

Part 1 of 11	<b>Allscripts</b> <b>Susan Eben</b> susan.eben@allscripts.com <b>Alpharetta, GA</b> <b>404-863-0611</b> www.allscripts.com	<b>American Soft Solutions Corp.</b> <b>Shauhab Chaudhry</b> shauhab@prolis.info <b>Morganville, NJ</b> <b>732-272-0052</b> www.prolis.info	<b>Aspyra LLC</b> <b>Gary Bennett</b> gbennett@aspyra.com <b>Jacksonville, FL</b> <b>800-437-9000</b> www.aspyra.com
See <a href="http://captodayonline.com/productguides">captodayonline.com/productguides</a> for an interactive version of guide			
Name of laboratory information system	Allscripts Lab <sup>†</sup>	Prolis	CyberLAB
First ever*/Most recent LIS installation (based on August 2018 survey deadline)	1972/August 2018	1999/August 2018	1982/July 2018
Total No. of contracts for sites operating LIS	75	43	69
No. of sales of LIS between August 2017–August 2018	4	8	2
Total No. of sites operating LIS (U.S. hospitals/U.S. independent labs/U.S. clinics or group practices/U.S. public health labs/other U.S. sites/foreign sites)	187 (180/4/0/0/3)	18 (0/16/0/0/2)	298
• Types/Locations of foreign installations	—/Canada, Saudi Arabia	independent labs/Ghana	—
No. of LIS installations between August 2017–August 2018	4	8	2
Percentage of high-volume** sites installed/Low-volume*** sites installed	85%/15%	55%/45%	38%/62%
Percentage of sites where company has no other software installed	10%	90%	70%
Foreign countries where company actively markets LIS	none	none	Asia, Caribbean
Provide list of installed client sites to potential customers on request	yes (partial list of comparable sites)	yes (with client's permission)	yes (partial list of comparable sites)
Clients restricted from sharing their experience with company or LIS	no	no	no
No. of employees in entire company	8,000	9	26
• No. of employees dedicated to LIS development, installation, and support	35	7	14
Range in No. of user workstations in sites operating LIS	10–1,000 (average, 60)	3–64 (average, 15)	2–148 (average, 75)
Central hardware or service type	Hewlett-Packard, IBM, Dell	Windows, SQL server	client hosted or cloud hosted
How central server failure is handled	manual intervention necessary to restore operation or system continues uninterrupted (user's option)	manual intervention necessary to restore operation or system continues uninterrupted (user's option)	manual intervention necessary to restore operation or system continues uninterrupted (user's option)
Programming language(s)	Object Pascal, C, C#, Java, Perl	Visual Basic .Net	C++, Visual Basic, HTML5, Cobol
Operating system(s)	Windows, Red Hat Enterprise Linux, Oracle Linux	Windows	Microsoft Windows
Databases and tools	Oracle	SQL server	Microsoft SQL
System includes full transaction logging	yes	yes	yes
Languages (other than English) offered on system	none	none	Chinese and Vietnamese (for results reporting only)
Features/modules incorporated in product:			
• Chemistry/Hematology	installed at client sites/installed at client sites	installed at client sites/installed at client sites	installed at client sites/installed at client sites
• Bar-coded collection labels	installed at client sites	installed at client sites	installed at client sites
• Microbiology/Public health microbiology	installed at client sites/installed at client sites	installed at client sites/installed at client sites	installed at client sites/installed at client sites
• Blood bank donor/Blood bank transfusion	not available/not available	under development/under development	not available/not available
• Surgical pathology/Cytology	not available/not available	installed at client sites/installed at client sites	installed at client sites/installed at client sites
• Molecular pathology/Cytogenetics/Flow cytometry	not available/not available/not available	installed at client sites/installed at client sites/installed at client sites	installed at client sites/installed at client sites/installed at client sites
• EHR interface for admission/discharge/transfer (ADT)	installed at client sites	installed at client sites	installed at client sites
• EHR interface for order entry/EHR interface for results reporting	installed at client sites/installed at client sites	installed at client sites/installed at client sites	installed at client sites/installed at client sites
• EHR interface for packaging results into PDF format	not available	installed at client sites	installed at client sites
• EHR interface for packaging results into CDA1 format/CDA2 format	not available/not available	installed at client sites/installed at client sites	installed at client sites/installed at client sites
• Ad hoc reporting/Rules-based system	installed at client sites/installed at client sites	installed at client sites/installed at client sites	installed at client sites/installed at client sites
• Management and statistical reporting	installed at client sites	installed at client sites	installed at client sites
• Connection to provider offices/Commercial lab functionality	installed at client sites/installed at client sites	installed at client sites/installed at client sites	installed at client sites/installed at client sites
• Compliance checking	not available	installed at client sites	installed at client sites
• Billing and accounts receivable	not available	installed at client sites	not available
• Materials management and inventory	not available	not available	under development
• Test partition/Remote faxing or printing	installed at client sites/installed at client sites	not available/installed at client sites	installed at client sites/installed at client sites
• HIPAA-standard transaction formats	installed at client sites	installed at client sites	installed at client sites
• Web-based remote inquiry of reports/Web access for order entry	installed at client sites/installed at client sites	installed at client sites/installed at client sites	installed at client sites/installed at client sites
• Specimen management and tracking	installed at client sites	not available	under development
• Compliance and quality assurance tools	installed at client sites	installed at client sites	installed at client sites
• Environmental health/Business analytics	installed at client sites/not available	installed at client sites/installed at client sites	installed at client sites/installed at client sites
• Reference lab interface for orders, results return, status return	installed at client sites	installed at client sites	installed at client sites
LIS can report lab data that is focus of meaningful use guidelines to public health agencies via automated electronic transmission using specified formats**** for:			
• Microbiology data (culture and sensitivity)	yes	yes	yes
• Other reportable diseases (blood lead, immunology, etc.)	yes	yes	yes
• Tumor diagnosis and case data to regional cancer registry*****	no	yes	under development
LIS provides database flag or field to set time parameters for retaining test results online without being archived?	system does not archive (all test results retained online indefinitely but can be purged)	yes (HIV, TB, hepatitis, and genetic test results can be retained online [not archived] for the life of LIS)	yes (all test results can be retained online [not archived] for the life of LIS)
• How test results retained online are made available	query, reports	query, reports	query, reports
Lab automation systems or workcells to which LIS has a direct interface	Beckman Coulter, Siemens, Ortho, Labotix Automation, Thermo Scientific, Olympus, Roche, Abbott, m-u-t America, Sarstedt, Yaskawa	none (planned for future)	Beckman Coulter, Siemens, Ortho Clinical Diagnostics, Roche, Abbott Diagnostics
LIS allows third-party updates of tables and rules	yes (using AMA, CMS, USPS, Regenstrief Institute, others)	no	no
LIS allows for image capture, display, reporting	no	yes	yes
LIS provides indexed field in each test definition for LOINC code	yes	yes	yes
Provide LOINC dictionary for each new installation	yes	no	yes
LIS supports use of SNOMED CT	yes	no	yes
Use of third-party middleware for LIS–instrument interfaces	yes (for all instrument interfaces)	no (interface directly)	combination of direct interfaces and middleware
Provide LIS clients with company's own positive patient ID software to identify patients and blood specimens collected at bedside	yes (Allscripts Specimen Collection)	no	no
• LIS interfaces to third-party positive patient ID software used at bedside	no	no	yes
Source code/User group that meets on established schedule	escrow/yes (via webinar, conference call, in person)	no/yes (via webinar and conference call)	escrow/yes (via conference call)
Methods by which users can tailor LIS in their own setting	ad hoc query tools, user-defined interfaces, dictionary settings, others	ad hoc query tools, dictionary settings	ad hoc query tools, user-defined interfaces, dictionary settings, Microsoft SQL Reporting Services
Standard software maintenance fee covers periodic updates to LIS	yes (public domain table updates, hot patches, service packs, minor releases)	yes	yes
Fee for software modifications to comply with federal regulations and laws	potential charges for implementation services, interfaces, new modules provided with upgrades	standard (no charge)	changes required by FDA are included with current SLA; meaningful use options include a 10% surcharge available as a local server or an ASP or cloud-based product (client's option); the latter require a 3-year min. subscription commitment plus install fees
LIS functionality available via ASP or cloud-based data center	no	no	\$40,000 (annual maintenance fee, \$5,000)
Cost for smallest existing LIS install (includes hardware, software, install, training)	—	\$9,000 (annual maintenance fee, \$1,404)	\$750,000 (annual maintenance fee, \$85,000)
Cost for largest existing LIS install (includes hardware, software, install, training)	—	\$18,000 (annual maintenance fee, \$3,024)	
Distinguishing product features (supplied by company)	<ul style="list-style-type: none"> <li>fits well in most organizations—extremely scalable, flexible, and customizable</li> <li>outstanding support and services organization</li> <li>substantially decreased total cost of ownership with availability of Linux platform</li> </ul>	<ul style="list-style-type: none"> <li>single-module system for hematology, clinical, microbiology, pathology, toxicology, molecular testing</li> <li>specimen-centric system for clinical, industrial, research, and environmental laboratories</li> <li>integrated client, insurance, and patient billing (primary and secondary) with medical-necessity tool and accounts receivable system</li> </ul>	<ul style="list-style-type: none"> <li>strong multi-site capability</li> <li>drugs-of-abuse module with reporting for pain management</li> <li>strong interfacing capability</li> </ul>

\*any brand or model  
 \*\*generate >500,000 billed tests annually, or >200 bed hospitals, or >500 requisitions per day  
 \*\*\*generate <500,000 billed tests annually, or <200 bed hospitals, or <500 requisitions per day  
 \*\*\*\*HL7 2.5.1, LOINC, SNOMED, etc.  
 \*\*\*\*\*using NAAACCR Pathology Laboratory Electronic Reporting, vol. V, version 4.0, April 2011 ed.  
 Note: a dash as an answer means company did not respond or question is not applicable

