

Part 1 of 8	Altera Digital Health Jennifer Sutton jennifer.sutton@alterahealth.com Niagara Falls, NY 800-334-8534 www.alterahealth.com	Clinical Software Solutions Elaine Nordhues info@clin1.com Queen Creek, AZ 480-888-9447 www.clin1mobile.net	Clinisys/Orchard Software Steve Hurwitz shurwitz@orchardsoft.com Carmel, IN 800-856-1948 www.orchardsoft.com
Name of laboratory information system	Altera Lab	CLIN1 Laboratory	Orchard Enterprise Lab LIS
How LIS functionality is deployed	client option of remote hosting or local hosting if servers on site	client option of local server, or remote hosting, or cloud-based hosting	client option of local server, or remote hosting, or cloud-based hosting
Company provides list of client sites to potential customers on request	yes (partial list of comparable sites but prospective clients must sign a nondisclosure agreement)	yes (partial list of comparable sites but prospective clients must sign a nondisclosure agreement)	yes (partial list of comparable sites with no restrictions regarding its use)
Updates covered by standard software maintenance fee	all updates	some updates (predefined customizations invoiced separately) annually no	all updates
- Schedule for providing standard software updates to clients - Clients must install updates in specified timespans to avoid maintenance fee increase	annually or as needed yes		quarterly yes (clients are required to stay within the latest 2 versions to avoid an upgrade fee)
Fee for software modifications to comply with federal regulations and laws	no	no	no
Year company began selling LISs (any brand or model)	1999	1987	1993
Most recent LIS go-live at a client site (based on August 2025 survey deadline)	April 2025	April 2025	June 2025
Last product release or update for featured LIS	July 2025 (version 23.2 PR7)	June 2025 (version 12.6)	May 2025 (version 12.1.250506)
Total No. of contracts for sites operating LIS in U.S.	23	52	100
No. of U.S. sales and installations of LIS between August 2024–July 2025	2 sales/1 installation	2 sales/2 installations	6 sales/6 installations
Total No. of U.S. sites operating LIS (hospitals/independent labs/clinics or group practices/public health labs/other sites)	31 (31/0/0/0/0)	52 (0/45/5/0/2—education)	100 (2/9/60/1/28—universities, drug testing, pain management, COVID, veterinary, virtual, retail)
Approx. percentage of high-vol.* U.S. site installs/Low-vol.** U.S. site installs	50%/50%	20%/80%	100%/0
Foreign locations where company actively markets LIS for clinical lab use	none	none	none
Foreign locations where LIS has been installed for clinical lab use	—	Canada, United Kingdom	Canada
Human languages (other than English) supported by LIS	—	—	none
Approximate No. of employees in entire company	5,500	<20	267
Central hardware or service type	HP, IBM, Dell, Azure	client/server, software-as-a-service	HP Business Class
Programming languages and development applications or environments	C, C#, Java, JavaScript, Perl, HTML	4GL, C#	SQL, Java
Operating system(s)	Microsoft Windows, Red Hat Enterprise Linux, Oracle Linux Oracle	Microsoft Windows	Windows Server 2012 R2 SP1, 64 bit or later
Databases	Oracle	Microsoft SQL	Microsoft SQL
System includes full transaction logging	yes	yes	yes
Features/modules incorporated in product:			
Chemistry/Hematology/Print barcoded collection labels	installed at client sites (all 3 features)	installed at client sites (all 3 features)	installed at client sites (all 3 features)
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/available via WellSky, Haemonetics	available but not installed/available but not installed	available via Haemonetics/available via Haemonetics
Surgical pathology/Cytology	available via NovoPath/available via NovoPath	installed at client sites/installed at client sites	installed at client sites/installed at client sites
Molecular pathology/Cytogenetics/Flow cytometry	available via NovoPath/available via NovoPath/available via NovoPath	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	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/Client services or CRM module	installed at client sites/not available	installed at client sites/installed at client sites	installed at client sites/available via Orchard Outreach
POL link or Web portal to physician offices/Patient Web portal	not available/not available	installed at client sites/installed at client sites	available via Orchard Outreach/available via Orchard patient portal
Commercial reference lab functionality/Compliance checking	installed at client sites/not available	installed at client sites/installed at client sites	installed at client sites/installed at client sites
Comprehensive billing and accounts receivable or RCM	not available	installed at client sites	available via PGM Billing
Materials management and inventory/Test partition	not available/not available	installed at client sites/installed at client sites	installed at client sites/installed at client sites
Remote faxing/Remote 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/not available	installed at client sites/installed at client sites	installed at client sites/installed at client sites
Management and tracking of specimens within lab/Before arriving in lab	installed at client sites/installed at client sites	installed at client sites/installed at client sites	installed at client sites/installed at client sites
QA tools/Environmental health	installed at client sites/installed at client sites	installed at client sites/available but not installed	installed at client sites/installed at client sites
Interfaces for sending orders from primary lab to reference lab, handling results return, and status updates	installed at client sites	installed at client sites	installed at client sites
Business analytics/Clinical 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
Ability to schedule patient for test collection/Patient-based test registration	not available/installed at client sites	installed at client sites/installed at client sites	installed at client sites/not available
Ability to coordinate with nurses for collections that phlebotomists cannot perform	installed at client sites	installed at client sites	available via Orchard Outreach
Interfaces with public health databases using ELR as part of Promoting Interoperability	installed at client sites	installed at client sites	installed at client sites
Results for tests run using different methods show method on clinical reports	installed at client sites	installed at client sites	installed at client sites
Barcode symbologies supported by LIS	Code 39, Code 128	Codabar (NW-7), Code 39, Code 128, DataMatrix (LIS also supports QR codes)	Codabar (NW-7), Code 39, Code 128, DataMatrix (LIS also supports QR codes)
Ability to use artificial intelligence (e.g., machine-learning software) with LIS	planned for future	planned for future	planned for future
