection
Client contracts supported from data center not operated by client	—	0
How data center is operated	—	—
System provides indexed field in each test definition for LOINC code?	—	no
Provide LOINC dictionary for each new installation?	—	no
Information system interfaces	—	McKesson
User group?	yes (meets in person twice a year)	yes (meets in person annually)
Source code?	escrow	escrow
Can user modify screens?	no	no
User-defined report writer/custom programming?	—	yes/no
Cost for smallest & largest stand-alone HW/SW/install & training/monthly maintenance	—	—
Cost for smallest & largest integrated HW/SW/install & training/monthly maintenance	—	—
Distinguishing features (supplied by vendor)	<ul style="list-style-type: none"> • modules fully integrated from donor to patient • abundant functionality • highly customizable through parameters 	<ul style="list-style-type: none"> • numerous safety features, including Patient-At-A-Glance Bar • patented CTS feature as part of the "Method and System for Managing Blood Products" • Wyndgate's Service 360 commitment to ensure quality implementation and support experience
*other=sales, marketing, administration, other company functions		software for Horizon Blood Bank supplied by Wyndgate Technologies
Note: a dash in lieu of an answer means company did not answer question or question is not applicable		†from Wyndgate Technologies (software supplier)

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Part 5 of 10 See accompanying article on page 12	Medical Information Technology Paul Berthiaume pberthiaume@meditech.com Meditech Circle Westwood, MA 02090 781-821-3000 www.meditech.com	Medical Information Technology Paul Berthiaume pberthiaume@meditech.com Meditech Circle Westwood, MA 02090 781-821-3000 www.meditech.com
Name of blood bank system	Blood Bank System—Client/Server	Blood Bank System—Magic
First ever/most recent blood bank system installation	1981/June 2008	1981/February 2008
Last major product release (for product featured)	2008	2007
Total number of contracts for operational sites	267	410
•Contracts for U.S. hospitals with donor and transfusion service	—	—
•Contracts for U.S. hospitals with transfusion service only	—	—
•Contracts for U.S. regional blood centers with donor service only	—	—
•Contracts for U.S. regional blood centers with donor and transfusion service	—	—
•Contracts for centralized transfusion services in the U.S.	—	—
•Contracts for foreign hospitals and regional blood centers	—	—
•Contracts for other sites	—	—
Number of contracts signed between June 2007–June 2008	42	9
Total number of sites operational	253	413
Installs not yet live (hospitals/regional blood centers/others)	27 (27/0/0)	7 (7/0/0)
Number of sites that went live between June 2007–June 2008	—	—
Percentage of installations that are stand-alone systems	—	—
Staff to develop/install and support/other* in entire company	648/1,584/519	648/1,584/519
Staff to develop/install and support/other* in blood bank systems	18+/115+/6+	18+/115+/6+
Number of different versions of software installed	2	2
•Versions of product in field covered by FDA 510(k) clearance	Magic, client/server	Magic, client/server
•Versions of product that did not require FDA 510(k) clearance	0	0
Range in number of interactive workstations in live sites (average)	—	—
Central hardware or services type	Hewlett-Packard, Dell, EMC, IBM	Hewlett-Packard, Dell, EMC, IBM
Workstations or PC platform	Hewlett-Packard, Dell, EMC, IBM	Hewlett-Packard, Dell, EMC, IBM
Software programming language(s)	Magic	Magic
Operating system(s)	Windows 2000, XP (client), Windows 2000, 2003 (server)	Windows 2000, 2003, XP (client), Magic (server)
Databases and tools	Magic, SQL server 2005	Magic, SQL server 2005
Features (listed as percentage of live installs or based on availability)		
•Full support of ISBT 128 unit labeling	installed	100%
•Bar-code reading of donor and unit information	100%	100%
•Unit inventory	100%	100%
•Autologous and directed unit tracking	100%	100%
•Direct entry of test results	100%	100%
•Crossmatch results	100%	100%
•Electronic crossmatch decision making	not available	not available
•Antigen typing	installed	installed
•Handheld devices for positive patient ID	installed	installed
•Integrated bedside check for transfusion	installed	installed
•Track all steps in production of product	installed	100%
•Print donor unit labels—bar coded	installed	installed
•Interface with automated instruments	installed	installed
•Interface with blood irradiator or centrifuges	not available	not available
•Centralized transfusion service capability	installed	100%
•Donor recruitment and management/donor questionnaire	installed/installed	installed/installed
•Mobile scheduling	installed	installed
•Laptop-based mobile donor registration module	installed	installed
•Source or recovered plasma management	installed	installed
•Accounts receivable	installed	installed
•Management reports/ad hoc report writer	100%/100%	100%/100%