<sup>†</sup>formerly McKesson Lab and Horizon Lab

Part 2 of 11	<b>Cerner Corp.</b> Jennifer Smith laboratory@cerner.com North Kansas City, MO 816-221-1024 www.cerner.com	<b>Clinical Software Solutions</b> Emily Brester info@clin1.com Queen Creek, AZ 800-570-0474 www.clin1.net	<b>Clinlab</b> Allen Wilson awilson@clinlabinc.com Orange City, FL 800-487-5227 www.clinlabinc.com
See <a href="http://captodayonline.com/productguides">captodayonline.com/productguides</a> for an interactive version of guide			
Name of laboratory information system	Cerner Millennium	CLIN1 Laboratory <sup>†</sup>	Clinlab LIS
First ever*/Most recent LIS installation (based on August 2018 survey deadline)	1982/August 2018	1987/July 2018	1987/May 2018
Total No. of contracts for sites operating LIS	282 domains (not tracked by contract)	—	16
No. of sales of LIS between August 2017–August 2018	—	4	2
Total No. of sites operating LIS (U.S. hospitals/U.S. independent labs/U.S. clinics or group practices/U.S. public health labs/other U.S. sites/foreign sites)	— (tracked by domain, not site)	60	16 (3/3/6/1/3–student health centers/0)
• Types/Locations of foreign installations	—/Australia, Brazil, Canada, Cayman Islands, Egypt, Malaysia, Qatar, Saudi Arabia, Singapore, U.K., UAE	—	—
No. of LIS installations between August 2017–August 2018	—	4	2
Percentage of high-volume** sites installed/Low-volume*** sites installed	—	10%/90%	35%/65%
Percentage of sites where company has no other software installed	10%	—	100%
Foreign countries where company actively markets LIS	Australia, Canada, Europe, Ireland, Latin America, Middle East, Singapore, United Kingdom	Canada, United Kingdom	none
Provide list of installed client sites to potential customers on request	yes (partial list of comparable sites)	yes (partial list of comparable sites)	yes (partial list of comparable sites)
Clients restricted from sharing their experience with company or LIS	no	no	no
No. of employees in entire company	26,000+	12	6
• No. of employees dedicated to LIS development, installation, and support	300+	6	4
Range in No. of user workstations in sites operating LIS	not tracked	3–150 (average, 10)	3–100 (average, 5)
Central hardware or service type	client hosted (IBM, HP) or Cerner hosted	client/server	Microsoft server
How central server failure is handled	manual intervention necessary to restore operation or system continues uninterrupted (user's option)	manual intervention necessary to restore operation or system continues uninterrupted (user's option)	manual intervention necessary to restore operation or system continues uninterrupted (user's option)
Programming language(s)	Java, Visual Basic, C++, C#, Visual C	4GL	C#, Delphi
Operating system(s)	HP-UX, AIX, VMS	Windows	Windows
Databases and tools	Oracle	SQL	SAP (Sybase SQL)
System includes full transaction logging	yes	yes	no
Languages (other than English) offered on system	British-English, German, Spanish, French	—	none
Features/modules incorporated in product:			
• Chemistry/Hematology	installed at client sites/installed at client sites	installed at client sites/installed at client sites	installed at client sites/installed at client sites
• Bar-coded collection labels	installed at client sites	installed at client sites	installed at client sites
• Microbiology/Public health microbiology	installed at client sites/installed at client sites	installed at client sites/installed at client sites	installed at client sites/installed at client sites
• Blood bank donor/Blood bank transfusion	not available/installed at client sites	available but not installed/available but not installed	not available/not available
• Surgical pathology/Cytology	installed at client sites/installed at client sites	installed at client sites/installed at client sites	not available/not available
• Molecular pathology/Cytogenetics/Flow cytometry	installed at client sites/installed at client sites/ installed at client sites	installed at client sites/installed at client sites/ available but not installed	installed at client sites/installed at client sites/ installed at client sites
• EHR interface for admission/discharge/transfer (ADT)	installed at client sites	installed at client sites	installed at client sites
• EHR interface for order entry/EHR interface for results reporting	installed at client sites/installed at client sites	installed at client sites/installed at client sites	installed at client sites/installed at client sites
• EHR interface for packaging results into PDF format	installed at client sites	installed at client sites	installed at client sites
• EHR interface for packaging results into CDA1 format/CDA2 format	installed at client sites/installed at client sites	installed at client sites/installed at client sites	available but not installed/available but not installed
• Ad hoc reporting/Rules-based system	installed at client sites/installed at client sites	installed at client sites/installed at client sites	installed at client sites/available but not installed
• Management and statistical reporting	installed at client sites	installed at client sites	installed at client sites
• Connection to provider offices/Commercial lab functionality	installed at client sites/installed at client sites	installed at client sites/installed at client sites	installed at client sites/installed at client sites
• Compliance checking	installed at client sites	installed at client sites	installed at client sites
• Billing and accounts receivable	installed at client sites	installed at client sites	not available
• Materials management and inventory	installed at client sites	installed at client sites	not available
• Test partition/Remote faxing or printing	installed at client sites/installed at client sites	installed at client sites/installed at client sites	installed at client sites/installed at client sites
• HIPAA-standard transaction formats	installed at client sites	installed at client sites	installed at client sites
• Web-based remote inquiry of reports/Web access for order entry	not available <sup>†</sup> /not available <sup>†</sup>	installed at client sites/installed at client sites	installed at client sites/installed at client sites
• Specimen management and tracking	installed at client sites	installed at client sites	installed at client sites
• Compliance and quality assurance tools	installed at client sites	installed at client sites	installed at client sites
• Environmental health/Business analytics	installed at client sites/installed at client sites	available but not installed/installed at client sites	installed at client sites/installed at client sites
• Reference lab interface for orders, results return, status return	installed at client sites	installed at client sites	installed at client sites
LIS can report lab data that is focus of meaningful use guidelines to public health agencies via automated electronic transmission using specified formats**** for:			
• Microbiology data (culture and sensitivity)	yes	yes	yes
• Other reportable diseases (blood lead, immunology, etc.)	yes	yes	yes
• Tumor diagnosis and case data to regional cancer registry*****	yes	under development	no
LIS provides database flag or field to set time parameters for retaining test results online without being archived?	system does not archive (all test results retained online [not archived] indefinitely)	yes (all test results can be retained online [not archived] for the life of LIS)	no
• How test results retained online are made available	query, reports	query, reports	—
Lab automation systems or workcells to which LIS has a direct interface	Beckman Coulter, Siemens, Labotix Automation, Olympus America, Roche, Abbott	Beckman Coulter, Siemens, Ortho Clinical Diagnostics, Labotix Automation, Thermo Scientific, Olympus America, Roche Diagnostics, Abbott Diagnostics	Beckman Coulter, Roche Diagnostics, Abbott Diagnostics
LIS allows third-party updates of tables and rules	no	no	no
LIS allows for image capture, display, reporting	yes	yes	no
LIS provides indexed field in each test definition for LOINC code	yes	yes	yes
Provide LOINC dictionary for each new installation	yes	no	yes
LIS supports use of SNOMED CT	yes	yes	no
Use of third-party middleware for LIS–instrument interfaces	no (interface directly)	no (interface directly)	combination of direct interfaces and middleware
Provide LIS clients with company's own positive patient ID software to identify patients and blood specimens collected at bedside	yes (Point of Care Specimen Collection, Bridge Specimen Collection)	yes (built into CLIN1 Laboratory)	no
• LIS interfaces to third-party positive patient ID software used at bedside	—	yes	—
Source code/User group that meets on established schedule	no/yes (in person and via webinar)	no/yes (via webinar and conference call)	no/no
Methods by which users can tailor LIS in their own setting	ad hoc query tools, user-defined interfaces, dictionary settings	ad hoc query tools, dictionary settings	ad hoc query tools, user-defined interfaces, dictionary settings, table-driven decision support
Standard software maintenance fee covers periodic updates to LIS	yes	yes	yes
Fee for software modifications to comply with federal regulations and laws	standard (no charge)	standard (no charge)	standard (no charge)
LIS functionality available via ASP or cloud-based data center	available as a local server or an ASP or cloud-based product (client's option)	available as a local server or an ASP or cloud-based product (client's option)	available as a local server or an ASP or cloud-based product (client's option); for the latter, regular system pricing plus hosting fees
Cost for smallest existing LIS install (includes hardware, software, install, training)	—	\$15,000 (annual maintenance fee, \$3,000)	\$10,000 (annual maintenance fee, \$1,500)
Cost for largest existing LIS install (includes hardware, software, install, training)	—	\$350,000 (annual maintenance fee, \$75,000)	\$350,000 (annual maintenance fee, \$5,250)
Distinguishing product features (supplied by company)	<ul style="list-style-type: none"> <li>driving innovations to connect laboratories, customers, and devices</li> <li>best-of-breed LIS with a large, diverse client base</li> <li>more than 35 years of creating and implementing LIS software innovations</li> </ul>	<ul style="list-style-type: none"> <li>company understands advanced analytical methods required for new protocols, interpretations, and unique data-management requirements</li> <li>company will customize interfaces and processors</li> <li>staff are laboratory professionals developing tools for research and clinical laboratory professionals</li> </ul>	<ul style="list-style-type: none"> <li>automatic multi-report styles selection by provider or location</li> <li>real-time instrument and HL7 interfaces with release rules</li> <li>high-speed TCP/IP interfacing to instrument automation systems</li> </ul>
*any brand or model			
**generate >500,000 billed tests annually, or >200 bed hospitals, or >500 requisitions per day			
***generate <500,000 billed tests annually, or <200 bed hospitals, or <500 requisitions per day			
****HL7 2.5.1, LOINC, SNOMED, etc.			
*****using NAACCR Pathology Laboratory Electronic Reporting, vol. V, version 4.0, April 2011 ed.			
Note: a dash as an answer means company did not respond or question is not applicable			
	<sup>†</sup> interface to electronic portals for orders and results	<sup>†</sup> formerly CSSWin LIS, CLIN1-LIS	

Part 3 of 11	<b>Common Cents Systems</b> G. James gretchen.james@commoncentssystems.com Nashville, TN 800-805-9278 www.apollolims.com	<b>Comp Pro Med</b> Jeff Fisher sales@comppromed.com Santa Rosa, CA 800-276-4522 www.comppromed.com	<b>CompuGroup Medical</b> Gene Williamson gene.williamson@cgm.com Owings Mills, MD 410-517-0330 www.cgmus.com
See <a href="http://captodayonline.com/productguides">captodayonline.com/productguides</a> for an interactive version of guide			
Name of laboratory information system	ApolloLIMS	Polytech	CGM LABDAQ†
First ever*/Most recent LIS installation (based on August 2018 survey deadline)	1987/January 2018	1981/August 2018	1991/August 2018
Total No. of contracts for sites operating LIS	66	172	2,932
No. of sales of LIS between August 2017–August 2018	6	10	136
Total No. of sites operating LIS (U.S. hospitals/U.S. independent labs/U.S. clinics or group practices/U.S. public health labs/other U.S. sites/foreign sites)	66 (1/33/18/14/0/0)	155 (28/44/29/1/0/53)	3,474 (73/455/2,935/0/0/11)
• Types/Locations of foreign installations	—	hospitals, clinics/Canada, Ethiopia, Phillippines, Bhutan, Uganda, Nigeria	clinics, independent labs/United Arab Emirates, Malawi, Virgin Islands, Panama, Iraq
No. of LIS installations between August 2017–August 2018	18	10	91
Percentage of high-volume** sites installed/Low-volume*** sites installed	40%/60%	0/100%	not tracked/not tracked
Percentage of sites where company has no other software installed	100%	100%	100%
Foreign countries where company actively markets LIS	none	none	none
Provide list of installed client sites to potential customers on request	dependent on type of lab	no (information is confidential)	yes (partial list of comparable sites)
Clients restricted from sharing their experience with company or LIS	no	no	no
No. of employees in entire company	19	13	250
• No. of employees dedicated to LIS development, installation, and support	15	8	79
Range in No. of user workstations in sites operating LIS	2–60 (average, 12)	2–200 (average, 15)	1–150+ (average, 5–10)
Central hardware or service type	Microsoft server	any (client supported)	client/server (business grade)
How central server failure is handled	manual intervention necessary to restore operation or system continues uninterrupted (user's option)	system continues uninterrupted; Edge Computing Topology (no central server)	manual intervention necessary to restore operation or system continues uninterrupted (user's option)
Programming language(s)	Delphi, SQL	C++	.Net
Operating system(s)	Microsoft	Windows 7, 8, 10	Windows Server 2012 F2, Windows 10 Professional
Databases and tools	InterSystems Caché, Microsoft SQL	Pervasive	Oracle
System includes full transaction logging	yes	yes	yes
Languages (other than English) offered on system	none	all languages supported by Microsoft OS	none
Features/modules incorporated in product:			
• Chemistry/Hematology	installed at client sites/installed at client sites	installed at client sites/installed at client sites	installed at client sites/installed at client sites
• Bar-coded collection labels	installed at client sites	installed at client sites	installed at client sites
• Microbiology/Public health microbiology	installed at client sites/installed at client sites	installed at client sites/installed at client sites	installed at client sites/installed at client sites
• Blood bank donor/Blood bank transfusion	not available/not available	in testing phase/in testing phase	not available/not available
• Surgical pathology/Cytology	not available/not available	installed at client sites/installed at client sites	installed at client sites/installed at client sites
• Molecular pathology/Cytogenetics/Flow cytometry	not available/not available/not available	installed at client sites/installed at client sites/installed at client sites	installed at client sites/not available/installed at client sites
• EHR interface for admission/discharge/transfer (ADT)	installed at client sites	installed at client sites	installed at client sites
• EHR interface for order entry/EHR interface for results reporting	installed at client sites/installed at client sites	installed at client sites/installed at client sites	installed at client sites/installed at client sites
• EHR interface for packaging results into PDF format	installed at client sites	installed at client sites	installed at client sites
• EHR interface for packaging results into CDA1 format/CDA2 format	installed at client sites/not available	installed at client sites/installed at client sites	not available/not available
• Ad hoc reporting/Rules-based system	installed at client sites/installed at client sites	installed at client sites/installed at client sites	installed at client sites/installed at client sites
• Management and statistical reporting	installed at client sites	installed at client sites	installed at client sites
• Connection to provider offices/Commercial lab functionality	installed at client sites/installed at client sites	installed at client sites/installed at client sites	installed at client sites/installed at client sites
• Compliance checking	installed at client sites	installed at client sites	installed at client sites
• Billing and accounts receivable	installed at client sites	installed at client sites	not available
• Materials management and inventory	installed at client sites	installed at client sites	available but not installed
• Test partition/Remote faxing or printing	installed at client sites/installed at client sites	installed at client sites/installed at client sites	installed at client sites/installed at client sites
• HIPAA-standard transaction formats	installed at client sites	installed at client sites	installed at client sites
• Web-based remote inquiry of reports/Web access for order entry	installed at client sites/installed at client sites	installed at client sites/installed at client sites	installed at client sites/installed at client sites
• Specimen management and tracking	installed at client sites	installed at client sites	installed at client sites
• Compliance and quality assurance tools	installed at client sites	installed at client sites	installed at client sites
• Environmental health/Business analytics	installed at client sites/installed at client sites	in testing phase/installed at client sites	installed at client sites/installed at client sites
• Reference lab interface for orders, results return, status return	installed at client sites	installed at client sites	installed at client sites
LIS can report lab data that is focus of meaningful use guidelines to public health agencies via automated electronic transmission using specified formats**** for:			
• Microbiology data (culture and sensitivity)	yes	yes	yes
• Other reportable diseases (blood lead, immunology, etc.)	yes	yes	yes
• Tumor diagnosis and case data to regional cancer registry*****	no	yes	no
LIS provides database flag or field to set time parameters for retaining test results online without being archived?	yes (all test results can be retained online [not archived] for the life of LIS)	system does not archive (all test results retained online [not archived] indefinitely)	archiving not required
• How test results retained online are made available	query	—	—
Lab automation systems or workcells to which LIS has a direct interface	Beckman Coulter, Siemens, Ortho Clinical Diagnostics, Thermo Scientific, Olympus America, Roche Diagnostics, Abbott Diagnostics	Beckman Coulter, Siemens, Ortho Clinical Diagnostics, Thermo Scientific, Olympus America, Roche Diagnostics, Abbott Diagnostics	Beckman Coulter, Siemens, Roche Diagnostics
LIS allows third-party updates of tables and rules	no	yes (using LOINC, NDC, ICD-10, others)	yes (using CodeMap)
LIS allows for image capture, display, reporting	yes	yes	yes
LIS provides indexed field in each test definition for LOINC code	yes	yes	yes
Provide LOINC dictionary for each new installation	yes	yes	no
LIS supports use of SNOMED CT	yes	yes	yes
Use of third-party middleware for LIS–instrument interfaces	no (interface directly)	no (interface directly)	no (interface directly)
Provide LIS clients with company's own positive patient ID software to identify patients and blood specimens collected at bedside	no	available but not yet requested or deployed	no
• LIS interfaces to third-party positive patient ID software used at bedside	—	yes	no
Source code/User group that meets on established schedule	escrow/yes (via conference call)	no/no	escrow/yes (in person and via webinar)
Methods by which users can tailor LIS in their own setting	ad hoc query tools, user-defined interfaces, dictionary settings	ad hoc query tools, user-defined interfaces, dictionary settings	ad hoc query tools, user-configurable rules, user-defined fields for patient and requisition information
Standard software maintenance fee covers periodic updates to LIS	yes	yes	yes
Fee for software modifications to comply with federal regulations and laws	standard (no charge)	standard (no charge)	standard (no charge)
LIS functionality available via ASP or cloud-based data center	available as a local server or an ASP or cloud-based product (client's option); for the latter, implementation and monthly usage fees	no	no
Cost for smallest existing LIS install (includes hardware, software, install, training)	\$86,722 (annual maintenance fee, \$15,027.24)	—	\$16,000 (annual maintenance fee, \$2,100)
Cost for largest existing LIS install (includes hardware, software, install, training)	\$666,000 (annual maintenance fee, \$133,088.28)	—	\$700,000 (annual maintenance fee, \$98,000)
Distinguishing product features (supplied by company)	<ul style="list-style-type: none"> <li>flexible, rules-based, highly efficient database structure combined with a rules-based architecture</li> <li>intuitive user interface—assists with rapid training and deployment</li> <li>fully integrated—all lab disciplines; QC; imaging; instrument and EMR interfaces; QA; Web reporting; Web order entry</li> </ul>	<ul style="list-style-type: none"> <li>product quality: built on advanced technology with lower costs and no downtime</li> <li>unmatched support: Comp Pro Med provides direct support from senior programmers and can go live in less than four weeks</li> <li>transparent pricing: Comp Pro Med uses a highly competitive pricing model with no hidden charges or extra fees</li> </ul>	<ul style="list-style-type: none"> <li>advanced integration and connectivity capabilities with EHRs, billing, reference labs, and analyzers</li> <li>powerful user-defined rules and data-mining queries to assist with decision-support logic, data analytics</li> <li>experienced, responsive support staff, sales personnel, and system integration department for complete system support</li> </ul>