LIS can report lab data to public health agencies via automated electronic transmission using specified formats (e.g., HL7 2.5.1, LOINC, SNOMED, etc.) for:			
Microbiology (culture and sensitivity)	yes	yes	yes
Other reportable diseases or conditions (e.g., blood lead, immunology, etc.)	yes	yes	yes (blood lead, immunology, others)
Tumor diagnosis and case data to regional cancer registry***	no	no	yes
LIS bidirectionally interfaces to other IT vendors' lab systems in live sites	yes	yes	yes
LIS uses third-party middleware for LIS–instrument interfaces	yes (Data Innovations)	no (interface directly)	no (interface directly)
Lab automation systems or workcells to which LIS has a direct interface	interface via Data Innovations to Beckman Coulter, Siemens, QuidelOrtho, Sysmex, Roche, Abbott	Beckman Coulter, Siemens, QuidelOrtho, Sysmex, Thermo Scientific, Olympus, Roche, Abbott, Tecan, others	Beckman Coulter, Siemens, QuidelOrtho, Sysmex, Thermo Scientific, Olympus, Roche, Abbott, Tecan, others
LIS supports use of SNOMED CT	yes, for all cases	yes, for all cases	yes, for all cases
LIS automatically ingests and applies electronic updates of tables and rules from organizations and government agencies	planned for future	yes (LOINC, CPT, ICD-10)	no
LIS allows for image capture, display, reporting	yes	yes	yes
LIS provides indexed field in each test definition for LOINC code	yes (provide LOINC dictionary free of charge with install)	yes	yes
Company provides LIS clients with positive patient ID software to identify patients and/or blood specimens collected at bedside	software to identify patients and blood specimens integrated in LIS—additional fee	software to identify patients and blood specimens integrated in LIS—no additional fee	software to identify patients available via Lattice interface—additional fee
Client gets copy of source code/User group that meets on established schedule	escrow/yes (via conference call)	no/yes (via webinar and conference call)	escrow/no
Qualified users or third parties can modify or augment LIS functions or features	yes (client users and designated third parties)	no	yes (client users)
Methods by which users can tailor LIS in their own setting	ad hoc query tools, user-defined interfaces, dictionary settings, read/write privileges, workflow configuration, tailored worklists, interface engine	ad hoc query tools, dictionary settings, workflow configuration, custom	ad hoc query tools, user-defined interfaces, dictionary settings, read/write privileges, workflow configuration, tailored worklists, user-defined security, others
Distinguishing product features (supplied by company)	- expert microbiology: uses decision tree logic to perform systematic phrase and microbiology result entry - expert technology: supports laboratory policies and practices, confirming that analytical criteria are applied - label designer: allows users to easily create custom labels with text, barcodes, and shapes	- ad hoc data reporting and extraction that is usable by nonprogrammers - customizable workflows with multiple pathways available, depending on laboratory operations - many tools for specialties (toxicology, pathology, molecular) for higher volume processing	- expert interfacing and integration with instruments, EMR and host systems, departments, reference labs - robust rules-based decision support logic and data-mining technology for data analytics - advanced data mining allows labs to track key performance metrics and quality assurance measures
*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 ***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			

LABORATORY INFORMATION SYSTEMS			NOVEMBER 2025 CAP TODAY 35
Part 2 of 8	Clinisys/Orchard Software Steve Hurwitz shurwitz@orchardsoft.com Carmel, IN 800-856-1948 www.orchardsoft.com	Comp Pro Med Craig Wargin cwargin@comppromed.com Santa Rosa, CA 707-578-0239 www.comppromed.com	CompuGroup Medical David Delgado david.delgado@cgm.com Richardson, TX 800-359-0911 www.cgm.com/us
Name of laboratory information system	Orchard Harvest LIS	Polytech LIS	CGM LABDAQ
How LIS functionality is deployed	client option of local server, or remote hosting, or cloud-based hosting	client option of local server, or remote hosting, or cloud-based hosting, or on-premises edge computing network	client option of local server or cloud-based hosting; clients may implement in a virtual environment
Company provides list of client sites to potential customers on request	yes (partial list of comparable sites with no restrictions regarding its use)	no (information is confidential)	yes (partial list of comparable sites with no restrictions regarding its use)
Updates covered by standard software maintenance fee	all updates quarterly	all updates every 6 months	all updates
• Schedule for providing standard software updates to clients	yes (clients are required to stay within the latest 2 versions to avoid an upgrade fee)	no	2–3 per year
• Clients must install updates in specified timespans to avoid maintenance fee increase	no	no	no
Fee for software modifications to comply with federal regulations and laws	1993	1983	1991
Year company began selling LISs (any brand or model)	June 2025	April 2025	July 2025
Most recent LIS go-live at a client site (based on August 2025 survey deadline)	April 2025 (version 15.250418)	April 2025 (version 8.6.9)	June 2025 (version CGM LABDAQ v25.3)
Last product release or update for featured LIS	1,843	130	1,546
Total No. of contracts for sites operating LIS in U.S.	23 sales/23 installations	2 sales/2 installations	134 sales/96 installations
No. of U.S. sales and installations of LIS between August 2024–July 2025	1,843 (258/214/1,161/37/173—correctional facilities, educational program, health care network, others)	130 (2/82/46/0/0)	2,150 (75/520/1,492/3/60—ER, veterinary, student health, rehabilitation, research)
Total No. of U.S. sites operating LIS (hospitals/independent labs/clinics or group practices/public health labs/other sites)	47%/53%	5%/95%	not tracked
• Approx. percentage of high-vol.* U.S. site installs/Low-vol.** U.S. site installs	none	none	none
Foreign locations where company actively markets LIS for clinical lab use	Canada	Bhutan, Ethiopia, Eritrea, Canada, Caribbean, Bahamas, Kuwait, Philippines	Dubai, Lilongwe, Virgin Islands, Tanzania, Iran
• Foreign locations where LIS has been installed for clinical lab use	none	any supported by Microsoft operating system†	none
Human languages (other than English) supported by LIS	267	7	8,700
Approximate No. of employees in entire company	HP Business Class in a client/server environment, SaaS	any (client supported)	client/server (business grade)
Central hardware or service type	4th Dimension with portions in C, C++, HTML; Java	PHP, C++, HTML, JavaScript, R	.Net