•Quality control management/collection management	installed/installed	installed/installed
System provides standard HL7 interface?	yes (version 2.4)	yes (version 2.4)
Interfaces to automated donor infectious disease testing instruments	—	—
Interfaces to automated ABO/Rh/antibody screening instruments	uni-directional to Ortho, Immucor	uni-directional to Ortho, Immucor
FDA 510(k)-approved interface to bedside patient ID system?	inherent in Meditech software	via Meditech
Languages (other than English) offered on system	Spanish in progress	Spanish in progress
Tools to help clients validate their systems	comprehensive user manual that is reviewed with customers during training	comprehensive user manual that is reviewed with customers during training
Complete blood bank ASP solution?	no	no
Method of charging for ASP service	—	—
Client software required	—	—
ASP information conduit	—	—
Client contracts supported from data center not operated by client	—	—
How data center is operated	—	—
System provides indexed field in each test definition for LOINC code?	yes	yes
Provide LOINC dictionary for each new installation?	no	no
Information system interfaces	Cerner, Siemens, McKesson, others	Cerner, Siemens, McKesson, others
User group?	yes (meets via Internet and in person)	yes (meets via Internet and in person)
Source code?	yes	yes
Can user modify screens?	yes	yes
User-defined report writer/custom programming?	yes/no	yes/no
Cost for smallest & largest stand-alone HW/SW/install & training/monthly maintenance	—	—
Cost for smallest & largest integrated HW/SW/install & training/monthly maintenance	—	—
Distinguishing features (supplied by vendor)	<ul style="list-style-type: none"> • over 38 years' experience developing and implementing LISs • seamless exchange of data across departments and facilities regardless of care setting • software developed 100% by in-house staff 	<ul style="list-style-type: none"> • over 38 years' experience developing and implementing LISs • seamless exchange of data across departments and facilities regardless of care setting • software developed 100% by in-house staff
*other=sales, marketing, administration, other company functions		
Note: a dash in lieu of an answer means company did not answer question or question is not applicable		

Blood bank information systems

Part 6 of 10	Mediware Information Systems Steve Sedlock steve.sedlock@mediware.com 1900 Spring Rd., Suite 450 Oak Brook, IL 60523 630-218-2700 www.mediware.com	Mediware Information Systems Steve Sedlock steve.sedlock@mediware.com 1900 Spring Rd., Suite 450 Oak Brook, IL 60523 630-218-2700 www.mediware.com
See accompanying article on page 12		
Name of blood bank system	HCLL Transfusion and Donor	LifeTrak
First ever/most recent blood bank system installation	1980/2008	1980/2008
Last major product release (for product featured)	2007	2008
Total number of contracts for operational sites	99	12
•Contracts for U.S. hospitals with donor and transfusion service	2	5
•Contracts for U.S. hospitals with transfusion service only	68	0
•Contracts for U.S. regional blood centers with donor service only	5	2
•Contracts for U.S. regional blood centers with donor and transfusion service	2	2
•Contracts for centralized transfusion services in the U.S.	20	2
•Contracts for foreign hospitals and regional blood centers	2	0
•Contracts for other sites	0	1 (donor testing)
Number of contracts signed between June 2007–June 2008	17	2
Total number of sites operational	206	72
Installs not yet live (hospitals/regional blood centers/others)	106 (79/27/0)	2 (1/1/0)
Number of sites that went live between June 2007–June 2008	94	—
Percentage of installations that are stand-alone systems	85%	57%
Staff to develop/install and support/other* in entire company	43/80/54	43/80/54
Staff to develop/install and support/other* in blood bank systems	27/57/16	27/57/16
Number of different versions of software installed	8	7
•Versions of product in field covered by FDA 510(k) clearance	0	2.03, 3.02
•Versions of product that did not require FDA 510(k) clearance	HCLL 2.9.1, 2.9.2, 2.9.3, 2.9.4; Donor 1.1.1, 1.1.2, 1.1.3, 1.1.4	3.01, 3.1, 3.1.1, 3.1.2, 3.2
Range in number of interactive workstations in live sites (average)	2–50 (average, 8)	7–300 (average, 100)
Central hardware or services type	Microsoft compatible	Intel-based server (Linux), HP-UX
Workstations or PC platform	Microsoft compatible	Microsoft compatible
Software programming language(s)	Visual Basic, C ++ Com, Microsoft .Net, C++	Oracle forms and reports, Pro*C
Operating system(s)	Windows XP, 2000, 2003	HP-UX, Linux AS
Databases and tools	Microsoft SQL 2000, 2005	Oracle
Features (listed as percentage of live installs or based on availability)		
•Full support of ISBT 128 unit labeling	installed	installed
•Bar-code reading of donor and unit information	installed	installed
•Unit inventory	installed	installed
•Autologous and directed unit tracking	installed	installed