\*any brand or model

\*\*generate >500,000 billed tests annually, or >200 bed hospitals, or >500 requisitions per day

\*\*\*generate <500,000 billed tests annually, or <200 bed hospitals, or <500 requisitions per day

\*\*\*\*HL7 2.5.1, LOINC, SNOMED, etc.

\*\*\*\*\*using NAACCR Pathology Laboratory Electronic Reporting, vol. V, version 4.0, April 2011 ed.

Note: a dash as an answer means company did not respond or question is not applicable

†formerly marketed by Antek HealthWare as LabDAQ



Part 4 of 11	<b>Computer Service and Support</b> <b>Melanie Burdhimo</b> mburdhimo@csslis.com <b>Linwood, NJ</b> <b>609-653-6444</b> www.csslis.com	<b>Diamond Computing</b> <b>Jim Campbell</b> jim@diamondcomputing.net <b>Johns Creek, GA</b> <b>770-496-0286</b> www.diamondcomputing.net	<b>Epic</b> <b>Nick Trentadue</b> nick.trentadue@epic.com <b>Verona, WI</b> <b>608-777-9000</b> www.epic.com
See <a href="http://captodayonline.com/productguides">captodayonline.com/productguides</a> for an interactive version of guide			
Name of laboratory information system	Avalon	LabGEM	Beaker Laboratory Information System
First ever*/Most recent LIS installation (based on August 2018 survey deadline)	1980/May 2018	1984/April 2018	1980/August 2018
Total No. of contracts for sites operating LIS	—	22	140
No. of sales of LIS between August 2017–August 2018	9	4	35
Total No. of sites operating LIS (U.S. hospitals/U.S. independent labs/U.S. clinics or group practices/U.S. public health labs/other U.S. sites/foreign sites)	129 (0/126/0/0/0/3)	22 (2/17/2/1/0/0)	450
• Types/Locations of foreign installations	—/United Arab Emirates, Canada	—	—/Canada, United Kingdom, Singapore
No. of LIS installations between August 2017–August 2018	9	4	33
Percentage of high-volume** sites installed/Low-volume*** sites installed	35%/65%	70%/30%	50%/50%
Percentage of sites where company has no other software installed	10%	50%	0
Foreign countries where company actively markets LIS	none	none	—
Provide list of installed client sites to potential customers on request	yes (partial list of comparable sites)	yes (complete list but prospective client must sign a nondisclosure agreement)	yes (complete list with no restrictions regarding its use)
Clients restricted from sharing their experience with company or LIS	no	no	no
No. of employees in entire company	16	6	9,500
• No. of employees dedicated to LIS development, installation, and support	8	6	260
Range in No. of user workstations in sites operating LIS	2–100+ (average, 18)	3–600 (average, 30)	—
Central hardware or service type	IBM RS/6000 Power Servers	Intel/Dell	HP 9000, HP Integrity, Sun Sparc, IBM p5 Series
How central server failure is handled	manual intervention necessary to restore operation or system continues uninterrupted (user's option)	manual intervention necessary to restore operation or system continues uninterrupted (user's option)	system continues uninterrupted
Programming language(s)	Java, PHP, C++, AIX, Linux, MySQL	Visual Basic, MUMPS, .Net	Visual Basic, Caché, C#, ASP .Net, JavaScript
Operating system(s)	AIX, Linux	Windows	Unix, Windows
Databases and tools	MySQL	Caché	Chronicles Extended Relational Database Management System
System includes full transaction logging	—	yes	yes
Languages (other than English) offered on system	—	—	—
Features/modules incorporated in product:			
• Chemistry/Hematology	installed at client sites/installed at client sites	installed at client sites/installed at client sites	installed at client sites/installed at client sites
• Bar-coded collection labels	installed at client sites	installed at client sites	installed at client sites
• Microbiology/Public health microbiology	installed at client sites/available but not installed	installed at client sites/installed at client sites	installed at client sites/installed at client sites
• Blood bank donor/Blood bank transfusion	not available/not available	—	not available/not available
• Surgical pathology/Cytology	available but not installed/not available	installed at client sites/installed at client sites	installed at client sites/installed at client sites
• Molecular pathology/Cytogenetics/Flow cytometry	not available/not available/not available	installed at client sites/installed at client sites/ installed at client sites	installed at client sites/installed at client sites/ installed at client sites
• EHR interface for admission/discharge/transfer (ADT)	installed at client sites	installed at client sites	installed at client sites
• EHR interface for order entry/EHR interface for results reporting	installed at client sites/installed at client sites	installed at client sites/installed at client sites	installed at client sites/installed at client sites
• EHR interface for packaging results into PDF format	installed at client sites	installed at client sites	installed at client sites
• EHR interface for packaging results into CDA1 format/CDA2 format	installed at client sites/installed at client sites	installed at client sites/installed at client sites	not available/not available
• Ad hoc reporting/Rules-based system	installed at client sites/installed at client sites	installed at client sites/installed at client sites	installed at client sites/installed at client sites
• Management and statistical reporting	installed at client sites	installed at client sites	installed at client sites
• Connection to provider offices/Commercial lab functionality	installed at client sites/installed at client sites	installed at client sites/installed at client sites	installed at client sites/installed at client sites
• Compliance checking	—	installed at client sites	installed at client sites
• Billing and accounts receivable	installed at client sites	installed at client sites	installed at client sites
• Materials management and inventory	installed at client sites	—	not available
• Test partition/Remote faxing or printing	installed at client sites/installed at client sites	installed at client sites/installed at client sites	installed at client sites/installed at client sites
• HIPAA-standard transaction formats	installed at client sites	installed at client sites	installed at client sites
• Web-based remote inquiry of reports/Web access for order entry	installed at client sites/installed at client sites	installed at client sites/installed at client sites	installed at client sites/installed at client sites
• Specimen management and tracking	installed at client sites	installed at client sites	installed at client sites
• Compliance and quality assurance tools	—	installed at client sites	installed at client sites
• Environmental health/Business analytics	not available/installed at client sites	installed at client sites/installed at client sites	installed at client sites/installed at client sites
• Reference lab interface for orders, results return, status return	installed at client sites	installed at client sites	installed at client sites
LIS can report lab data that is focus of meaningful use guidelines to public health agencies via automated electronic transmission using specified formats**** for:			
• Microbiology data (culture and sensitivity)	yes	yes	yes
• Other reportable diseases (blood lead, immunology, etc.)	yes	yes	yes
• Tumor diagnosis and case data to regional cancer registry*****	no	yes	yes
LIS provides database flag or field to set time parameters for retaining test results online without being archived?	—	yes, for HIV and STD tests (all test results can be retained online [not archived] for the life of LIS)	yes (all test results can be retained online [not archived] for the life of LIS)
• How test results retained online are made available	—	inquiry, query, cumulative	—
Lab automation systems or workcells to which LIS has a direct interface	Beckman Coulter, Siemens, Roche Diagnostics, Abbott Diagnostics	none (planned for future)	none
LIS allows third-party updates of tables and rules	no	no	no
LIS allows for image capture, display, reporting	yes	yes	yes
LIS provides indexed field in each test definition for LOINC code	yes	yes	yes
Provide LOINC dictionary for each new installation	no	yes	no
LIS supports use of SNOMED CT	yes	yes	yes
Use of third-party middleware for LIS–instrument interfaces	no (interface directly)	combination of direct interfaces and middleware	yes (for all instrument interfaces)
Provide LIS clients with company's own positive patient ID software to identify patients and blood specimens collected at bedside	no	no	yes (Rover/EpicCare)
• LIS interfaces to third-party positive patient ID software used at bedside	—	yes	no
Source code/User group that meets on established schedule	escrow/no	escrow/—	yes/yes (via webinar, conference call, and in person)
Methods by which users can tailor LIS in their own setting	ad hoc query tools, user-defined interfaces, dictionary settings, access to SQL database	ad hoc query tools, user-defined interfaces, dictionary settings, Diamond special programs	ad hoc query tools, user-defined interfaces, dictionary settings
Standard software maintenance fee covers periodic updates to LIS	yes	yes	yes
Fee for software modifications to comply with federal regulations and laws	standard (no charge)	standard (no charge)	standard (no charge)
LIS functionality available via ASP or cloud-based data center	available as a local server or an ASP or cloud-based product (client's option)	no	available as a local server or an ASP or cloud-based product (client's option)
Cost for smallest existing LIS install (includes hardware, software, install, training)	\$25,000 (annual maintenance fee, \$4,000)	\$12,000	—
Cost for largest existing LIS install (includes hardware, software, install, training)	\$265,000 (annual maintenance fee, \$42,000)	—	—
Distinguishing product features (supplied by company)	<ul style="list-style-type: none"> <li>• ease of use and training</li> <li>• ease of integration with other products</li> <li>• ease of access to database for internal use</li> </ul>	<ul style="list-style-type: none"> <li>• cost</li> <li>• performance</li> <li>• reliability</li> </ul>	<ul style="list-style-type: none"> <li>• seamless native data transfer from LIS to EMR without need for interfaces or translation tables</li> <li>• integrated PPID specimen collection with end-to-end specimen tracking from ordering to sample storage</li> <li>• customer-driven development philosophy; customers guide the design, direction, and prioritization of development</li> </ul>
*any brand or model			
**generate >500,000 billed tests annually, or >200 bed hospitals, or >500 requisitions per day			
***generate <500,000 billed tests annually, or <200 bed hospitals, or <500 requisitions per day			
****HL7 2.5.1, LOINC, SNOMED, etc.			
*****using NAACCR Pathology Laboratory Electronic Reporting, vol. V, version 4.0, April 2011 ed.			
Note: a dash as an answer means company did not respond or question is not applicable			