Programming languages and development applications or environments	Windows Server 2016 or later	Microsoft Windows	Windows Server 2022, Windows 11 on workstations
Operating system(s)	4D	Pervasive, MySQL, SQLite	Microsoft SQL Server 2019
Databases	yes	yes	yes
System includes full transaction logging	Features/modules incorporated in product:		
Features/modules incorporated in product:	• Chemistry/Hematology/Print barcoded collection labels	installed at client sites (all 3 features)	installed at client sites (all 3 features)
• 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	available via Haemonetics/available via Haemonetics	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	available via CGM AP EASY (both features)
• Molecular pathology/Cytogenetics/Flow cytometry	installed at client sites (all 3 features)	installed at client sites (all 3 features)	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	not available/not available	not available/not available	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/Client services or CRM module	installed at client sites/available via Orchard Outreach	installed at client sites/installed at client sites	installed at client sites/installed at client sites
• POL link or Web portal to physician offices/Patient Web portal	installed at client sites/available via Orchard patient portal	installed at client sites/installed at client sites	installed at client sites/installed at client sites
• Commercial reference lab functionality/Compliance checking	installed at client sites/installed at client sites	installed at client sites/installed at client sites	installed at client sites/installed at client sites
• Comprehensive billing and accounts receivable or RCM	available via PGM Billing	installed at client sites	available via CGM webPRACTICE, ARIA RCM Services
• Materials management and inventory/Test partition	installed at client sites/installed at client sites	installed at client sites/installed at client sites	installed at client sites/installed at client sites
• Remote faxing/Remote 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
• Management and tracking of specimens within lab/Before arriving in lab	installed at client sites/installed at client sites	installed at client sites/installed at client sites	installed at client sites/installed at client sites
• QA tools/Environmental health	installed at client sites/installed at client sites	installed at client sites/installed at client sites	installed at client sites/installed at client sites
• Interfaces for sending orders from primary lab to reference lab, handling results return, and status updates	installed at client sites	installed at client sites	installed at client sites
• Business analytics/Clinical 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
• Ability to schedule patient for test collection/Patient-based test registration	installed at client sites/installed at client sites	installed at client sites/installed at client sites	not available/not available
• Ability to coordinate with nurses for collections that phlebotomists cannot perform	available via Orchard Outreach	installed at client sites	not available
• Interfaces with public health databases using ELR as part of Promoting Interoperability	installed at client sites	installed at client sites	installed at client sites
• Results for tests run using different methods show method on clinical reports	installed at client sites	installed at client sites	installed at client sites
Barcode symbologies supported by LIS	Codabar (NW-7), Code 39, Code 128, DataMatrix, Code 128C, PDF417	Codabar (NW-7), Code 39, Code 128, DataMatrix (LIS also supports QR codes)	Codabar (NW-7), Code 39, Code 128, DataMatrix (LIS also supports QR codes)
Ability to use artificial intelligence (e.g., machine-learning software) with LIS	planned for future	planned for future	planned for future
LIS can report lab data to public health agencies via automated electronic transmission using specified formats (e.g., HL7 2.5.1, LOINC, SNOMED, etc.) for:			
• Microbiology (culture and sensitivity)	yes	yes	yes
• Other reportable diseases or conditions (e.g., blood lead, immunology, etc.)	yes	yes (any disease or condition, as required)	yes
• Tumor diagnosis and case data to regional cancer registry***	yes	yes	no
LIS bidirectionally interfaces to other IT vendors' lab systems in live sites	yes	yes	yes
LIS uses third-party middleware for LIS—instrument interfaces	no (interface directly)	no (interface directly)	combination of direct interfaces and third-party middleware (Data Innovations, RALS, Telcor, others)
Lab automation systems or workcells to which LIS has a direct interface	Beckman Coulter, Siemens, QuidelOrtho, Sysmex, Thermo Scientific, Olympus, Roche, Abbott, Tecan, others	Beckman Coulter, Siemens, QuidelOrtho, Sysmex, Thermo Scientific, Olympus, Roche, Abbott, Tecan, Bayer	Beckman Coulter, Siemens, Roche Diagnostics, Abbott Diagnostics
LIS supports use of SNOMED CT	yes, for all cases	yes, for all cases	for some types of cases (result-level SNOMED supported)
LIS automatically ingests and applies electronic updates of tables and rules from organizations and government agencies	no	yes (LOINC, ICD, FDA NDC)	yes (CodeMap, CMS diagnosis codes)
LIS allows for image capture, display, reporting	yes	yes	yes
LIS provides indexed field in each test definition for LOINC code	yes	yes (provide LOINC dictionary free of charge with install)	yes
Company provides LIS clients with positive patient ID software to identify patients and/or blood specimens collected at bedside	no	planned for future	no
Client gets copy of source code/User group that meets on established schedule	escrow/no	no/no	escrow/yes (in person and via webinar)
Qualified users or third parties can modify or augment LIS functions or features	yes (client users)	yes (client users)	yes (client users)
Methods by which users can tailor LIS in their own setting	ad hoc query tools, user-defined interfaces, dictionary settings, read/write privileges, workflow configuration, tailored worklists, user-defined security, rules, others	ad hoc query tools, user-defined interfaces, dictionary settings, read/write privileges, workflow configuration, tailored worklists, customizable report generator	ad hoc query tools, user-defined interfaces, read/write privileges, workflow configuration, tailored worklists, user-configurable rules, field aliasing, others
Distinguishing product features (supplied by company)	• expert interfacing and integration with instruments, EMR and host systems, departments, reference labs	• live U.S.-based customer support; problems solved in hours, not weeks	• advanced integration and connectivity with instruments, EHRs, billing software, reference labs, more