•Direct entry of test results	installed	installed
•Crossmatch results	installed	—
•Electronic crossmatch decision making	installed	—
•Antigen typing	installed	installed
•Handheld devices for positive patient ID	available but not installed	—
•Integrated bedside check for transfusion	available but not installed	—
•Track all steps in production of product	installed	installed
•Print donor unit labels—bar coded	installed	installed
•Interface with automated instruments	installed	installed
•Interface with blood irradiator or centrifuges	not available	installed
•Centralized transfusion service capability	installed	—
•Donor recruitment and management/donor questionnaire	installed/not available	installed/installed
•Mobile scheduling	not available	installed
•Laptop-based mobile donor registration module	installed	installed
•Source or recovered plasma management	not available	installed
•Accounts receivable	installed	—
•Management reports/ad hoc report writer	installed/installed	installed/installed
•Quality control management/collection management	installed/installed	installed/installed
System provides standard HL7 interface?	yes (versions 2.3–2.5)	yes (versions 2.03 and above)
Interfaces to automated donor infectious disease testing instruments	—	uni-directional to Ortho, Immucor, Abbott, Olympus, DiaMed, others
Interfaces to automated ABO/Rh/antibody screening instruments	uni-directional to Ortho, Immucor, Biotest	uni-directional to Ortho, Immucor, Olympus, DiaMed, Biotest
FDA 510(k)-approved interface to bedside patient ID system?	via Mediware BloodSafe TX	no
Languages (other than English) offered on system	none	—
Tools to help clients validate their systems	validation scripts	release notes
Complete blood bank ASP solution?	no	no
Method of charging for ASP service	—	—
Client software required	—	—
ASP information conduit	—	—
Client contracts supported from data center not operated by client	—	—
How data center is operated	—	—
System provides indexed field in each test definition for LOINC code?	no	no
Provide LOINC dictionary for each new installation?	no	no
Information system interfaces	to HL7-compliant systems	Cerner via HL7
User group?	yes (meets via Internet quarterly; in person annually)	yes (meets in person annually)
Source code?	escrow	escrow
Can user modify screens?	yes	—
User-defined report writer/custom programming?	yes/no	no/no
Cost for smallest & largest stand-alone HW/SW/install & training/monthly maintenance	\$30.774k/\$58k/\$71.26k/\$1.221k to \$35.789k/\$150k/\$72.99k/\$2.908k	\$15k/\$75k/—/\$2.085k to \$250k/\$400k/—/\$35.415k
Cost for smallest & largest integrated HW/SW/install & training/monthly maintenance	\$41.742k/\$70k/\$82.335k/\$1.625k to \$46.757k/\$162k/\$84.065k/—	—
Distinguishing features (supplied by vendor)	<ul style="list-style-type: none"> • support every step of the blood management process, from recruitment to final disposition • new Biologicare software allows the tracking of tissues and bones from when they are received to final disposition • 25-year+ proven track record with solutions designed by blood bankers for blood bankers 	<ul style="list-style-type: none"> • support every step of the blood management process, from recruitment to final disposition • new Biologicare software allows the tracking of tissues and bones from when they are received to final disposition • 25-year+ proven track record with solutions designed by blood bankers for blood bankers
*other=sales, marketing, administration, other company functions		
<i>Note: a dash in lieu of an answer means company did not answer question or question is not applicable</i>		

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Blood bank information systems

Part 7 of 10	NetLims LLC Avi Allerhand avi@netlims.com 111 Town Square Place, Suite 700 Jersey City, NJ 07310 201-894-5300 www.netlims.com	Psyche Systems Corp. Rachel Stratman sales@psychesystems.com 321 Fortune Blvd. Milford, MA 01757 800-345-1514 www.psychesystems.com
See accompanying article on page 12		
Name of blood bank system	AutoFusion	Systematic Blood Bank
First ever/most recent blood bank system installation	2002/—	1987/April 2008
Last major product release (for product featured)	January 2007	2001
Total number of contracts for operational sites	3	16
•Contracts for U.S. hospitals with donor and transfusion service	0	0
•Contracts for U.S. hospitals with transfusion service only	0	16
•Contracts for U.S. regional blood centers with donor service only	0	0
•Contracts for U.S. regional blood centers with donor and transfusion service	0	0
•Contracts for centralized transfusion services in the U.S.	0	0
•Contracts for foreign hospitals and regional blood centers	3	0
•Contracts for other sites	0	0
Number of contracts signed between June 2007–June 2008	3	4
Total number of sites operational	24	11
Installs not yet live (hospitals/regional blood centers/others)	8	5 (5/0/0)