Part 5 of 11	<b>Evident LLC</b> Sales Department sales@evident.com Mobile, AL 800-711-2774 www.evident.com	<b>HEX Laboratory Systems</b> Susan Bollinger sbollinger@hexlab.com Encinitas, CA 800-729-2085 www.hexlab.com	<b>Ilex Medical</b> Eran Ohayon erano@orsyx.com Petah Tikva, Israel +972 3 938 5537 www.ilxmedical.com
See <a href="http://captodayonline.com/productguides">captodayonline.com/productguides</a> for an interactive version of guide			
Name of laboratory information system	Thrive EHR-LIS†	LAB/HEX	eL@b†
First ever*/Most recent LIS installation (based on August 2018 survey deadline)	1986/August 2018	1981/July 2018	1990/July 2018
Total No. of contracts for sites operating LIS	428	160	64
No. of sales of LIS between August 2017–August 2018	14	2	3
Total No. of sites operating LIS (U.S. hospitals/U.S. independent labs/U.S. clinics or group practices/U.S. public health labs/other U.S. sites/foreign sites)	428 (428/0/not tracked/not tracked/0/0)	160 (10/87/41/2/9–veterinary, environmental, pharma/11)	64 (0/1/0/0/0/63)
• Types/Locations of foreign installations	—	independent/Middle East	hospitals, HMOs, national health organizations, blood banks, HIV centers, forensic, others/Israel, South Africa, Lithuania, England, Russia, Botswana
No. of LIS installations between August 2017–August 2018	14	2	3
Percentage of high-volume** sites installed/Low-volume*** sites installed	3%/97%	53%/47%	100%/0
Percentage of sites where company has no other software installed	0	90%	100%
Foreign countries where company actively markets LIS	Canada, St. Maarten	worldwide	Israel, Lithuania, sub-Saharan Africa
Provide list of installed client sites to potential customers on request	yes (partial list of comparable sites)	yes (partial list of comparable sites)	yes (complete list with no restrictions regarding its use)
Clients restricted from sharing their experience with company or LIS	no	no	no
No. of employees in entire company	2,064 (total for parent company, CPSI)	13	300
• No. of employees dedicated to LIS development, installation, and support	327	13	15
Range in No. of user workstations in sites operating LIS	6–500 (average, 100)	3–64 (average, 24)	1–80 (average, 10)
Central hardware or service type	IBM x3850	Dell server with Intel RAID	—
How central server failure is handled	manual intervention necessary to restore operation or system continues uninterrupted (user's option)	manual intervention necessary to restore operation or system continues uninterrupted (user's option)	system continues uninterrupted
Programming language(s)	Visual C++	Thoroughbred	C#, Angular TypeScript
Operating system(s)	Linux	Linux	Windows server
Databases and tools	SQL	Thoroughbred IDOL-IV	SQL server
System includes full transaction logging	yes	yes	yes
Languages (other than English) offered on system	none	Spanish	German, French, Italian, Lithuanian, Spanish, others
Features/modules incorporated in product:			
• Chemistry/Hematology	installed at client sites/installed at client sites	installed at client sites/installed at client sites	installed at client sites/installed at client sites
• Bar-coded collection labels	installed at client sites	installed at client sites	installed at client sites
• Microbiology/Public health microbiology	installed at client sites/installed at client sites	installed at client sites/installed at client sites	installed at client sites/installed at client sites
• Blood bank donor/Blood bank transfusion	installed at client sites/installed at client sites	not available/not available	installed at client sites/not available
• Surgical pathology/Cytology	installed at client sites/installed at client sites	installed at client sites/installed at client sites	installed at client sites/installed at client sites
• Molecular pathology/Cytogenetics/Flow cytometry	not available/not available/not available	installed at client sites/installed at client sites/installed at client sites	installed at client sites/installed at client sites/installed at client sites
• EHR interface for admission/discharge/transfer (ADT)	installed at client sites	installed at client sites	installed at client sites
• EHR interface for order entry/EHR interface for results reporting	installed at client sites/installed at client sites	installed at client sites/installed at client sites	installed at client sites/installed at client sites
• EHR interface for packaging results into PDF format	installed at client sites	installed at client sites	installed at client sites
• EHR interface for packaging results into CDA1 format/CDA2 format	installed at client sites/installed at client sites	installed at client sites/installed at client sites	installed at client sites/installed at client sites
• Ad hoc reporting/Rules-based system	installed at client sites/installed at client sites	installed at client sites/installed at client sites	installed at client sites/installed at client sites
• Management and statistical reporting	installed at client sites	installed at client sites	installed at client sites
• Connection to provider offices/Commercial lab functionality	installed at client sites/installed at client sites	installed at client sites/installed at client sites	installed at client sites/installed at client sites
• Compliance checking	installed at client sites	installed at client sites	installed at client sites
• Billing and accounts receivable	installed at client sites	installed at client sites	installed at client sites
• Materials management and inventory	installed at client sites	installed at client sites	installed at client sites
• Test partition/Remote faxing or printing	installed at client sites/installed at client sites	installed at client sites/installed at client sites	installed at client sites/installed at client sites
• HIPAA-standard transaction formats	installed at client sites	installed at client sites	installed at client sites
• Web-based remote inquiry of reports/Web access for order entry	installed at client sites/installed at client sites	installed at client sites/installed at client sites	installed at client sites/installed at client sites
• Specimen management and tracking	not available	installed at client sites	installed at client sites
• Compliance and quality assurance tools	installed at client sites	installed at client sites	installed at client sites
• Environmental health/Business analytics	installed at client sites/installed at client sites	installed at client sites/installed at client sites	not available/installed at client sites
• Reference lab interface for orders, results return, status return	installed at client sites	installed at client sites	installed at client sites
LIS can report lab data that is focus of meaningful use guidelines to public health agencies via automated electronic transmission using specified formats**** for:			
• Microbiology data (culture and sensitivity)	yes	yes	yes
• Other reportable diseases (blood lead, immunology, etc.)	yes	yes	yes
• Tumor diagnosis and case data to regional cancer registry*****	yes	yes	yes
LIS provides database flag or field to set time parameters for retaining test results online without being archived?	yes (all test results can be retained online [not archived] for the life of LIS)	yes (all test results can be retained online [not archived] for the life of LIS)	yes (all test results can be retained online [not archived] for the life of LIS)
• How test results retained online are made available	query, cumulative reports, expert rules	query	query
Lab automation systems or workcells to which LIS has a direct interface	Beckman Coulter, Siemens, Ortho, Labotix Automation, Thermo Scientific, Olympus, Roche, Abbott	Beckman Coulter, Siemens, Roche Diagnostics, Abbott Diagnostics	Beckman Coulter, Siemens, Olympus America, Roche Diagnostics, Abbott Diagnostics
LIS allows third-party updates of tables and rules	yes (using Micromedex)	yes (using CodeMap, CMS, others)	no
LIS allows for image capture, display, reporting	yes	yes	yes
LIS provides indexed field in each test definition for LOINC code	yes	yes	yes
Provide LOINC dictionary for each new installation	yes	no	yes
LIS supports use of SNOMED CT	yes	yes	yes
Use of third-party middleware for LIS–instrument interfaces	yes (for all instrument interfaces)	no (interface directly)	combination of direct interfaces and middleware
Provide LIS clients with company's own positive patient ID software to identify patients and blood specimens collected at bedside	yes	no	no (in development)
• LIS interfaces to third-party positive patient ID software used at bedside	yes	yes	yes
Source code/User group that meets on established schedule	escrow/yes (in person and via webinar)	escrow/no	escrow/no
Methods by which users can tailor LIS in their own setting	ad hoc query tools, dictionary settings	ad hoc query tools, user-defined interfaces, dictionary settings, flags, others	user-defined interfaces, rules, custom format mapping, report generators, others
Standard software maintenance fee covers periodic updates to LIS	yes	yes	yes
Fee for software modifications to comply with federal regulations and laws	standard (no charge)	standard (no charge)	standard (no charge)
LIS functionality available via ASP or cloud-based data center	available as a local server or an ASP or cloud-based product (client's option)	available as a local server or an ASP or cloud-based product (client's option); the latter based on \$5,000 start-up cost plus monthly fees starting at \$500	no
Cost for smallest existing LIS install (includes hardware, software, install, training)	\$50,000 (annual maintenance fee, \$625)	\$20,000 (annual maintenance fee, \$3,600)	\$50,000 (annual maintenance fee, \$5,000)
Cost for largest existing LIS install (includes hardware, software, install, training)	\$70,000 (annual maintenance fee, \$875)	\$125,000 (annual maintenance fee, \$15,000)	\$500,000 (annual maintenance fee, \$50,000)
Distinguishing product features (supplied by company)	<ul style="list-style-type: none"> <li>fully integrated EHR and ONC-certified HIT</li> <li>company builds libraries and data dictionaries as a standard part of installation and conversion</li> <li>on-site training and support for all end users</li> </ul>	<ul style="list-style-type: none"> <li>reasonable pricing for all sizes of labs; stable, reliable, flexible system for all types of labs</li> <li>quick installation and implementation; 24/7 support; on-site hardware support; remote IT support</li> <li>toxicology module, molecular and specialty lab tools; custom result reports; integrated billing; EMR interfaces</li> </ul>	<ul style="list-style-type: none"> <li>one system to manage the entire process, including ordering, remote sample collection, routing, QC, more</li> <li>generic communication interfaces that enable connecting a new analyzer, host, or automation system in a short time</li> <li>high performance and workloads scaled to lab size</li> </ul>
*any brand or model			
**generate >500,000 billed tests annually, or >200 bed hospitals, or >500 requisitions per day			
***generate <500,000 billed tests annually, or <200 bed hospitals, or <500 requisitions per day			
****HL7 2.5.1, LOINC, SNOMED, etc.			
*****using NAACCR Pathology Laboratory Electronic Reporting, vol. V, version 4.0, April 2011 ed.			
Note: a dash as an answer means company did not respond or question is not applicable			
	†formerly CPSI System		†formerly marketed by Beckman Coulter as DataWizard