	• robust rules-based decision support logic and data-mining technology for data analytics	• Polytech reporting completely customer customizable with company support or independently with company LIS tools	• intuitive navigation with a customizable user home screen and shortcuts to common reports, more
	• intuitive, user-friendly user interface and maximum flexibility allow users to configure system to their needs	• ease of usability; 90 percent of lab work done in a single screen	• powerful rules; data-mining queries for data analysis; experienced support staff to assist
*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			
***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			
		†actively translated for French, Spanish	

Part 3 of 8	CompuGroup Medical David Delgado david.delgado@cgm.com Richardson, TX 800-359-0911 www.cgm.com/us	Computer Service & Support Lynette Lex l.lex@csslis.com Linwood, NJ 609-653-6444 www.csslis.com	Dendi Chris Chen cchen@dendisoftware.com Claymont, DE 919-448-5511 www.dendisoftware.com
Name of laboratory information system	CGM SCHUYLAB†	Avalon LIS/BI/AI†	Dendi LIS
How LIS functionality is deployed	client option of local server or cloud-based hosting	client option of local server or cloud-based hosting	remote hosting
Company provides list of client sites to potential customers on request	yes (partial list of comparable sites with no restrictions regarding its use)	no (information is confidential)	—
Updates covered by standard software maintenance fee	all updates	all updates	all updates
• Schedule for providing standard software updates to clients	—	quarterly	minor updates biweekly; major enhancements quarterly
• Clients must install updates in specified timespans to avoid maintenance fee increase	no	no	no
Fee for software modifications to comply with federal regulations and laws	no	no	no
Year company began selling LISs (any brand or model)	1991	1980	2019
Most recent LIS go-live at a client site (based on August 2025 survey deadline)	July 2025	July 2025	August 2025
Last product release or update for featured LIS	June 2023 (version 4.0)	July 2025 (version 1.32.6)	August 2025 (version 8/04/2025 V1.150.1)
Total No. of contracts for sites operating LIS in U.S.	380	70	32
No. of U.S. sales and installations of LIS between August 2024–July 2025	39 sales	2 sales/2 installations	13 sales/13 installations
Total No. of U.S. sites operating LIS (hospitals/independent labs/clinics or group practices/public health labs/other sites)	419 (10/349/40/0/20—universities, veterinary)	70 (0/65/3/2/0)	30 (0/27/3/0/0)
• Approx. percentage of high-vol.* U.S. site installs/Low-vol.** U.S. site installs	—	70%/30%	3%/97%
Foreign locations where company actively markets LIS for clinical lab use	Guam, Caribbean, Canada, Africa, Pacific Rim, South East Asia	Canada	North America, Asia Pacific, Europe
• Foreign locations where LIS has been installed for clinical lab use	Guam, Caribbean, Canada, Africa, Pacific Rim, South East Asia	Canada	Canada, Brunei
Human languages (other than English) supported by LIS	Spanish, Portuguese, Chinese, German, French, Italian, Dutch, Japanese	none	Spanish
Approximate No. of employees in entire company	8,700	14	24
Central hardware or service type	—	Dell, IBM	Dendi Connectivity Solution (instrument interface)
Programming languages and development applications or environments	C++	Java, C, C#, PHP, SQL	Python (Django framework)
Operating system(s)	Microsoft Windows	Unix, Linux, IBM AIX	Web based (compatible with Microsoft Windows, Mac OS, Linux)
Databases	Faircom C-Tree	MySQL	PostgreSQL (AWS Aurora)
System includes full transaction logging	yes	yes	—
Features/modules incorporated in product:			
• Chemistry/Hematology/Print barcoded collection labels	installed at client sites (all 3 features)	installed at client sites (all 3 features)	installed at client sites (all 3 features)
• 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	—	not available/not available	not available/not available
• Surgical pathology/Cytology	—/installed at client sites	in development/in development	not available/not available
• Molecular pathology/Cytogenetics/Flow cytometry	installed at client sites/—/installed at client sites	in development/in development/not available	installed at client sites/not available/not available
• 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/Client services or CRM module	installed at client sites/—	installed at client sites/installed at client sites	installed at client sites/avail. via third-party CRM
• POL link or Web portal to physician offices/Patient Web portal	installed at client sites/installed at client sites	installed at client sites/installed at client sites	installed at client sites/installed at client sites
• Commercial reference lab functionality/Compliance checking	installed at client sites/not available	installed at client sites/installed at client sites	installed at client sites/installed at client sites
• Comprehensive billing and accounts receivable or RCM	installed at client sites	installed at client sites	available via third-party RCM
• Materials management and inventory/Test partition	installed at client sites/installed at client sites	installed at client sites/installed at client sites	installed at client sites/installed at client sites
• Remote faxing/Remote 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
• Management and tracking of specimens within lab/Before arriving in lab	installed at client sites/not available	installed at client sites/installed at client sites	installed at client sites/installed at client sites
• QA tools/Environmental health	installed at client sites/—	installed at client sites/available but not installed	installed at client sites/not available
• Interfaces for sending orders from primary lab to reference lab, handling results return, and status updates	installed at client sites	installed at client sites	installed at client sites
• Business analytics/Clinical 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
• Ability to schedule patient for test collection/Patient-based test registration	installed at client sites/not available	installed at client sites/installed at client sites	installed at client sites/installed at client sites
• Ability to coordinate with nurses for collections that phlebotomists cannot perform	not available	installed at client sites	installed at client sites
• Interfaces with public health databases using ELR as part of Promoting Interoperability	installed at client sites	installed at client sites	installed at client sites
• Results for tests run using different methods show method on clinical reports	installed at client sites	installed at client sites	installed at client sites
Barcode symbologies supported by LIS	Codabar (NW-7), Code 39, Code 128, DataMatrix (LIS also supports QR codes)	Codabar (NW-7), Code 39, Code 128 (LIS also supports QR codes)	Code 39, Code 128 (LIS also supports QR codes)