Number of sites that went live between June 2007–June 2008	—	3
Percentage of installations that are stand-alone systems	4%	75%
Staff to develop/install and support/other* in entire company	55/37/13	13/16/12
Staff to develop/install and support/other* in blood bank systems	6/5/3	3/5/2
Number of different versions of software installed	3	1
•Versions of product in field covered by FDA 510(k) clearance	AutoFusion 3.02	Systematic Blood Bank 3.0
•Versions of product that did not require FDA 510(k) clearance	—	0
Range in number of interactive workstations in live sites (average)	8–37 (average, 22)	1–100 (average, 13)
Central hardware or services type	Wintel (HP, IBM, Dell)	hosted/Web deployed
Workstations or PC platform	Wintel (HP, IBM, Dell)	PCs
Software programming language(s)	C++	Visual Basic, Fortran
Operating system(s)	Windows	any
Databases and tools	Microsoft SQL, Oracle	proprietary
Features (listed as percentage of live installs or based on availability)		
•Full support of ISBT 128 unit labeling	100%	100%
•Bar-code reading of donor and unit information	100%	100%
•Unit inventory	100%	100%
•Autologous and directed unit tracking	60%	100%
•Direct entry of test results	100%	100%
•Crossmatch results	100%	100%
•Electronic crossmatch decision making	80%	100%
•Antigen typing	100%	100%
•Handheld devices for positive patient ID	not available	available but not installed
•Integrated bedside check for transfusion	not available	available but not installed
•Track all steps in production of product	100%	100%
•Print donor unit labels—bar coded	50%	not available
•Interface with automated instruments	100%	10%
•Interface with blood irradiator or centrifuges	80%	not available
•Centralized transfusion service capability	100%	100%
•Donor recruitment and management/donor questionnaire	50%/50%	not available/not available
•Mobile scheduling	not available	not available
•Laptop-based mobile donor registration module	not available	not available
•Source or recovered plasma management	80%	not available
•Accounts receivable	available but not installed	not available
•Management reports/ad hoc report writer	100%/50%	100%/100%
•Quality control management/collection management	80%/100%	100%/not available
System provides standard HL7 interface?	yes (version 2.3)	yes (version 2.3.1)
Interfaces to automated donor infectious disease testing instruments	bi-directional to Abbott, Olympus	—
Interfaces to automated ABO/Rh/antibody screening instruments	uni-directional to Wadiana; bi-directional to Olympus	uni-directional to Immucor
FDA 510(k)-approved interface to bedside patient ID system?	no	no
Languages (other than English) offered on system	—	—
Tools to help clients validate their systems	full software testing document for validation	software validation guidelines
Complete blood bank ASP solution?	no	yes
Method of charging for ASP service	—	fixed fee
Client software required	—	browser based, requires software be installed on a client PC
ASP information conduit	—	operates over the Internet
Client contracts supported from data center not operated by client	—	—
How data center is operated	—	by vendor
System provides indexed field in each test definition for LOINC code?	yes	no
Provide LOINC dictionary for each new installation?	no	no
Information system interfaces	to HL7-compliant systems	CPSI, Psyche Systems, Meditech, Siemens, McKesson, Cerner, Misys, others
User group?	no	yes (meets via Internet periodically; in person bi-annually)
Source code?	escrow	escrow
Can user modify screens?	yes	—
User-defined report writer/custom programming?	yes/yes	yes/no
Cost for smallest & largest stand-alone HW/SW/install & training/monthly maintenance	\$150k–\$450k (for software)	\$0/\$10k/\$2.5k/\$.2k to \$1k/\$40k/\$5k/\$.8k
Cost for smallest & largest integrated HW/SW/install & training/monthly maintenance	\$125k–\$375k (for software)	\$0/\$30k/\$10k/\$.6k to \$5k/\$70k/\$15k/\$1.5k
Distinguishing features (supplied by vendor)	<ul style="list-style-type: none"> • full integration with all other lab modules and free choice of database on same database • highly customizable and open system on all levels • unique user interface to provide unparalleled ease of use and safety 	<ul style="list-style-type: none"> • complete, affordable blood bank system for the small to mid-size blood bank • flexible and easy to use • securely hosted, Web-deployed system that requires no additional hardware investment
*other=sales, marketing, administration, other company functions		
Note: a dash in lieu of an answer means company did not answer question or question is not applicable		

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Blood bank information systems

Name of blood bank system	SoftBank II	SoftDonor
Part 8 of 10	SGC Soft Computer Ellie Vahman ellie@softcomputer.com 5400 Tech Data Drive Clearwater, FL 33760 727-789-0100 www.softcomputer.com	SGC Soft Computer Ellie Vahman ellie@softcomputer.com 5400 Tech Data Drive Clearwater, FL 33760 727-789-0100 www.softcomputer.com