Part 6 of 11	<b>LabSoft</b> Sales sales@labsoftweb.com Tampa, FL 800-767-3279 www.labsoftweb.com	<b>LabWare</b> Ed Krasovec krasovec@labware.com Wilmington, DE 302-658-8444 www.labware.com	<b>LigoLab Information Systems</b> Suren Avunjian suren@ligolab.com Glendale, CA 800-544-6522/818-230-1307 www.ligolab.com
See <a href="http://captodayonline.com/productguides">captodayonline.com/productguides</a> for an interactive version of guide			
Name of laboratory information system	LabNet	LabWare	LigoLab AP/LIS 4.0 <sup>†</sup>
First ever*/Most recent LIS installation (based on August 2018 survey deadline)	1992/May 2017	1999/August 2018	2006/August 2018
Total No. of contracts for sites operating LIS	300+	157	39
No. of sales of LIS between August 2017–August 2018	2	15	8
Total No. of sites operating LIS (U.S. hospitals/U.S. independent labs/U.S. clinics or group practices/U.S. public health labs/other U.S. sites/foreign sites)	300+ (62/52/195/3/3—research/0)	287 (3/8/0/18/30—clinical research, biobank/228)	96 (18/56/22/0/0/0)
• Types/Locations of foreign installations	—	clinical research, biobank, public health/U.K., India, Kenya, Portugal, Columbia, China, Switzerland, many others	—
No. of LIS installations between August 2017–August 2018	2	15	—
Percentage of high-volume** sites installed/Low-volume*** sites installed	15%/85%	20%/80%	70%/30%
Percentage of sites where company has no other software installed	100%	100%	—
Foreign countries where company actively markets LIS	none	most global regions covered by direct sales; distributors used by exception	none
Provide list of installed client sites to potential customers on request	yes (partial list of comparable sites)	yes (complete list but prospective client must sign a nondisclosure agreement)	yes (complete list but prospective client must sign a nondisclosure agreement)
Clients restricted from sharing their experience with company or LIS	no	no	no
No. of employees in entire company	8	668	35
• No. of employees dedicated to LIS development, installation, and support	5	72	30
Range in No. of user workstations in sites operating LIS	1–85 (average, 3)	5–600	15–400 (average, 60)
Central hardware or service type	Dell, Hewlett-Packard	database server: Sun, Unix, Linux, Windows, others; application server: Windows 2008, 2012	ASP or client hosted
How central server failure is handled	manual intervention necessary to restore operation or system continues uninterrupted (user's option)	system continues uninterrupted	manual intervention necessary to restore operation or system continues uninterrupted (user's option)
Programming language(s)	Delphi	Java, .Net, Smalltalk	Java
Operating system(s)	Windows	Windows	Windows, Macintosh
Databases and tools	SQL	Oracle, SQL server, PostgreSQL, DB2	Microsoft SQL, Oracle
System includes full transaction logging	no	yes	yes
Languages (other than English) offered on system	none	German, French, Spanish, Swedish, many others	—
Features/modules incorporated in product:			
• Chemistry/Hematology	installed at client sites/installed at client sites	installed at client sites/installed at client sites	installed at client sites/installed at client sites
• Bar-coded collection labels	installed at client sites	installed at client sites	installed at client sites
• Microbiology/Public health microbiology	installed at client sites/installed at client sites	installed at client sites/installed at client sites	installed at client sites/installed at client sites
• Blood bank donor/Blood bank transfusion	not available/not available	installed at client sites/under development	under development/under development
• Surgical pathology/Cytology	not available/not available	installed at client sites/installed at client sites	installed at client sites/installed at client sites
• Molecular pathology/Cytogenetics/Flow cytometry	not available/not available/not available	installed at client sites/installed at client sites/installed at client sites	installed at client sites/installed at client sites/installed at client sites
• EHR interface for admission/discharge/transfer (ADT)	installed at client sites	installed at client sites	installed at client sites
• EHR interface for order entry/EHR interface for results reporting	installed at client sites/installed at client sites	installed at client sites/installed at client sites	installed at client sites/installed at client sites
• EHR interface for packaging results into PDF format	installed at client sites	installed at client sites	installed at client sites
• EHR interface for packaging results into CDA1 format/CDA2 format	not available/not available	available but not installed/available but not installed	installed at client sites/installed at client sites
• Ad hoc reporting/Rules-based system	not available/installed at client sites	installed at client sites/installed at client sites	installed at client sites/installed at client sites
• Management and statistical reporting	installed at client sites	installed at client sites	installed at client sites
• Connection to provider offices/Commercial lab functionality	installed at client sites/installed at client sites	installed at client sites/installed at client sites	installed at client sites/installed at client sites
• Compliance checking	installed at client sites	installed at client sites	installed at client sites
• Billing and accounts receivable	not available	installed at client sites	installed at client sites
• Materials management and inventory	not available	installed at client sites	installed at client sites
• Test partition/Remote faxing or printing	installed at client sites/not available	installed at client sites/installed at client sites	installed at client sites/installed at client sites
• HIPAA-standard transaction formats	—	available but not installed	installed at client sites
• Web-based remote inquiry of reports/Web access for order entry	installed at client sites/installed at client sites	installed at client sites/installed at client sites	installed at client sites/installed at client sites
• Specimen management and tracking	installed at client sites	installed at client sites	installed at client sites
• Compliance and quality assurance tools	installed at client sites	installed at client sites	installed at client sites
• Environmental health/Business analytics	not available/not available	installed at client sites/installed at client sites	not available/installed at client sites
• Reference lab interface for orders, results return, status return	installed at client sites	installed at client sites	installed at client sites
LIS can report lab data that is focus of meaningful use guidelines to public health agencies via automated electronic transmission using specified formats**** for:			
• Microbiology data (culture and sensitivity)	yes	yes	yes
• Other reportable diseases (blood lead, immunology, etc.)	yes	yes	yes
• Tumor diagnosis and case data to regional cancer registry*****	yes	yes	yes
LIS provides database flag or field to set time parameters for retaining test results online without being archived?	no	yes (all test results can be retained online [not archived] for the life of LIS)	yes (all test results can be retained online [not archived] for the life of LIS)
• How test results retained online are made available	—	query, report, rules	rules
Lab automation systems or workcells to which LIS has a direct interface	Beckman Coulter, Siemens, Olympus America, Roche Diagnostics	Beckman Coulter, Siemens, Ortho Clinical Diagnostics, Olympus America, Roche Diagnostics, Abbott	Beckman Coulter, Siemens, Ortho, Labotix Automation, Thermo Scientific, Olympus, Roche, Abbott, others
LIS allows third-party updates of tables and rules	no	yes (using standard code tables; other options)	yes (using API functionality)
LIS allows for image capture, display, reporting	no	yes	yes
LIS provides indexed field in each test definition for LOINC code	yes	yes	yes
Provide LOINC dictionary for each new installation	no	no	yes
LIS supports use of SNOMED CT	yes	yes	yes
Use of third-party middleware for LIS–instrument interfaces	no (interface directly)	combination of direct interfaces and middleware	no (interface directly)
Provide LIS clients with company's own positive patient ID software to identify patients and blood specimens collected at bedside	no	no	no
• LIS interfaces to third-party positive patient ID software used at bedside	no	yes	yes
Source code/User group that meets on established schedule	no/no	optional/yes (in person)	escrow/yes (via webinar, conference call, and in person)
Methods by which users can tailor LIS in their own setting	—	ad hoc query tools, user-defined interfaces, dictionary settings, rules engine, workflow-configuration tools, others	ad hoc query tools, user-defined interfaces, dictionary settings
Standard software maintenance fee covers periodic updates to LIS	yes	yes	yes
Fee for software modifications to comply with federal regulations and laws	standard (no charge)	standard (no charge)	standard (no charge)
LIS functionality available via ASP or cloud-based data center	no	available as a local server or an ASP or cloud-based product (client's option)	available as a local server or an ASP or cloud-based product (client's option)
Cost for smallest existing LIS install (includes hardware, software, install, training)	\$10,000 (annual maintenance fee, \$1,000)	\$85,000 (annual maintenance fee, \$6,000)	\$15,000 (annual maintenance fee, \$42,000)
Cost for largest existing LIS install (includes hardware, software, install, training)	\$150,000 (annual maintenance fee, \$18,000)	\$5,000,000 (annual maintenance fee, \$450,000)	\$100,000 (annual maintenance fee, \$2,000,000)
Distinguishing product features (supplied by company)	<ul style="list-style-type: none"> <li>intuitive; easy to learn and use</li> <li>flexible; user definable</li> <li>high value; reliable quality</li> </ul>	<ul style="list-style-type: none"> <li>empower customers to improve agility to quickly respond to changing business needs</li> <li>powerful workflow-management tools</li> <li>standard user license includes integrated tools for molecular, cytogenetics, microbiology, biobank</li> </ul>	<ul style="list-style-type: none"> <li>complete end-to-end laboratory operating platform</li> <li>highly configurable; powerful rule and automation engine</li> <li>no upfront licensing fees; pay for what you use</li> </ul>
*any brand or model			
**generate >500,000 billed tests annually, or >200 bed hospitals, or >500 requisitions per day			
***generate <500,000 billed tests annually, or <200 bed hospitals, or <500 requisitions per day			
****HL7 2.5.1, LOINC, SNOMED, etc.			
*****using NAACCR Pathology Laboratory Electronic Reporting, vol. V, version 4.0, April 2011 ed.			
Note: a dash as an answer means company did not respond or question is not applicable			

<sup>†</sup>formerly LigoLab AP/LIS 3.5



Part 7 of 11	<b>NeTLIMS</b> <b>Noa Kolp</b> nkolp@netlims.com <b>Ridgefield Park, NJ</b> <b>201-894-5300</b> www.netlims.com	<b>NovoPath</b> <b>Rick Callahan</b> rcallahan@novopath.com <b>Princeton, NJ</b> <b>877-668-6123</b> www.novopath.com	<b>Orchard Software Corp.</b> <b>Kerry Foster</b> kfoster@orchardsoft.com <b>Carmel, IN</b> <b>800-856-1948</b> www.orchardsoft.com
See <a href="http://captodayonline.com/productguides">captodayonline.com/productguides</a> for an interactive version of guide			
Name of laboratory information system	LabOS <sup>†</sup>	NovoPath Clinical Pathology Module	Orchard Harvest LIS
First ever*/Most recent LIS installation (based on August 2018 survey deadline)	1996/August 2018	1999/March 2018	1993/August 2018
Total No. of contracts for sites operating LIS	27	2	1,218
No. of sales of LIS between August 2017–August 2018	2	2	135
Total No. of sites operating LIS (U.S. hospitals/U.S. independent labs/U.S. clinics or group practices/U.S. public health labs/other U.S. sites/foreign sites)	40 (0/10/0/0/30)	2 (0/2/0/0/0)	1,443 (187/175/916/28/133—correctional facilities, nursing homes, university student health, others/4)
• Types/Locations of foreign installations	hospitals, HMOs, commercial labs/Israel, India, South Africa	—	physician office lab, reference lab, educational program/Canada
No. of LIS installations between August 2017–August 2018	6	2	61
Percentage of high-volume** sites installed/Low-volume*** sites installed	100%/0	50%/50%	40%/60%
Percentage of sites where company has no other software installed	100%	0	unknown
Foreign countries where company actively markets LIS	Israel, Africa	worldwide	none
Provide list of installed client sites to potential customers on request	yes (partial list of comparable sites)	yes (partial list of comparable sites)	yes (partial list of comparable sites)
Clients restricted from sharing their experience with company or LIS	no	no	no
No. of employees in entire company	140	49	263
• No. of employees dedicated to LIS development, installation, and support	115	—	182
Range in No. of user workstations in sites operating LIS	16–600 (average, 120)	21–100 (average, 60)	1–500 (average, 30)
Central hardware or service type	IBM, Dell, Hewlett-Packard, others	Windows server	HP Business Class in a client/server environment
How central server failure is handled	system continues uninterrupted	manual intervention necessary to restore operation or system continues uninterrupted (user's option)	manual intervention necessary to restore operation or system continues uninterrupted (user's option)
Programming language(s)	C++, JavaScript	Microsoft Visual Studio	4th Dimension with portions in C, C++, HTML; some modules in Java
Operating system(s)	Windows Server 2003 and higher	Windows	Windows 7+, Windows Server 2008+
Databases and tools	MS SQL 2005 and higher, Oracle 10 and higher, MySQL	Microsoft SQL, Oracle	4D
System includes full transaction logging	yes	yes	yes
Languages (other than English) offered on system	Hebrew, Arabic, Spanish, French, African languages	all romance/Latin languages supported by Windows; fields customizable to most languages <sup>†</sup>	none
Features/modules incorporated in product:			
• Chemistry/Hematology	installed at client sites/installed at client sites	installed at client sites/installed at client sites	installed at client sites/installed at client sites
• Bar-coded collection labels	installed at client sites	installed at client sites	installed at client sites
• Microbiology/Public health microbiology	installed at client sites/installed at client sites	available but not installed/available but not installed	installed at client sites/installed at client sites
• Blood bank donor/Blood bank transfusion	installed at client sites/installed at client sites	not available/not available	not available/not available
• Surgical pathology/Cytology	installed at client sites/installed at client sites	installed at client sites/installed at client sites	installed at client sites/installed at client sites
• Molecular pathology/Cytogenetics/Flow cytometry	installed at client sites/installed at client sites/installed at client sites	installed at client sites/installed at client sites/installed at client sites	installed at client sites/installed at client sites/installed at client sites
• EHR interface for admission/discharge/transfer (ADT)	installed at client sites	installed at client sites	installed at client sites
• EHR interface for order entry/EHR interface for results reporting	installed at client sites/installed at client sites	installed at client sites/installed at client sites	installed at client sites/installed at client sites
• EHR interface for packaging results into PDF format	installed at client sites	installed at client sites	installed at client sites
• EHR interface for packaging results into CDA1 format/CDA2 format	installed at client sites/installed at client sites	not available/not available	installed at client sites/installed at client sites
• Ad hoc reporting/Rules-based system	installed at client sites/installed at client sites	installed at client sites/installed at client sites	installed at client sites/installed at client sites
• Management and statistical reporting	installed at client sites	installed at client sites	installed at client sites
• Connection to provider offices/Commercial lab functionality	installed at client sites/installed at client sites	installed at client sites/installed at client sites	installed at client sites/installed at client sites
• Compliance checking	installed at client sites	installed at client sites	installed at client sites
• Billing and accounts receivable	installed at client sites	installed at client sites	not available
• Materials management and inventory	available but not installed	not available	installed at client sites
• Test partition/Remote faxing or printing	installed at client sites/installed at client sites	installed at client sites/installed at client sites	installed at client sites/installed at client sites
• HIPAA-standard transaction formats	installed at client sites	installed at client sites	installed at client sites
• Web-based remote inquiry of reports/Web access for order entry	installed at client sites/installed at client sites	installed at client sites/installed at client sites	installed at client sites/installed at client sites
• Specimen management and tracking	installed at client sites	installed at client sites	installed at client sites
• Compliance and quality assurance tools	installed at client sites	installed at client sites	installed at client sites
• Environmental health/Business analytics	installed at client sites/installed at client sites	installed at client sites/installed at client sites	installed at client sites/installed at client sites
• Reference lab interface for orders, results return, status return	installed at client sites	installed at client sites	installed at client sites
LIS can report lab data that is focus of meaningful use guidelines to public health agencies via automated electronic transmission using specified formats**** for:			
• Microbiology data (culture and sensitivity)	yes	yes	yes
• Other reportable diseases (blood lead, immunology, etc.)	yes	yes	yes
• Tumor diagnosis and case data to regional cancer registry*****	yes	yes	yes
LIS provides database flag or field to set time parameters for retaining test results online without being archived?	yes (all test results can be retained online [not archived] for the life of LIS)	yes (all test results can be retained online [not archived] for the life of LIS)	yes (all test results can be retained online [not archived] for the life of LIS)
• How test results retained online are made available	query, cumulative reports, order history screen	query, cumulative reports	data mining, report options, other options
Lab automation systems or workcells to which LIS has a direct interface	Beckman Coulter, Siemens, Olympus America, Roche Diagnostics, Abbott Diagnostics, Bayer, Sysmex	Beckman Coulter, Siemens, Ortho, Thermo Scientific, Olympus, Roche, Abbott, Bio-Rad, Sysmex	Beckman Coulter, Siemens, Ortho, Thermo Scientific, Olympus, Roche, Abbott, Sarstedt, Sysmex, others
LIS allows third-party updates of tables and rules	yes (using LabOS' open API)	no	no
LIS allows for image capture, display, reporting	yes	yes	yes
LIS provides indexed field in each test definition for LOINC code	yes	yes	yes
Provide LOINC dictionary for each new installation	no	no	no
LIS supports use of SNOMED CT	yes	yes	yes
Use of third-party middleware for LIS–instrument interfaces	combination of direct interfaces and middleware	yes (for all instrument interfaces)	no (interface directly)
Provide LIS clients with company's own positive patient ID software to identify patients and blood specimens collected at bedside	no	no	yes (Orchard Collect for sample collection)
• LIS interfaces to third-party positive patient ID software used at bedside	yes	yes	yes
Source code/User group that meets on established schedule	no/yes (via webinar)	escrow/yes (via webinar)	escrow/yes (in person)
Methods by which users can tailor LIS in their own setting	ad hoc query tools, user-defined interfaces, dictionary settings	ad hoc query tools, dictionary settings, report and application formatting, others	ad hoc query tools, dictionary settings, user-defined security, rules, workflow, templates, others
Standard software maintenance fee covers periodic updates to LIS	—	yes (covers all patches and minor updates)	yes
Fee for software modifications to comply with federal regulations and laws	standard (no charge)	standard (no charge)	standard (no charge)
LIS functionality available via ASP or cloud-based data center	available as a local server or an ASP or cloud-based product (client's option); for the latter, professional services charged hourly, usage fee based on volume per lab type	available as a local server or an ASP or cloud-based product (client's option)	no
Cost for smallest existing LIS install (includes hardware, software, install, training)	\$125,000 (annual maintenance fee, \$25,000)	—	\$35,000 (annual maintenance fee, \$4,000)
Cost for largest existing LIS install (includes hardware, software, install, training)	\$6,000,000 (annual maintenance fee, \$1,200,000)	—	\$1,400,000 (annual maintenance fee, \$168,000)
Distinguishing product features (supplied by company)	<ul style="list-style-type: none"> <li>• end-to-end fully integrated solution that automates processes, alerts, and actions</li> <li>• technology and architecture eliminate the need for maintenance downtime or data archiving/purging</li> <li>• full support for POCT; both Web and cloud based</li> </ul>	<ul style="list-style-type: none"> <li>• complete solution (anatomic pathology and clinical pathology LIS)</li> <li>• specimen tracking and management</li> <li>• powerful dashboard functionality to manage operational progress</li> </ul>	<ul style="list-style-type: none"> <li>• expert interfacing and integration capabilities with instruments, EHR and host systems, more</li> <li>• robust rules-based decision support logic and data-mining technology for data analytics</li> <li>• an industry leader in product development, training, service, and support</li> </ul>
*any brand or model			
**generate >500,000 billed tests annually, or >200 bed hospitals, or >500 requisitions per day			
***generate <500,000 billed tests annually, or <200 bed hospitals, or <500 requisitions per day			
****HL7 2.5.1, LOINC, SNOMED, etc.			
*****using NAACCR Pathology Laboratory Electronic Reporting, vol. V, version 4.0, April 2011 ed.			
Note: a dash as an answer means company did not respond or question is not applicable			
	<sup>†</sup> formerly AutoLims	<sup>†</sup> language support built on top of OS in use	