Ability to use artificial intelligence (e.g., machine-learning software) with LIS	no	yes (for interpretation of results—provides possible diagnoses, alternative explanations, and key questions to discuss with health care provider; interface to Avalon Insights)	yes (integrates with AI paper-requisition OCR; AI interpretation to automate data entry for test ordering; interface to PreciseMDX, others)
LIS can report lab data to public health agencies via automated electronic transmission using specified formats (e.g., HL7 2.5.1, LOINC, SNOMED, etc.) for:			
• Microbiology (culture and sensitivity)	yes	yes	yes
• Other reportable diseases or conditions (e.g., blood lead, immunology, etc.)	yes (HIV, hepatitis, lead, COVID)	yes (COVID)	yes (COVID, RSV, flu, mpox, HIV)
• Tumor diagnosis and case data to regional cancer registry***	no	no	no (can be added)
LIS bidirectionally interfaces to other IT vendors' lab systems in live sites	yes	yes	yes
LIS uses third-party middleware for LIS—instrument interfaces	no (interface directly)	no (interface directly)	no (interface directly)
Lab automation systems or workcells to which LIS has a direct interface	Beckman Coulter, Siemens, QuidelOrtho, Sysmex, Tecan, Thermo Scientific, Olympus, Roche, Abbott, Bayer, others	Beckman Coulter, Siemens, Sysmex, Thermo Scientific, Olympus, Roche, Abbott, Tecan, Bayer, Yaskawa	Beckman Coulter, Siemens, QuidelOrtho, Sysmex, Thermo Scientific, Olympus, Roche, Abbott, others
LIS supports use of SNOMED CT	yes, for all cases	for some types of cases (COVID, more as required)	yes, for all cases
LIS automatically ingests and applies electronic updates of tables and rules from organizations and government agencies	no	no	no
LIS allows for image capture, display, reporting	yes	yes	yes (can scan patient records, display images in reports)
LIS provides indexed field in each test definition for LOINC code	yes	yes (provide LOINC dictionary free of charge with install)	yes (provide LOINC dictionary free of charge with install)
Company provides LIS clients with positive patient ID software to identify patients and/or blood specimens collected at bedside	planned for future	software to identify blood specimens integrated in LIS—no additional fee	no
Client gets copy of source code/User group that meets on established schedule	no/no	no/no	escrow/no
Qualified users or third parties can modify or augment LIS functions or features	yes (client users)	yes (client users)	yes (client users)
Methods by which users can tailor LIS in their own setting	workflow configuration, tailored worklists	ad hoc query tools, user-defined interfaces, dictionary settings, read/write privileges	ad hoc query tools, user-defined interfaces, workflow configuration, tailored worklists, plate maps, custom report templates, test menu configuration, others
Distinguishing product features (supplied by company)			
• direct Medicare and Medicaid billing, including claims and remittance, in all regions of the United States	• direct Medicare and Medicaid billing, including claims and remittance, in all regions of the United States	• AI interpretation of results	• cloud-native architecture enables modern integration capabilities, security, speed of implementation
• billing is fully integrated with CGM SCHUYLAB—not third-party software	• billing is fully integrated with CGM SCHUYLAB—not third-party software	• database access by customer	• in-house, remotely-managed instrument interfaces enable quick setup and reliable maintenance
		• U.S.-based customer support	• user interface based on modern Web UI standards enables quick onboarding and high user satisfaction
*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			
***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			
	†also marketed by Henry Schein, McKesson Medical	†formerly Avalon LIS	

		LABORATORY INFORMATION SYSTEMS		NOVEMBER 2025 CAP TODAY 37	
Part 4 of 8	ELEA Richard Gruner richard@elea.health Hamburg, Germany +1 408-734-6817 www.elea.health/en	Epic Nick Trentadue ntrentad@epic.com Verona, WI 608-271-9000 www.epic.com	LabWare Sarah Jones sjones@labware.com Wilmington, DE 302-658-8444 www.labware.com		
Name of laboratory information system	Elea	Beaker	LabWare		
How LIS functionality is deployed	cloud-based hosting	client option of local server, or remote hosting, or cloud-based hosting	client option of local server or customer-managed remote hosting		
Company provides list of client sites to potential customers on request	yes (partial list of comparable sites but prospective clients must sign a nondisclosure agreement)	yes (complete list with no restrictions regarding its use)	yes (complete list but prospective clients must sign a nondisclosure agreement)		
Updates covered by standard software maintenance fee	all updates weekly	all updates quarterly	all updates new modules 3–6 ×/yr.; other updates at set intervals		
• Schedule for providing standard software updates to clients	no	no	no		
• Clients must install updates in specified timespans to avoid maintenance fee increase	no	no	no		
Fee for software modifications to comply with federal regulations and laws					
Year company began selling LISs (any brand or model)	2023	1980	1999		
Most recent LIS go-live at a client site (based on August 2025 survey deadline)	July 2025	July 2025	May 2025		
Last product release or update for featured LIS	July 2025 (version v3)	May 2025 (version May 2025)	February 2025 (version 8l)		
Total No. of contracts for sites operating LIS in U.S.	10	366	64		
No. of U.S. sales and installations of LIS between August 2024–July 2025	6 sales/3 installations	42 sales/42 installations	2 sales/3 installations		
Total No. of U.S. sites operating LIS (hospitals/independent labs/clinics or group practices/public health labs/other sites)	6 (1/5/0/0/0)	339 (326/11/tracked as hospitals/2/0)	109 (4/21/0/41/43–veterinary, clinical, research, biobank)		
• Approx. percentage of high-vol.* U.S. site installs/Low-vol.** U.S. site installs	40%/60%	90%/10%	25%/75%		
Foreign locations where company actively markets LIS for clinical lab use	Canada, UK, Germany, other EU countries	Canada, Denmark, Finland, Sweden, Australia, many others	worldwide		
• Foreign locations where LIS has been installed for clinical lab use	Germany	Canada, UK, Singapore, Norway, Netherlands, Saudi Arabia, UAE, Belgium, Lebanon, Australia, Switzerland Dutch, Norwegian, French, German, Danish, Finnish	UK, India, Portugal, Columbia, Singapore, China, Switzerland, South Africa, Kenya, many others		
Human languages (other than English) supported by LIS	German, Spanish		German, French, Spanish, Swedish, Chinese, others		
Approximate No. of employees in entire company	25	14,600	995		