See accompanying article on page 12		
First ever/most recent blood bank system installation	1992/June 2008	1992/May 2008
Last major product release (for product featured)	May 2008	—
Total number of contracts for operational sites	169	11
•Contracts for U.S. hospitals with donor and transfusion service	13	10
•Contracts for U.S. hospitals with transfusion service only	146	0
•Contracts for U.S. regional blood centers with donor service only	5	0
•Contracts for U.S. regional blood centers with donor and transfusion service	0	0
•Contracts for centralized transfusion services in the U.S.	0	0
•Contracts for foreign hospitals and regional blood centers	5	1
•Contracts for other sites	0	0
Number of contracts signed between June 2007–June 2008	7	3
Total number of sites operational	223	24
Installs not yet live (hospitals/regional blood centers/others)	27 (27/0/0)	5 (5/0/0)
Number of sites that went live between June 2007–June 2008	17	3
Percentage of installations that are stand-alone systems	3%	0
Staff to develop/install and support/other* in entire company	725/304/224	725/304/224
Staff to develop/install and support/other* in blood bank systems	32/20/15	32/20/15
Number of different versions of software installed	6	2
•Versions of product in field covered by FDA 510(k) clearance	19.1, 21, 22, 23, 23 with SoftScape, 23.1 with DMSI (Oracle)	4.3, 4.4
•Versions of product that did not require FDA 510(k) clearance	0	0
Range in number of interactive workstations in live sites (average)	1–90+ (average, 8)	3–8 (average, 8)
Central hardware or services type	IBM pSeries	IBM pSeries
Workstations or PC platform	PC	PC
Software programming language(s)	C, C++, .Net	C, C++, .Net
Operating system(s)	IBM AIX (Unix)	IBM AIX (Unix)
Databases and tools	RDM, Oracle	RDM, Oracle
Features (listed as percentage of live installs or based on availability)		
•Full support of ISBT 128 unit labeling	70%	installed
•Bar-code reading of donor and unit information	100%	100%
•Unit inventory	100%	100%
•Autologous and directed unit tracking	100%	100%
•Direct entry of test results	100%	100%
•Crossmatch results	100%	available via SoftBank
•Electronic crossmatch decision making	70%	available via SoftBank
•Antigen typing	100%	100%
•Handheld devices for positive patient ID	available via SoftID	available via SoftID
•Integrated bedside check for transfusion	available fourth quarter 2008	available via SoftBank
•Track all steps in production of product	100% (component productions)	100%
•Print donor unit labels—bar coded	30% (component labels)	100%
•Interface with automated instruments	10%	100%
•Interface with blood irradiator or centrifuges	available fourth quarter 2008	available via SoftBank
•Centralized transfusion service capability	10%	available via SoftBank
•Donor recruitment and management/donor questionnaire	available via SoftDonor (both features)	100%/100%
•Mobile scheduling	available via SoftDonor	50%
•Laptop-based mobile donor registration module	available via SoftDonor	90%
•Source or recovered plasma management	20%	100%
•Accounts receivable	95%	100%
•Management reports/ad hoc report writer	100%/100%	100%/100%
•Quality control management/collection management	95%/100% (specimen collection)	50%/100%
System provides standard HL7 interface?	yes (versions 2–2.7)	yes (versions 2–2.7)
Interfaces to automated donor infectious disease testing instruments	—	bi-directional to Abbott
Interfaces to automated ABO/Rh/antibody screening instruments	uni- and bi-directional to Ortho, Immucor	—
FDA 510(k)-approved interface to bedside patient ID system?	no	no
Languages (other than English) offered on system	French	—
Tools to help clients validate their systems	critical control points and instructions on how to write test cases with electronic screen capture	critical points and instructions on how to write test cases with electronic screen capture
Complete blood bank ASP solution?	yes	yes
Method of charging for ASP service	fixed fee	fixed fee
Client software required	requires software be installed on a client PC	requires software be installed on a client PC
ASP information conduit	operates over the Internet	operates over the Internet
Client contracts supported from data center not operated by client	1	0
How data center is operated	by vendor	by vendor
System provides indexed field in each test definition for LOINC code?	no	no
Provide LOINC dictionary for each new installation?	no	no
Information system interfaces	Meditech, McKesson, Siemens, IDX, Cerner, CPSI, QuadraMed, Epic, Eclipsys, others	Meditech, McKesson, Siemens, IDX, Cerner, CPSI, QuadraMed, Epic, Eclipsys, others
User group?	yes (meets in person annually)	yes (meets in person annually)
Source code?	escrow	escrow
Can user modify screens?	no	no
User-defined report writer/custom programming?	yes/yes	yes/yes