Part 8 of 11	<b>Orchard Software Corp.</b> <b>Kerry Foster</b> kfoster@orchardsoft.com <b>Carmel, IN</b> <b>800-856-1948</b> www.orchardsoft.com	<b>Pathagility</b> <b>Mark McCuin</b> mark@pathagility.com <b>Little Rock, AR</b> <b>888-222-2792</b> www.pathagility.com	<b>Quality Software Systems</b> <b>Jeff Caspari</b> jcaspari@labhealth.com <b>Spring Valley, NY</b> <b>845-352-4313</b> www.labhealth.com
See <a href="http://captodayonline.com/productguides">captodayonline.com/productguides</a> for an interactive version of guide			
Name of laboratory information system	Orchard Sequoia	WorkPath	LabHealth
First ever*/Most recent LIS installation (based on August 2018 survey deadline)	1993/anticipated 2019	2008/August 2018	1984/2018
Total No. of contracts for sites operating LIS	0 (new product)	—	90
No. of sales of LIS between August 2017–August 2018	2	3	13
Total No. of sites operating LIS (U.S. hospitals/U.S. independent labs/U.S. clinics or group practices/U.S. public health labs/other U.S. sites/foreign sites)	0	30 (0/30/0/0/0/0)	90 (0/90/0/0/0/0)
• Types/Locations of foreign installations	—	—	—
No. of LIS installations between August 2017–August 2018	0	3	13
Percentage of high-volume** sites installed/Low-volume*** sites installed	0/0	25%/75%	60%/40%
Percentage of sites where company has no other software installed	—	20%	30%
Foreign countries where company actively markets LIS	none	none	none
Provide list of installed client sites to potential customers on request	yes (will provide partial list of comparable sites)	yes (partial list of comparable sites)	no (information is confidential)
Clients restricted from sharing their experience with company or LIS	no	no	no
No. of employees in entire company	263	—	15
• No. of employees dedicated to LIS development, installation, and support	182	—	12
Range in No. of user workstations in sites operating LIS	—	2–500 (average, 50)	4–95 (average, 20)
Central hardware or service type	HP Business Class	Amazon Web Services	Dell servers
How central server failure is handled	manual intervention necessary to restore operation or system continues uninterrupted (user's option)	system continues uninterrupted	manual intervention necessary to restore operation or system continues uninterrupted (user's option)
Programming language(s)	SQL, Java	Python, Java	Visual Basic .Net
Operating system(s)	Windows	agnostic—Linux, Windows, Mac, BSD, Solaris, others	Windows
Databases and tools	Microsoft SQL	agnostic—MySQL, PostgreSQL, SQLite, Oracle	SQL
System includes full transaction logging	yes	yes	yes
Languages (other than English) offered on system	none	—	—
Features/modules incorporated in product:			
• Chemistry/Hematology	available but not installed/available but not installed	installed at client sites/installed at client sites	installed at client sites/installed at client sites
• Bar-coded collection labels	available but not installed	installed at client sites	installed at client sites
• Microbiology/Public health microbiology	under development/under development	installed at client sites/available but not installed	installed at client sites/installed at client sites
• Blood bank donor/Blood bank transfusion	not available/not available	available but not installed/available but not installed	not available/not available
• Surgical pathology/Cytology	under development/under development	installed at client sites/installed at client sites	not available/available but not installed
• Molecular pathology/Cytogenetics/Flow cytometry	under development/under development/ under development	installed at client sites/installed at client sites/ installed at client sites	under development/under development/ under development
• EHR interface for admission/discharge/transfer (ADT)	available but not installed	installed at client sites	installed at client sites
• EHR interface for order entry/EHR interface for results reporting	available but not installed/available but not installed	installed at client sites/installed at client sites	installed at client sites/installed at client sites
• EHR interface for packaging results into PDF format	available but not installed	installed at client sites	installed at client sites
• EHR interface for packaging results into CDA1 format/CDA2 format	available but not installed/available but not installed	installed at client sites/installed at client sites	installed at client sites/installed at client sites
• Ad hoc reporting/Rules-based system	available but not installed/available but not installed	installed at client sites/installed at client sites	installed at client sites/installed at client sites
• Management and statistical reporting	available but not installed	installed at client sites	installed at client sites
• Connection to provider offices/Commercial lab functionality	available but not installed/—	installed at client sites/installed at client sites	installed at client sites/installed at client sites
• Compliance checking	available but not installed	installed at client sites	installed at client sites
• Billing and accounts receivable	not available	not available	installed at client sites
• Materials management and inventory	available but not installed	not available	available but not installed
• Test partition/Remote faxing or printing	available but not installed/available but not installed	installed at client sites/installed at client sites	installed at client sites/installed at client sites
• HIPAA-standard transaction formats	available but not installed	installed at client sites	installed at client sites
• Web-based remote inquiry of reports/Web access for order entry	available but not installed/available but not installed	installed at client sites/installed at client sites	installed at client sites/installed at client sites
• Specimen management and tracking	available but not installed	installed at client sites	installed at client sites
• Compliance and quality assurance tools	available but not installed	installed at client sites	installed at client sites
• Environmental health/Business analytics	available but not installed/available but not installed	available but not installed/installed at client sites	under development/installed at client sites
• Reference lab interface for orders, results return, status return	available but not installed	installed at client sites	installed at client sites
LIS can report lab data that is focus of meaningful use guidelines to public health agencies via automated electronic transmission using specified formats**** for:			
• Microbiology data (culture and sensitivity)	under development	yes	yes
• Other reportable diseases (blood lead, immunology, etc.)	under development	yes	yes
• Tumor diagnosis and case data to regional cancer registry*****	under development	yes	no
LIS provides database flag or field to set time parameters for retaining test results online without being archived?	yes (all test results can be retained online [not archived] for the life of LIS)	yes, for genetic tests (genetic test results can be retained online [not archived] for the life of LIS)	yes (all test results can be retained online [not archived] for the life of LIS)
• How test results retained online are made available	data mining, rules-based decision support, report options	reporting	lab reports, cumulative reports, client services, fax reports, EMR interface transmissions, other options
Lab automation systems or workcells to which LIS has a direct interface	Beckman Coulter, Siemens, Ortho Clinical Diagnostics, Labotix Automation, Thermo Scientific, Olympus America, Roche Diagnostics, Abbott Diagnostics, Sarstedt	none (planned for future)	Beckman Coulter, Siemens, Ortho Clinical Diagnostics, Thermo Scientific, Olympus America, Roche Diagnostics, Abbott Diagnostics
LIS allows third-party updates of tables and rules	no	no	no
LIS allows for image capture, display, reporting	yes	yes	yes
LIS provides indexed field in each test definition for LOINC code	yes	no	yes
Provide LOINC dictionary for each new installation	no	no	yes
LIS supports use of SNOMED CT	yes	yes	yes
Use of third-party middleware for LIS—instrument interfaces	no (interface directly)	combination of direct interfaces and middleware	no (interface directly)
Provide LIS clients with company's own positive patient ID software to identify patients and blood specimens collected at bedside	yes (Orchard Collect for sample collection)	no	no
• LIS interfaces to third-party positive patient ID software used at bedside	yes	yes	—
Source code/User group that meets on established schedule	escrow/yes (will meet in person)	no/yes (via conference call)	no/no
Methods by which users can tailor LIS in their own setting	ad hoc query tools, dictionary settings, user-defined security, rules, workflow, templates, others	ad hoc query tools, case type property tools	ad hoc query tools, user-defined interfaces, dictionary settings
Standard software maintenance fee covers periodic updates to LIS	yes	yes	yes
Fee for software modifications to comply with federal regulations and laws	standard (no charge)	standard (no charge)	optional (extra cost)
LIS functionality available via ASP or cloud-based data center	available as a local server or an ASP or cloud-based product (client's option)	yes (only option); based on implementation fee and monthly or annual volume-based subscription fee	available as a local server or an ASP or cloud-based product (client's option)
Cost for smallest existing LIS install (includes hardware, software, install, training)	\$250,000 (annual maintenance fee, \$35,000)	—	\$20,000 (annual maintenance fee, \$6,000)
Cost for largest existing LIS install (includes hardware, software, install, training)	\$4,200,000 (annual maintenance fee, \$500,000)	—	\$95,000 (annual maintenance fee, \$30,000)
Distinguishing product features (supplied by company)	<ul style="list-style-type: none"> <li>expert interfacing and integration capabilities with instruments, EMR systems, host systems, departments, and reference labs</li> <li>robust rules-based decision support logic and data-mining technology for data analytics</li> <li>an industry leader in product development, training, service, and support</li> </ul>	<ul style="list-style-type: none"> <li>supports any testing type—software-as-a-service; fast implementations; low total cost of ownership</li> <li>full menu of integrated connectivity and distribution options for laboratories and other providers</li> <li>dynamic system for reference lab relationships</li> </ul>	<ul style="list-style-type: none"> <li>true browser-based LIS with comprehensive lab and billing modules</li> <li>complete toxicology and pain-management module totally integrated</li> <li>company customizes client Web portal, LIS, billing, and sales portal for each customer</li> </ul>
*any brand or model			
**generate >500,000 billed tests annually, or >200 bed hospitals, or >500 requisitions per day			
***generate <500,000 billed tests annually, or <200 bed hospitals, or <500 requisitions per day			
****HL7 2.5.1, LOINC, SNOMED, etc.			
*****using NAACCR Pathology Laboratory Electronic Reporting, vol. V, version 4.0, April 2011 ed.			
Note: a dash as an answer means company did not respond or question is not applicable			