Central hardware or service type	Apple devices, Windows devices	HP 9000, HP Integrity, Sun Sparc, IBM p5 Series, Epic Hosting LLC, public cloud/hosting supplier	database server: Sun, Unix, Linux, Windows, others; application server: Windows 2012, 2016, 2019, 2022; hosted environments: Amazon Web Services		
Programming languages and development applications or environments	TypeScript, Python, SQL	Caché, C#, ASP .Net, JavaScript	Smalltalk, Java, .Net		
Operating system(s)	Apple MacOS/iPadOS, Microsoft Windows	Unix, Windows, Linux	application server: Windows; database server: Sun, Unix, Linux, Windows, others		
Databases	PostgreSQL	Chronicles Extended Relational Database Mgmt. System	Oracle, Microsoft SQL, PostgreSQL		
System includes full transaction logging	yes	yes	yes		
Features/modules incorporated in product:					
• Chemistry/Hematology/Print barcoded collection labels	installed at client sites (all 3 features)	installed at client sites (all 3 features)	installed at client sites (all 3 features)		
• Microbiology/Public health microbiology	installed at client sites/under development	installed at client sites/installed at client sites	installed at client sites/installed at client sites		
• Blood bank donor/Blood bank transfusion	under development/under development	under development/under development	available via WellSky/available via WellSky		
• 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 (all 3 features)	installed at client sites (all 3 features)	installed at client sites (all 3 features)		
• 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/installed at client sites		
• Management and statistical reporting/Client services or CRM module	installed at client sites/installed at client sites	installed at client sites/installed at client sites	installed at client sites/installed at client sites		
• POL link or Web portal to physician offices/Patient Web portal	installed at client sites/installed at client sites	installed at client sites/installed at client sites	installed at client sites/installed at client sites		
• Commercial reference lab functionality/Compliance checking	installed at client sites/installed at client sites	installed at client sites/installed at client sites	installed at client sites/installed at client sites		
• Comprehensive billing and accounts receivable or RCM	installed at client sites	installed at client sites	installed at client sites		
• Materials management and inventory/Test partition	installed at client sites/installed at client sites	not available/installed at client sites	installed at client sites/installed at client sites		
• Remote faxing/Remote 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		
• Management and tracking of specimens within lab/Before arriving in lab	installed at client sites/installed at client sites	installed at client sites/installed at client sites	installed at client sites/installed at client sites		
• QA tools/Environmental health	installed at client sites/installed at client sites	installed at client sites/installed at client sites	installed at client sites/installed at client sites		
• Interfaces for sending orders from primary lab to reference lab, handling results return, and status updates	installed at client sites	installed at client sites	installed at client sites		
• Business analytics/Clinical 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		
• Ability to schedule patient for test collection/Patient-based test registration	installed at client sites/installed at client sites	installed at client sites/installed at client sites	installed at client sites/installed at client sites		
• Ability to coordinate with nurses for collections that phlebotomists cannot perform	installed at client sites	installed at client sites	installed at client sites		
• Interfaces with public health databases using ELR as part of Promoting Interoperability	installed at client sites	installed at client sites	installed at client sites		
• Results for tests run using different methods show method on clinical reports	installed at client sites	installed at client sites	installed at client sites		
Barcode symbologies supported by LIS	Codabar (NW-7), Code 39, Code 128, DataMatrix (LIS also supports QR codes)	Codabar (NW-7), Code 39, Code 128, DataMatrix (LIS also supports QR codes)	Codabar (NW-7), Code 39, Code 128, DataMatrix, Aztec, PDF417 (LIS also supports QR codes)		
Ability to use artificial intelligence (e.g., machine-learning software) with LIS	yes (uses AI agents to automate case processing to accelerate work for lab staff and pathologists; interface to Mindpeak, Hugging Face, others)	yes (automatic resulting of a synoptic form by extracting results from narrative results using GPT technology; other uses and interfaces)	yes (configurable data science engine for managing and executing R or Python statistical/ML logic, more)		
LIS can report lab data to public health agencies via automated electronic transmission using specified formats (e.g., HL7 2.5.1, LOINC, SNOMED, etc.) for:					
• Microbiology (culture and sensitivity)	yes	yes	yes		
• Other reportable diseases or conditions (e.g., blood lead, immunology, etc.)	yes	yes (all supported)	yes (respiratory diseases, many others)		
• Tumor diagnosis and case data to regional cancer registry***	yes	yes	yes		
LIS bidirectionally interfaces to other IT vendors’ lab systems in live sites	yes	yes	yes		
LIS uses third-party middleware for LIS–instrument interfaces	no (interface directly)	combination of direct interfaces and third-party middleware (Data Innovations, Abbott AlinQ)	yes no (interface directly)		
Lab automation systems or workcells to which LIS has a direct interface	Argos	interface via Data Innovations to Beckman, Siemens, QuidelOrtho, Sysmex, Thermo Scientific, Olympus, others	Beckman Coulter, Thermo Scientific, Abbott Diagnostics, Tecan		
LIS supports use of SNOMED CT	yes, for all cases	yes, for all cases	yes, for all cases		
LIS automatically ingests and applies electronic updates of tables and rules from organizations and government agencies	yes (CAP synoptic report templates, AMA CPT code updates)	yes (LOINC, CPT, SNOMED, ICD-10)	can be configured for LOINC, CPT, ICD, SNOMED, others		
LIS allows for image capture, display, reporting	yes	yes	yes		
LIS provides indexed field in each test definition for LOINC code	yes (provide LOINC dictionary for a fee with install)	yes (provide LOINC dictionary free of charge with install)	yes		
Company provides LIS clients with positive patient ID software to identify patients and/or blood specimens collected at bedside	planned for future	software to identify patients and blood specimens integrated in LIS–no additional fee	software to identify patients and blood specimens integrated in LIS–no additional fee		
Client gets copy of source code/User group that meets on established schedule	optional/yes (via conference call)	yes/yes (in person and via webinar and conference call)	escrow/yes (in person)		