Cost for smallest & largest stand-alone HW/SW/install & training/monthly maintenance	\$25k/\$30k/\$50k/\$.45k to \$50k/\$125k/\$80k/\$1.875k	\$25k/\$30k/\$50k/\$.45k to \$50k/\$125k/\$80k/\$1.875k
Cost for smallest & largest integrated HW/SW/install & training/monthly maintenance	\$40k/\$215k/\$150k/\$4.59k to \$400k/\$2.5m/\$1.1m/\$35k	\$40k/\$215k/\$150k/\$4.59k to \$400k/\$2.5m/\$1.1m/\$35k
Distinguishing features (supplied by vendor)	<ul style="list-style-type: none"> • system warns user of inconsistencies, errors, omissions and presents user with an exception to describe problem before user can proceed; exception sent to manager for review • user-definable worksheet allows for the resulting of patient, unit, and crossmatch tests in a batch mode • emergency issue feature combines select and issue tasks to provide blood products in a time-saving manner during emergency or trauma situations 	<ul style="list-style-type: none"> • powerful, user-defined test algorithms can automatically order required repeat tests and confirmatory tests • detailed donor database search capability increases effectiveness of targeted recruiting efforts, including search by antigen profile • all significant steps in donation process are documented, including history review, questionnaire, physical exam, phlebotomy
*other=sales, marketing, administration, other company functions		
<i>Note: a dash in lieu of an answer means company did not answer question or question is not applicable</i>		

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Blood bank information systems

Part 9 of 10	Sunquest Information Systems Sylvia Rothrock sylvia.rothrock@sunquestinfo.com 250 S. Williams Blvd. Tucson, AZ 85711 877-239-6337 www.sunquestinfo.com	Wyndgate Technologies Scott Dustin dustins@wyndgate.com 4925 Robert J Mathews Parkway, Suite 100 El Dorado Hills, CA 95762 916-404-8400 www.wyndgate.com
See accompanying article on page 12		
Name of blood bank system	Sunquest Laboratory Blood Bank and Blood Donor modules [†]	EIDorado Donor
First ever/most recent blood bank system installation	1985/2008	1996/—
Last major product release (for product featured)	2007	February 2008
Total number of contracts for operational sites	344	0 (received FDA 510[k] clearance in February)
•Contracts for U.S. hospitals with donor and transfusion service	37	—
•Contracts for U.S. hospitals with transfusion service only	294	—
•Contracts for U.S. regional blood centers with donor service only	0	—
•Contracts for U.S. regional blood centers with donor and transfusion service	0	—
•Contracts for centralized transfusion services in the U.S.	0	—
•Contracts for foreign hospitals and regional blood centers	13	—
•Contracts for other sites	0	—
Number of contracts signed between June 2007–June 2008	7	1
Total number of sites operational	400+	—
Installs not yet live (hospitals/regional blood centers/others)	9 (9/0/0)	1 (1/0/0)
Number of sites that went live between June 2007–June 2008	6	—
Percentage of installations that are stand-alone systems	0	—
Staff to develop/install and support/other* in entire company	305/256/113	43/70/73
Staff to develop/install and support/other* in blood bank systems	—	34/61/48
Number of different versions of software installed	2	1
•Versions of product in field covered by FDA 510(k) clearance	Blood Bank and Blood Donor v6.0.1 distributed with Laboratory v6.1, v6.2	EIDorado Donor
•Versions of product that did not require FDA 510(k) clearance	Blood Bank and Blood Donor v6.0.2 distributed with Laboratory v6.3	0
Range in number of interactive workstations in live sites (average)	5+–100+ (average, 20)	—
Central hardware or services type	IBM pSeries, HP Integrity	Windows
Workstations or PC platform	Dell, HP Windows	Windows
Software programming language(s)	ANSI Standard M, Caché Script, Standard C/C++, Visual Basic, Visual C++, Active X	C++
Operating system(s)	AIX, HP UX, OpenVMS	Windows
Databases and tools	InterSystems Caché	Oracle
Features (listed as percentage of live installs or based on availability)		
•Full support of ISBT 128 unit labeling	100%	available but not installed
•Bar-code reading of donor and unit information	100%	available but not installed
•Unit inventory	100%	available but not installed
•Autologous and directed unit tracking	100%	available but not installed
•Direct entry of test results	100%	available but not installed
•Crossmatch results	100%	available via SafeTrace Tx
•Electronic crossmatch decision making	10%	available via SafeTrace Tx
•Antigen typing	100%	available but not installed
•Handheld devices for positive patient ID	22%	—
•Integrated bedside check for transfusion	available in 2008 (pending FDA 510[k] clearance)	—
•Track all steps in production of product	100%	available but not installed
•Print donor unit labels—bar coded	11%	available but not installed
•Interface with automated instruments	13%	not available
•Interface with blood irradiator or centrifuges	not available	not available
•Centralized transfusion service capability	100%	—