Part 9 of 11	SCC Soft Computer Ellie Vahman ellie@softcomputer.com Clearwater, FL 800-763-8352 www.softcomputer.com	Schuyler House Janet Chennault jlc@schuylerhouse.com Valencia, CA 800-706-0266 www.schuylab.com	Seacoast Laboratory Data Systems Lisa M. Turgeon lisat@sldsi.com Portsmouth, NH 603-431-4114 www.sldsi.com
See <a href="http://captodayonline.com/productguides">captodayonline.com/productguides</a> for an interactive version of guide			
Name of laboratory information system	SoftLab	SchuyLab	SurroundLab Plus
First ever*/Most recent LIS installation (based on August 2018 survey deadline)	1985/August 2018	1994/August 2018	2000/July 2018
Total No. of contracts for sites operating LIS	324	1,067	—
No. of sales of LIS between August 2017–August 2018	8	19	—
Total No. of sites operating LIS (U.S. hospitals/U.S. independent labs/U.S. clinics or group practices/U.S. public health labs/other U.S. sites/foreign sites)	1,039 (723/41/87/3/0/185)	1,067 (76/298/565/0/55—schools, vet labs/73)	71 (0/71/0/0/0/0)
• Types/Locations of foreign installations	university hospitals, public health, commercial labs, others/Belgium, Brazil, Canada, France, China, Jamaica, Malaysia, Singapore, Switzerland, U.K.	hospitals, physician office labs, reference labs/Guam, Caribbean, Canada, Africa, Pacific Rim, Southeast Asia	—
No. of LIS installations between August 2017–August 2018	14	19	1
Percentage of high-volume** sites installed/Low-volume*** sites installed	65%/35%	40%/60%	75%/25%
Percentage of sites where company has no other software installed	100%	100%	4%
Foreign countries where company actively markets LIS	worldwide	Guam, Caribbean, Canada, Africa, Pacific Rim, Southeast Asia	none
Provide list of installed client sites to potential customers on request	yes (partial list of comparable sites)	yes (with client's permission)	yes (partial list of comparable sites)
Clients restricted from sharing their experience with company or LIS	no	no	no
No. of employees in entire company	2,000	29	25
• No. of employees dedicated to LIS development, installation, and support	1,900	20	8
Range in No. of user workstations in sites operating LIS	10–4,000+ (average, 80)	1–80 (average, 3)	10–250 (average, 75)
Central hardware or service type	IBM Power Series (AIX/Unix), Intel x64 (Linux), SaaS	any PC (Dell recommended)	physical or virtual servers or cloud based
How central server failure is handled	system continues uninterrupted	manual intervention necessary to restore operation	manual intervention necessary to restore operation or system continues uninterrupted (user's option)
Programming language(s)	C, C++, C#, Java	C	M-Caché
Operating system(s)	server: IBM AIX, Linux; workstation: Microsoft Windows, Web browser (HTML5)	Windows 7, 8, 10, XP, Vista	Linux, Windows
Databases and tools	Oracle, Oracle WebLogic, OAS, Tomcat, ServiceMix	FairCom C-Tree, Pervasive Btrieve	GT.M, KB_SQL
System includes full transaction logging	yes	no	yes
Languages (other than English) offered on system	French, Portuguese	ABN forms available in Spanish	none
Features/modules incorporated in product:			
• Chemistry/Hematology	installed at client sites/installed at client sites	installed at client sites/installed at client sites	installed at client sites/installed at client sites
• Bar-coded collection labels	installed at client sites	installed at client sites	installed at client sites
• Microbiology/Public health microbiology	installed at client sites/installed at client sites	installed at client sites/not available	installed at client sites/installed at client sites
• Blood bank donor/Blood bank transfusion	installed at client sites/installed at client sites	not available in U.S./not available in U.S.	not available/not available
• Surgical pathology/Cytology	installed at client sites/installed at client sites	installed at client sites/installed at client sites	not available/installed at client sites
• Molecular pathology/Cytogenetics/Flow cytometry	installed at client sites/installed at client sites/installed at client sites	under development/under development/installed at client sites	not available/available but not installed/available but not installed
• EHR interface for admission/discharge/transfer (ADT)	installed at client sites	installed at client sites	installed at client sites
• EHR interface for order entry/EHR interface for results reporting	installed at client sites/installed at client sites	installed at client sites/installed at client sites	installed at client sites/installed at client sites
• EHR interface for packaging results into PDF format	installed at client sites	installed at client sites	installed at client sites
• EHR interface for packaging results into CDA1 format/CDA2 format	not available/not available	installed at client sites/installed at client sites	installed at client sites/installed at client sites
• Ad hoc reporting/Rules-based system	installed at client sites/installed at client sites	—/available but not installed	installed at client sites/installed at client sites
• Management and statistical reporting	installed at client sites	installed at client sites	installed at client sites
• Connection to provider offices/Commercial lab functionality	installed at client sites/installed at client sites	installed at client sites/installed at client sites	installed at client sites/installed at client sites
• Compliance checking	installed at client sites	installed at client sites	installed at client sites
• Billing and accounts receivable	installed at client sites	installed at client sites	not available
• Materials management and inventory	installed at client sites	under development	not available
• Test partition/Remote faxing or printing	installed at client sites/installed at client sites	under development/installed at client sites	installed at client sites/installed at client sites
• HIPAA-standard transaction formats	installed at client sites	installed at client sites	installed at client sites
• Web-based remote inquiry of reports/Web access for order entry	installed at client sites/installed at client sites	installed at client sites/installed at client sites	installed at client sites/installed at client sites
• Specimen management and tracking	installed at client sites	under development	installed at client sites
• Compliance and quality assurance tools	installed at client sites	under development	installed at client sites
• Environmental health/Business analytics	installed at client sites/installed at client sites	under development/under development	not available/installed at client sites
• Reference lab interface for orders, results return, status return	installed at client sites	installed at client sites	installed at client sites
LIS can report lab data that is focus of meaningful use guidelines to public health agencies via automated electronic transmission using specified formats**** for:			
• Microbiology data (culture and sensitivity)	yes	yes	yes
• Other reportable diseases (blood lead, immunology, etc.)	yes	yes	yes
• Tumor diagnosis and case data to regional cancer registry*****	yes	no	no
LIS provides database flag or field to set time parameters for retaining test results online without being archived?	yes (all test results can be retained online [not archived] for the life of LIS)	yes, for genetic tests (genetic test results can be retained online [not archived] for the life of LIS)	yes (all test results can be retained online [not archived] for the life of LIS)
• How test results retained online are made available	query, reporting, audit trail	—	—
Lab automation systems or workcells to which LIS has a direct interface	Beckman Coulter, Siemens, Ortho, Labotix Automation, Thermo Scientific, Olympus, Roche, Abbott, Tecan	Beckman Coulter, Siemens, Thermo Scientific, Olympus, Roche, Abbott, Bayer	Beckman Coulter, Siemens, Ortho Clinical Diagnostics, Olympus America, Roche Diagnostics, Abbott
LIS allows third-party updates of tables and rules	yes (using 3M/Info X, LOINC, CAP, others)	yes (using CodeMap)	yes (using LOINC, CPT, ICD-10)
LIS allows for image capture, display, reporting	yes	yes	yes
LIS provides indexed field in each test definition for LOINC code	yes	yes	yes
Provide LOINC dictionary for each new installation	yes	no	no
LIS supports use of SNOMED CT	yes	yes	yes
Use of third-party middleware for LIS–instrument interfaces	no (interface directly)	combination of direct interfaces and middleware	combination of direct interfaces and middleware
Provide LIS clients with company's own positive patient ID software to identify patients and blood specimens collected at bedside	yes (SoftID)	—	no
• LIS interfaces to third-party positive patient ID software used at bedside	yes	yes	yes
Source code/User group that meets on established schedule	escrow/yes (in person)	escrow/yes (via conference call)	no/no
Methods by which users can tailor LIS in their own setting	ad hoc query tools, dictionary settings, rules engine, workflow engine, business intelligence tools, others	user-defined interfaces	ad hoc query tools, user-defined interfaces, dictionary settings
Standard software maintenance fee covers periodic updates to LIS	yes	yes	yes (annual base code updates)
Fee for software modifications to comply with federal regulations and laws	standard (no charge)	standard (no charge)	optional (extra cost)
LIS functionality available via ASP or cloud-based data center	available as a local server or an ASP or cloud-based product (client's option); for SaaS, user-based licensing	no	available as a local server or an ASP or cloud-based product (client's option); the latter based on number of interfaces and user licenses
Cost for smallest existing LIS install (includes hardware, software, install, training)	—	free (annual maintenance fee, \$120)	—
Cost for largest existing LIS install (includes hardware, software, install, training)	—	\$265,000 (annual maintenance fee, \$37,000)	—
Distinguishing product features (supplied by company)	<ul style="list-style-type: none"> <li>• single-platform LIS; single patient record across CP, AP, genetics with full specimen chain of custody</li> <li>• integrated content reporting across all disciplines</li> <li>• multi-site, multi-time zone with master patient index; definable workflow protocols and rules</li> </ul>	<ul style="list-style-type: none"> <li>• easy-to-use, comprehensive LIS, including electronic billing; integrates lab results with other systems</li> <li>• optional modules that can be added at any time</li> <li>• can handle the workload of any size laboratory</li> </ul>	<ul style="list-style-type: none"> <li>• commercial lab centric; scalable; fully customizable</li> <li>• optional modules for paperless microbiology, quality control, cytology/Pap processing, more</li> <li>• complete product suite for commercial labs includes optional AR software, Web portals for patient and client</li> </ul>