Qualified users or third parties can modify or augment LIS functions or features	yes (designated third parties)	yes (client users and designated third parties)	yes (client users)		
Methods by which users can tailor LIS in their own setting	ad hoc query tools, user-defined interfaces, dictionary settings, workflow configuration, tailored worklists, command Elea’s AI to customize case workflows	ad hoc query tools, user-defined interfaces, dictionary settings, read/write privileges, workflow configuration, tailored worklists	ad hoc query tools, user-defined interfaces, dictionary settings, read/write privileges, workflow configuration, tailored worklists, others		
Distinguishing product features (supplied by company)	• AI agent system inside Elea automatically routes cases through the lab • AI support: computer vision-based grossing descriptions, AI assistance for pathologists, autogenerated synoptic reports • full EMR connectivity and lab hardware connectivity	• seamless native data transfer from LIS to EMR without need for interfaces or translation tables • one product for all laboratory disciplines: core lab, microbiology, flow cytometry, cytology, more • smart AI and patient-centered decision support to empower ordering clinicians, laboratorians, patients	• configurability and upgradability allow customers to respond to changing needs and stay current • user license provides access to fully integrated tools for all clinical lab disciplines and research • customer-configurable app for mobile phones and tablet devices (iOS and Android)		
*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					
***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 8	LigoLab Information Systems Suren Avunjian suren@ligolab.com Glendale, CA 800-544-6522/818-230-1307 www.ligolab.com	NovoPath Promise Okeke pokeke@novopath.com Bridgewater, NJ www.novopath.com	Oracle Health Dustin Greer dustin.greer@oracle.com Austin, TX 800-633-0738 www.oracle.com/health
Name of laboratory information system	LigoLab LIS & RCM Laboratory Informatics Platform 2025†	NovoPath 360†	Oracle Health Laboratory†
How LIS functionality is deployed	client option of local server, or remote hosting, or cloud-based hosting	cloud-based hosting	client option of local server or remote hosting
Company provides list of client sites to potential customers on request	yes (complete list but prospective clients must sign a nondisclosure agreement)	yes (partial list of comparable sites but prospective clients must sign a nondisclosure agreement)	yes (partial list of comparable sites with no restrictions regarding its use)
Updates covered by standard software maintenance fee	all updates quarterly	all updates monthly	all updates
• Schedule for providing standard software updates to clients			innovation releases quarterly; correction releases every 2 weeks
• Clients must install updates in specified timespans to avoid maintenance fee increase	no	no	no
Fee for software modifications to comply with federal regulations and laws	no	no	no
Year company began selling LISs (any brand or model)	2006	1999	1982
Most recent LIS go-live at a client site (based on August 2025 survey deadline)	August 2025	August 2025	July 2025
Last product release or update for featured LIS	August 2025 (version 2025.2)	July 2025 (version 360.V7)	July 2025 (version 2025.3.01)
Total No. of contracts for sites operating LIS in U.S.	178	144	—
No. of U.S. sales and installations of LIS between August 2024–July 2025	22 sales/18 installations	14 sales	—
Total No. of U.S. sites operating LIS (hospitals/independent labs/clinics or group practices/public health labs/other sites)	273 (0/252/21/0/0)	—	—
• Approx. percentage of high-vol.* U.S. site installs/Low-vol.** U.S. site installs	64%/36%	15%/85%	—
Foreign locations where company actively markets LIS for clinical lab use	none	none	Australia, Canada, UK, Ireland, Belgium, Nordic countries, Middle East, Singapore, Caribbean
• Foreign locations where LIS has been installed for clinical lab use	—	—	Australia, Canada, UK, Ireland, Middle East, Caribbean, Latin America, European Union
Human languages (other than English) supported by LIS	—	—	British-English, German, Spanish, French
Approximate No. of employees in entire company	83	70+	160,000+
Central hardware or service type	—	software-as-a-service	—
Programming languages and development applications or environments	Java	ASP .Net Core, C#, HTML, JavaScript, TSQL (Transact-SQL)	Java, C++, C#, Visual C
Operating system(s)	Macintosh OS, Windows	Azure Cloud, Windows, Macintosh OS, Web	HP-UX, AIX, VMS
Databases	Microsoft SQL	SQL server, Monogodb, Redis	Oracle
System includes full transaction logging	yes	yes	yes
Features/modules incorporated in product:			
• Chemistry/Hematology/Print barcoded collection labels	installed at client sites (all 3 features)	available but not installed/available but not installed/installed at client sites	installed at client sites (all 3 features)
• Microbiology/Public health microbiology	installed at client sites/installed at client sites	not available/not available	installed at client sites/installed at client sites
• Blood bank donor/Blood bank transfusion	—	not available/not available	not available/installed at client sites
• 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 (all 3 features)	installed at client sites (all 3 features)	installed at client sites (all 3 features)
• 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/Client services or CRM module	installed at client sites/installed at client sites	installed at client sites/installed at client sites	installed at client sites/installed at client sites
• POL link or Web portal to physician offices/Patient Web portal	installed at client sites/installed at client sites	installed at client sites/not available	available via Oracle Health provider portal/available via Oracle Health patient portal
• Commercial reference lab functionality/Compliance checking	installed at client sites/installed at client sites	installed at client sites/installed at client sites	installed at client sites/installed at client sites
• Comprehensive billing and accounts receivable or RCM	installed at client sites	not available	installed at client sites
• Materials management and inventory/Test partition	installed at client sites/installed at client sites	installed at client sites/installed at client sites	available via Oracle Fusion/installed at client sites
• Remote faxing/Remote 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	avail. via Oracle Health provider portal (both features)
• Management and tracking of specimens within lab/Before arriving in lab	installed at client sites/installed at client sites	installed at client sites/in testing	installed at client sites/installed at client sites