•Donor recruitment and management/donor questionnaire	15%/not available	available via third party/available via EIDorado Donor Doc
•Mobile scheduling	not available	available via third party
•Laptop-based mobile donor registration module	not available	not available
•Source or recovered plasma management	installed	not available
•Accounts receivable	100% (charge capture)	available via third party
•Management reports/ad hoc report writer	100%/100%	available but not installed/not available
•Quality control management/collection management	100%/installed	available but not installed/available but not installed
System provides standard HL7 interface?	yes (versions 2.3–3.0)	—
Interfaces to automated donor infectious disease testing instruments	uni-directional to Ortho, Immucor, Abbott, Olympus, DiaMed; bi-directional to Ortho	—
Interfaces to automated ABO/Rh/antibody screening instruments	uni-directional to Ortho, Immucor, Abbott, Olympus, DiaMed; bi-directional to Ortho	—
FDA 510(k)-approved interface to bedside patient ID system?	no (pending FDA 510[k] clearance)	no
Languages (other than English) offered on system	none	none
Tools to help clients validate their systems	client testing guidelines, documentation, training and consulting services	validation templates and validation test plan for safety critical control checks
Complete blood bank ASP solution?	no	yes
Method of charging for ASP service	—	fixed fee, transaction based
Client software required	—	—
ASP information conduit	—	operates over the Internet, requires use of a VPN or other dedicated connection
Client contracts supported from data center not operated by client	—	0
How data center is operated	—	by a third party (Hemo-Net)
System provides indexed field in each test definition for LOINC code?	no	no
Provide LOINC dictionary for each new installation?	no	no
Information system interfaces	Epic, McKesson, Meditech, Siemens, Eclipsys, Cerner, GE, others	none
User group?	yes (meets via Internet quarterly; in person quarterly)	yes (meets via Internet; in person annually)
Source code?	escrow	escrow
Can user modify screens?	no	no
User-defined report writer/custom programming?	yes/yes	no/yes
Cost for smallest & largest stand-alone HW/SW/install & training/monthly maintenance	\$70k/\$208k/\$100k/18% for SW ^{††} to \$180k/\$908k/\$180k/18% for SW ^{††}	—
Cost for smallest & largest integrated HW/SW/install & training/monthly maintenance	\$0 ^{†††} /\$50k/\$58k/18% for SW ^{††} to \$0 ^{†††} /\$790k/\$77k/18% for SW ^{††}	—
Distinguishing features (supplied by vendor)	<ul style="list-style-type: none"> • full integration with LIS for reporting, inquiry, maintenance, and QA • full multi-facility capability, incl. unit inventory tracking, management • service and interoperability excellence 	<ul style="list-style-type: none"> • extensive safety checks throughout system with an outstanding commitment to compliance • open workflow and extensive user-defined, table-based rules • Service 360 commitment to ensure quality implementation and support experience
*other=sales, marketing, administration, other company functions	[†] company did not indicate whether answers apply to both or one of the modules	
Note: a dash in lieu of an answer means company did not answer question or question is not applicable	^{††} hardware varies	
	^{†††} with purchase of Sunquest Laboratory	

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Blood bank information systems

Part 10 of 10	Wyndgate Technologies Scott Dustin dustins@wyndgate.com 4925 Robert J Mathews Parkway, Suite 100 El Dorado Hills, CA 95762 916-404-8400 www.wyndgate.com	Wyndgate Technologies Scott Dustin dustins@wyndgate.com 4925 Robert J Mathews Parkway, Suite 100 El Dorado Hills, CA 95762 916-404-8400 www.wyndgate.com
See accompanying article on page 12		
Name of blood bank system	SafeTrace	SafeTrace Tx
First ever/most recent blood bank system installation	1996/May 2008	1996/June 2008
Last major product release (for product featured)	February 2006	June 2006
Total number of contracts for operational sites	56	247
•Contracts for U.S. hospitals with donor and transfusion service	15	15 [†]
•Contracts for U.S. hospitals with transfusion service only	0	213 [†]
•Contracts for U.S. regional blood centers with donor service only	23	—
•Contracts for U.S. regional blood centers with donor and transfusion service	9	9 [†]
•Contracts for centralized transfusion services in the U.S.	0	19 [†]
•Contracts for foreign hospitals and regional blood centers	5	7 [†]
•Contracts for other sites	4 (hospital donor services)	0
Number of contracts signed between June 2007–June 2008	3	30
Total number of sites operational	261	257
Installs not yet live (hospitals/regional blood centers/others)	9 (3/5/1)	100 (95/2/3)
Number of sites that went live between June 2007–June 2008	13	55
Percentage of installations that are stand-alone systems	—	—
Staff to develop/install and support/other* in entire company	43/70/73	43/70/73