Part 10 of 11	<b>SimpleLIMS</b> Kannan info@simplelims.com San Diego, CA 619-354-1009 www.simplelims.com	<b>Sunquest Information Systems</b> S. Clohessy stephanie.clohessy@sunquestinfo.com Tucson, AZ 520-570-2000 www.sunquestinfo.com	<b>TECHNIDATA</b> Allan Apfeld allan.apfeld@technidata-web.com Tucson, AZ 514-270-7777 www.technidata-web.com
See <a href="http://captodayonline.com/productguides">captodayonline.com/productguides</a> for an interactive version of guide			
Name of laboratory information system	SimpleLIMS	Sunquest Laboratory	TD-NexLabs <sup>†</sup>
First ever*/Most recent LIS installation (based on August 2018 survey deadline)	2012/August 2018	1979/May 2018	1973/May 2018
Total No. of contracts for sites operating LIS	21	—	575
No. of sales of LIS between August 2017–August 2018	2	78	3
Total No. of sites operating LIS (U.S. hospitals/U.S. independent labs/U.S. clinics or group practices/U.S. public health labs/other U.S. sites/foreign sites)	21 (0/19/0/0/0/2)	—	776 (5/5/0/1/0/765)
• Types/Locations of foreign installations	research labs/—	—	clinical labs/Canada, France, U.K., Belgium, Netherlands, Italy, Spain, Germany, many others
No. of LIS installations between August 2017–August 2018	2	—	10
Percentage of high-volume** sites installed/Low-volume*** sites installed	40%/60%	70%/30%	90%/10%
Percentage of sites where company has no other software installed	—	34%	25%
Foreign countries where company actively markets LIS	India, Netherlands, China	Canada, U.K., Ireland, Middle East, Australia	Thailand, Switzerland, Kuwait, Iceland, many others
Provide list of installed client sites to potential customers on request	yes (complete list but prospective client must sign a nondisclosure agreement)	yes (partial list of comparable sites)	yes (partial list of comparable sites)
Clients restricted from sharing their experience with company or LIS	no	no	no
No. of employees in entire company	18	—	185
• No. of employees dedicated to LIS development, installation, and support	14	—	130
Range in No. of user workstations in sites operating LIS	3–1,600 (average, 50)	4–500 (average, 300)	4–500+ (average, 60)
Central hardware or service type	cloud, ASP	Hewlett-Packard, IBM, virtual servers	Windows, Linux, Unix
How central server failure is handled	system continues uninterrupted	manual intervention necessary to restore operation	manual intervention necessary to restore operation or system continues uninterrupted (user's option)
Programming language(s)	JavaScript, Python, PHP	Caché, Caché Script, Standard C/C++, Visual Basic, Visual C++, Active X, HTML with dynamic HTML content	C++, .Net, C#, Java
Operating system(s)	browser-based client, Linux servers	AIX, HP-UX, OpenVMS, Linux, Windows	Windows, Linux, Unix
Databases and tools	SQL, NoSQL	InterSystems Caché	SQL server, Oracle
System includes full transaction logging	yes	yes	yes
Languages (other than English) offered on system	—	—	Spanish, French, Italian, Korean, Chinese, many others
Features/modules incorporated in product:			
• Chemistry/Hematology	installed at client sites/—	installed at client sites/installed at client sites	installed at client sites/installed at client sites
• Bar-coded collection labels	installed at client sites	installed at client sites	installed at client sites
• Microbiology/Public health microbiology	installed at client sites/—	installed at client sites/installed at client sites	installed at client sites/installed at client sites
• Blood bank donor/Blood bank transfusion	—	installed at client sites/installed at client sites	not available/not available in U.S.
• Surgical pathology/Cytology	installed at client sites/installed at client sites	installed at client sites/installed at client sites	installed at client sites/installed at client sites
• Molecular pathology/Cytogenetics/Flow cytometry	installed at client sites/installed at client sites/ installed at client sites	installed at client sites/installed at client sites/ installed at client sites	installed at client sites/installed at client sites/ installed at client sites
• EHR interface for admission/discharge/transfer (ADT)	installed at client sites	installed at client sites	installed at client sites
• EHR interface for order entry/EHR interface for results reporting	installed at client sites/installed at client sites	installed at client sites/installed at client sites	installed at client sites/installed at client sites
• EHR interface for packaging results into PDF format	installed at client sites	installed at client sites	installed at client sites
• EHR interface for packaging results into CDA1 format/CDA2 format	installed at client sites/available but not installed	installed at client sites/installed at client sites	not available/not available
• Ad hoc reporting/Rules-based system	installed at client sites/installed at client sites	installed at client sites/installed at client sites	installed at client sites/installed at client sites
• Management and statistical reporting	installed at client sites	installed at client sites	installed at client sites
• Connection to provider offices/Commercial lab functionality	installed at client sites/installed at client sites	installed at client sites/installed at client sites	installed at client sites/installed at client sites
• Compliance checking	installed at client sites	installed at client sites	installed at client sites
• Billing and accounts receivable	installed at client sites	installed at client sites	installed at client sites
• Materials management and inventory	installed at client sites	installed at client sites	not available
• Test partition/Remote faxing or printing	installed at client sites/installed at client sites	installed at client sites/installed at client sites	installed at client sites/installed at client sites
• HIPAA-standard transaction formats	installed at client sites	installed at client sites	installed at client sites
• Web-based remote inquiry of reports/Web access for order entry	installed at client sites/installed at client sites	installed at client sites/installed at client sites	installed at client sites/installed at client sites
• Specimen management and tracking	installed at client sites	installed at client sites	installed at client sites
• Compliance and quality assurance tools	installed at client sites	installed at client sites	installed at client sites
• Environmental health/Business analytics	—/installed at client sites	installed at client sites/installed at client sites	in testing phase/installed at client sites
• Reference lab interface for orders, results return, status return	installed at client sites	installed at client sites	installed at client sites
LIS can report lab data that is focus of meaningful use guidelines to public health agencies via automated electronic transmission using specified formats**** for:			
• Microbiology data (culture and sensitivity)	yes	yes	yes
• Other reportable diseases (blood lead, immunology, etc.)	yes	yes	yes
• Tumor diagnosis and case data to regional cancer registry*****	yes	yes	yes
LIS provides database flag or field to set time parameters for retaining test results online without being archived?	yes (all test results can be retained online [not archived] for the life of LIS)	yes, for user-defined tests (user-defined test results can be retained online [not archived] for the life of LIS)	no
• How test results retained online are made available	cumulative reports	query, cumulative reports, expert rules, other options	preliminary reports, query, cumulative reports
Lab automation systems or workcells to which LIS has a direct interface	Beckman Coulter, Siemens, Thermo Scientific, Olympus America, Roche Diagnostics, Abbott Diagnostics	Beckman Coulter, Siemens, Ortho, Labotix Automation, Olympus, Roche, Abbott, others	Beckman Coulter, Siemens, Ortho Clinical Diagnostics, Roche Diagnostics, Abbott Diagnostics
LIS allows third-party updates of tables and rules	—	yes (using 3M, CAP, AMA)	no
LIS allows for image capture, display, reporting	yes	yes	yes
LIS provides indexed field in each test definition for LOINC code	yes	yes	yes
Provide LOINC dictionary for each new installation	yes	yes	no
LIS supports use of SNOMED CT	yes	yes	no
Use of third-party middleware for LIS–instrument interfaces	combination of direct interfaces and middleware	combination of direct interfaces and middleware	no (interface directly)
Provide LIS clients with company's own positive patient ID software to identify patients and blood specimens collected at bedside	yes (built into SimpleLIMS)	yes (Sunquest Collect)	yes (integrated)
• LIS interfaces to third-party positive patient ID software used at bedside	no	yes	yes
Source code/User group that meets on established schedule	escrow/yes (via webinar)	escrow/yes (via webinar, conference call, and in person)	optional/yes (in person and via webinar)
Methods by which users can tailor LIS in their own setting	—	ad hoc query tools, user-defined interfaces, dictionary settings, rules, logic, dashboards	ad hoc query tools, user-defined interfaces, dictionary settings, table settings
Standard software maintenance fee covers periodic updates to LIS	yes	yes	yes (updates for priority 1 bugs or related fixes)
Fee for software modifications to comply with federal regulations and laws	standard (no charge)	standard (no charge)	standard (no charge)
LIS functionality available via ASP or cloud-based data center	yes (only option); \$10,000 per month to \$50,000 per month	available as a local server or an ASP or cloud-based product (client's option)	available as a local server or an ASP or cloud-based product (client's option); price for the latter involves start-up and installation costs, usage fee, CPU, disk space
Cost for smallest existing LIS install (includes hardware, software, install, training)	—	—	\$150,000 (annual maintenance fee, \$15,000)
Cost for largest existing LIS install (includes hardware, software, install, training)	—	—	\$3,500,000 (annual maintenance fee, \$700,000)
Distinguishing product features (supplied by company)	<ul style="list-style-type: none"> <li>100% Web based—no server installation fees or set-up fees</li> <li>includes services of software developers and designers; large systems include on-site dedicated LIS administrator</li> </ul>	<ul style="list-style-type: none"> <li>multi-lab test routing/sharing for medium to large expanding health systems and independent labs</li> <li>integrated AP and molecular/genetics solutions, EHR integration, and comprehensive outreach</li> <li>multi-disciplinary lab workflow and reporting, including precision medicine and digital pathology</li> </ul>	<ul style="list-style-type: none"> <li>business intelligence dashboard—real-time information available at user's fingertips with no need to pull reports</li> <li>alerts via email or SMS allow quick response to critical results and significant infections</li> <li>patient results portal</li> </ul>
*any brand or model			
**generate >500,000 billed tests annually, or >200 bed hospitals, or >500 requisitions per day			
***generate <500,000 billed tests annually, or <200 bed hospitals, or <500 requisitions per day			
****HL7 2.5.1, LOINC, SNOMED, etc.			
*****using NAACCR Pathology Laboratory Electronic Reporting, vol. V, version 4.0, April 2011 ed.			
Note: a dash as an answer means company did not respond or question is not applicable			

<sup>†</sup>formerly TD-Synergy



Part 11 of 11	<b>XIFIN</b> <b>Conor Ward</b> cward@xifin.com <b>San Diego, CA</b> <b>858-436-2995</b> www.xifin.com
See <a href="http://captodayonline.com/productguides">captodayonline.com/productguides</a> for an interactive version of guide	
Name of laboratory information system	Xifin LIS 5†
First ever*/Most recent LIS installation (based on August 2018 survey deadline)	2004/July 2018
Total No. of contracts for sites operating LIS	56
No. of sales of LIS between August 2017–August 2018	5
Total No. of sites operating LIS (U.S. hospitals/U.S. independent labs/U.S. clinics or group practices/U.S. public health labs/other U.S. sites/foreign sites)	53 (0/31/20/0/0/2)
• Types/Locations of foreign installations	independent labs/China, Holland
No. of LIS installations between August 2017–August 2018	3
Percentage of high-volume** sites installed/Low-volume*** sites installed	45%/55%
Percentage of sites where company has no other software installed	75%
Foreign countries where company actively markets LIS	none
Provide list of installed client sites to potential customers on request	yes (partial list of comparable sites)
Clients restricted from sharing their experience with company or LIS	no
No. of employees in entire company	310
• No. of employees dedicated to LIS development, installation, and support	32
Range in No. of user workstations in sites operating LIS	15–140 (average, 78)
Central hardware or service type	software-as-a-service (hardware independent)
How central server failure is handled	system continues uninterrupted
Programming language(s)	C#, .Net
Operating system(s)	Windows
Databases and tools	SQL
System includes full transaction logging	yes
Languages (other than English) offered on system	Chinese
Features/modules incorporated in product:	
• Chemistry/Hematology	installed at client sites/installed at client sites
• Bar-coded collection labels	installed at client sites
• Microbiology/Public health microbiology	installed at client sites/installed at client sites
• Blood bank donor/Blood bank transfusion	not available/not available
• Surgical pathology/Cytology	installed at client sites/installed at client sites
• Molecular pathology/Cytogenetics/Flow cytometry	installed at client sites/installed at client sites/installed at client sites
• EHR interface for admission/discharge/transfer (ADT)	installed at client sites
• EHR interface for order entry/EHR interface for results reporting	installed at client sites/installed at client sites
• EHR interface for packaging results into PDF format	installed at client sites
• EHR interface for packaging results into CDA1 format/CDA2 format	installed at client sites/installed at client sites
• Ad hoc reporting/Rules-based system	installed at client sites/installed at client sites
• Management and statistical reporting	installed at client sites
• Connection to provider offices/Commercial lab functionality	installed at client sites/installed at client sites
• Compliance checking	installed at client sites
• Billing and accounts receivable	installed at client sites
• Materials management and inventory	installed at client sites
• Test partition/Remote faxing or printing	installed at client sites/installed at client sites
• HIPAA-standard transaction formats	installed at client sites
• Web-based remote inquiry of reports/Web access for order entry	installed at client sites/installed at client sites
• Specimen management and tracking	installed at client sites
• Compliance and quality assurance tools	installed at client sites
• Environmental health/Business analytics	available but not installed/installed at client sites
• Reference lab interface for orders, results return, status return	installed at client sites
LIS can report lab data that is focus of meaningful use guidelines to public health agencies via automated electronic transmission using specified formats**** for:	
• Microbiology data (culture and sensitivity)	yes
• Other reportable diseases (blood lead, immunology, etc.)	yes
• Tumor diagnosis and case data to regional cancer registry*****	yes
LIS provides database flag or field to set time parameters for retaining test results online without being archived?	yes (all test results can be retained online [not archived] for the life of LIS)
• How test results retained online are made available	query, cumulative reports
Lab automation systems or workcells to which LIS has a direct interface	available but not yet operational to Siemens' LAS
LIS allows third-party updates of tables and rules	yes (using API functionality)
LIS allows for image capture, display, reporting	yes
LIS provides indexed field in each test definition for LOINC code	yes
Provide LOINC dictionary for each new installation	yes
LIS supports use of SNOMED CT	yes
Use of third-party middleware for LIS–instrument interfaces	combination of direct interfaces and middleware
Provide LIS clients with company's own positive patient ID software to identify patients and blood specimens collected at bedside	no
• LIS interfaces to third-party positive patient ID software used at bedside	yes
Source code/User group that meets on established schedule	escrow/yes (via webinar)
Methods by which users can tailor LIS in their own setting	ad hoc query tools, user-defined interfaces, dictionary settings, workflow data-entry screens, mnemonics
Standard software maintenance fee covers periodic updates to LIS	yes
Fee for software modifications to comply with federal regulations and laws	standard (no charge)
LIS functionality available via ASP or cloud-based data center	yes (only option); \$20,000–\$150,000 installation fee (based on No. of modules) and \$350 per named user, per month subscription fee
Cost for smallest existing LIS install (includes hardware, software, install, training)	—
Cost for largest existing LIS install (includes hardware, software, install, training)	—
Distinguishing product features (supplied by company)	<ul style="list-style-type: none"> <li>integrated platform, including LIS, RCM, data integration, data intelligence and visualization, and physician collaboration</li> <li>a cost-effective, Web-based SaaS solution; no major hardware or software purchases or upgrade fees</li> <li>a comprehensive solution that includes CP, AP, and molecular (including NGS) on a single platform</li> </ul>

\*any brand or model

\*\*generate &gt;500,000 billed tests annually, or &gt;200 bed hospitals, or &gt;500 requisitions per day

\*\*\*generate &lt;500,000 billed tests annually, or &lt;200 bed hospitals, or &lt;500 requisitions per day

\*\*\*\*HL7 2.5.1, LOINC, SNOMED, etc.

\*\*\*\*\*using NAACCR Pathology Laboratory Electronic Reporting, vol. V, version 4.0, April 2011 ed.

Note: a dash as an answer means company did not respond or question is not applicable

†formerly XIFIN LIS Anywhere, PathCentral AP Anywhere, eTeleNext AP Anywhere

## In the market for laboratory software or instrumentation?

### VISIT

**[captodayonline.com/productguides](http://captodayonline.com/productguides)**  
to view, print, and compare product information

The screenshot shows the CAP TODAY website interface for comparing laboratory information systems. It features a table with columns for product names (AP Easy, NovoPath, Orchard Software) and rows for various comparison criteria such as contact information, configuration, year company began selling, and features. A prominent blue callout box in the foreground reads: "Compare Products Now. Our online Product Guides make it easy to view and compare instruments and software systems feature by feature. Each listing includes an 'Add to Compare Product' link." Below the callout, a list of products is shown with an "Add To Compare Products" button.

## THESE INTERACTIVE GUIDES ARE ONLINE NOW:

### INSTRUMENTS

- AP automation: tissue processors, embedders, microtomes, stainers
- Automated molecular platforms
- Bedside glucose testing systems
- Chemistry and immunoassay analyzers for point-of-care and low-volume laboratories
- Chemistry and immunoassay analyzers for mid- and high-volume laboratories
- Coagulation analyzers
- Coagulation analyzers—point of care, self-monitoring
- Hematology analyzers
- In vitro blood gas analyzers

- Laboratory automation systems and workcells
- Next-generation sequencing instruments
- Urinalysis instrumentation

### SOFTWARE SYSTEMS

- Anatomic pathology computer systems
- Billing/accounts receivable/RCM systems
- Blood bank information systems
- Laboratory information systems
- Laboratory-provider links software
- Positive patient identification products

**[captodayonline.com/productguides](http://captodayonline.com/productguides)**