Staff to develop/install and support/other* in blood bank systems	34/61/48	34/61/48
Number of different versions of software installed	—	—
•Versions of product in field covered by FDA 510(k) clearance	—	—
•Versions of product that did not require FDA 510(k) clearance	—	—
Range in number of interactive workstations in live sites (average)	—	1–105 (average, 6+)
Central hardware or services type	Unix-based servers, Sun, HP, IBM	Intel- and Unix-based servers
Workstations or PC platform	PCs	PCs
Software programming language(s)	Delphi, PL/SQL, .Net, C, 4GL	Delphi, SQL, Crystal Reports
Operating system(s)	Unix	Windows XP Professional, Windows 2003 (Unix optional)
Databases and tools	Oracle	Oracle
Features (listed as percentage of live installs or based on availability)		
•Full support of ISBT 128 unit labeling	100%	100%
•Bar-code reading of donor and unit information	100%	100%
•Unit inventory	100%	100%
•Autologous and directed unit tracking	100%	100%
•Direct entry of test results	100%	100%
•Crossmatch results	available via SafeTrace Tx	100%
•Electronic crossmatch decision making	available via SafeTrace Tx	45%
•Antigen typing	100%	100%
•Handheld devices for positive patient ID	—	available through business partners
•Integrated bedside check for transfusion	—	available through business partners
•Track all steps in production of product	100%	100%
•Print donor unit labels—bar coded	100%	installed
•Interface with automated instruments	100%	20%
•Interface with blood irradiator or centrifuges	not available	installed
•Centralized transfusion service capability	—	100%
•Donor recruitment and management/donor questionnaire	100%/available via ElDorado Donor Doc	—/available via ElDorado Donor Doc
•Mobile scheduling	100%	available via SafeTrace
•Laptop-based mobile donor registration module	installed	available via SafeTrace
•Source or recovered plasma management	100%	available via SafeTrace
•Accounts receivable	available via third party	not available
•Management reports/ad hoc report writer	100%/100%	100%/installed
•Quality control management/collection management	not available/100%	installed/—
System provides standard HL7 interface?	no	yes (versions 2.1, 2.2, 2.3)
Interfaces to automated donor infectious disease testing instruments	uni-directional to Ortho, Immucor, Abbott, Olympus, DiaMed, Hitachi; bi-directional to Gambro	—
Interfaces to automated ABO/Rh/antibody screening instruments	uni-directional to Ortho, Immucor, Olympus	uni- and bi-directional to Ortho, Immucor
FDA 510(k)-approved interface to bedside patient ID system?	no	no
Languages (other than English) offered on system	—	—
Tools to help clients validate their systems	validation guidelines, templates, and validation test plan for safety critical control checks	validation guidelines, templates, and validation test plan for safety critical control checks
Complete blood bank ASP solution?	yes	yes
Method of charging for ASP service	fixed fee, transaction based	fixed fee, transaction based
Client software required	browser based	browser based
ASP information conduit	operates over the Internet, requires use of a VPN or other dedicated connection	operates over the Internet, requires use of a VPN or other dedicated connection
Client contracts supported from data center not operated by client	9	3
How data center is operated	by a third party (Hemo-Net)	by a third party (Hemo-Net)
System provides indexed field in each test definition for LOINC code?	no	no
Provide LOINC dictionary for each new installation?	no	no
Information system interfaces	SafeTrace Tx	McKesson, Cerner, Siemens, GE, CPSI, Meditech, Keane, IDX, SCC, CIS, TDS, Aspyra, Sysmex, Misys, Orchard, Meditech, Quality Software Systems, others
User group?	yes (meets via Internet; in person annually)	yes (meets via Internet; in person annually)
Source code?	escrow	escrow
Can user modify screens?	no	no
User-defined report writer/custom programming?	yes/yes	yes/yes
Cost for smallest & largest stand-alone HW/SW/install & training/monthly maintenance	—	—
Cost for smallest & largest integrated HW/SW/install & training/monthly maintenance	—	—
Distinguishing features (supplied by vendor)	<ul style="list-style-type: none"> extensive safety checks throughout system with an outstanding commitment to compliance open workflow and extensive user-defined, table-based rules Service 360 commitment to ensure quality implementation and support experience 	<ul style="list-style-type: none"> extensive safety checks throughout system with an outstanding commitment to compliance open workflow and extensive user-defined, table-based rules Service 360 commitment to ensure quality implementation and support experience
*other=sales, marketing, administration, other company functions		
Note: a dash in lieu of an answer means company did not answer question or question is not applicable		[†] breakdown reflects contracts that fit more than one category