• QA tools/Environmental health	installed at client sites/installed at client sites	installed at client sites/not available	installed at client sites/installed at client sites
• Interfaces for sending orders from primary lab to reference lab, handling results return, and status updates	installed at client sites	installed at client sites	available via Oracle Health Reference Lab Network
• Business analytics/Clinical 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
• Ability to schedule patient for test collection/Patient-based test registration	installed at client sites/installed at client sites	not available/not available	installed at client sites/installed at client sites
• Ability to coordinate with nurses for collections that phlebotomists cannot perform	installed at client sites	not available	installed at client sites
• Interfaces with public health databases using ELR as part of Promoting Interoperability	installed at client sites	installed at client sites	installed at client sites
• Results for tests run using different methods show method on clinical reports	installed at client sites	installed at client sites	installed at client sites
Barcode symbologies supported by LIS	Code 39, Code 128, DataMatrix (LIS also supports QR codes)	Code 39, Code 128, DataMatrix (LIS also supports QR codes)	Codabar (NW-7), Code 39, Code 128, DataMatrix
Ability to use artificial intelligence (e.g., machine-learning software) with LIS	planned for future	planned for future	planned for future
LIS can report lab data to public health agencies via automated electronic transmission using specified formats (e.g., HL7 2.5.1, LOINC, SNOMED, etc.) for:			
• Microbiology (culture and sensitivity)	yes	no	yes
• Other reportable diseases or conditions (e.g., blood lead, immunology, etc.)	yes	no	yes (STD, hepatitis, heavy metal poisoning, viral diseases)
• Tumor diagnosis and case data to regional cancer registry***	yes	yes	yes
LIS bidirectionally interfaces to other IT vendors' lab systems in live sites	yes	yes	yes
LIS uses third-party middleware for LIS–instrument interfaces	no (interface directly)	no (interface directly)	no (interface directly)
Lab automation systems or workcells to which LIS has a direct interface	Beckman Coulter, Siemens, QuidelOrtho, Sysmex, Thermo Scientific, Olympus, Roche, Abbott, Tecan, Bayer	Beckman Coulter, Sysmex, Thermo Scientific, Roche Diagnostics	Beckman Coulter, Siemens, Sysmex, Thermo Scientific, Olympus, Roche, Abbott, Tecan, BD, Copan
LIS supports use of SNOMED CT	yes, for all cases	yes, for all cases	yes, for all cases
LIS automatically ingests and applies electronic updates of tables and rules from organizations and government agencies	yes (LOINC codes, CPT additions)	yes (CAP cancer checklist)	yes (LOINC, SNOMED, others)
LIS allows for image capture, display, reporting	yes	yes	yes
LIS provides indexed field in each test definition for LOINC code	yes (provide LOINC dictionary free of charge with install)	yes	yes (provide LOINC dictionary free of charge with install)
Company provides LIS clients with positive patient ID software to identify patients and/or blood specimens collected at bedside	software to identify patients and blood specimens integrated in LIS–no additional fee	no	software to identify patients and blood specimens integrated in LIS–additional fee
Client gets copy of source code/User group that meets on established schedule	escrow/yes (in person and via webinar and conference call)	no/yes (via webinar)	no/yes (in person and via webinar or conference call)
Qualified users or third parties can modify or augment LIS functions or features	yes (client users)	yes (client users)	yes (client users)
Methods by which users can tailor LIS in their own setting	ad hoc query tools, user-defined interfaces, dictionary settings, read/write privileges	ad hoc query tools, user-defined interfaces, dictionary settings, workflow configuration, tailored worklists	ad hoc query tools, user-defined interfaces, dictionary settings, read/write privileges, workflow configuration, tailored worklists
Distinguishing product features (supplied by company)	• end-to-end platform purpose-built to scale labs operationally, clinically, financially • company acts as a lab's partner by eliminating friction and accelerating the lab's growth and future-proofing its business • empowers labs to operate like top 1%, regardless of size	• library of dashboards to choose from that are prebuilt for clients; clients can also create their own dashboards • discrepancy module that automatically detects discrepancies within the platform • automatic case distribution, with parameters set by client, ensures equal workload among pathologists	• can be configured in an integrated manner with the EHR or as a standalone offering • adaptable, scalable platform with a flexible rules engine and health analytics engine • leverages Oracle for large-scale, highly reliable infrastructure, including database, cloud, and AI
*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			
***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 6 of 8	Pathagility Mark McCuin mark@pathagility.com Conway, AR 888-222-2792 www.pathagility.com	Quality Software Systems Lana Kolesnikova info@labhealth.com Nyack, NY 845-352-4313 www.labhealth.com	SCC Soft Computer Ellie Vahman ellie@softcomputer.com Clearwater, FL 800-763-8352 www.softcomputer.com
Name of laboratory information system	WorkPath	LabHealth	SoftLab [†]
How LIS functionality is deployed	cloud-based hosting	client option of local server, or remote hosting, or cloud-based hosting	client option of local server, or remote hosting, or cloud-based hosting
Company provides list of client sites to potential customers on request	yes (partial list of comparable sites with no restrictions regarding its use)	yes (partial list of comparable sites but prospective clients must sign a nondisclosure agreement)	yes (partial list of comparable sites with no restrictions regarding its use)
Updates covered by standard software maintenance fee	some updates	some updates	all updates
• Schedule for providing standard software updates to clients	every 2 weeks or sooner	variable	2 releases per year
• Clients must install updates in specified timespans to avoid maintenance fee increase	yes	no	no
Fee for software modifications to comply with federal regulations and laws	no	yes	no
Year company began selling LISs (any brand or model)	2007	1984	1985
Most recent LIS go-live at a client site (based on August 2025 survey deadline)	August 2025	July 2025	August 2025
Last product release or update for featured LIS	August 2025 (version v25.22.0-bf7b0ad4e)	August 2025 (version 16.9)	July 2025 (version 5.0)
Total No. of contracts for sites operating LIS in U.S.	42 licenses (not tracked by contract)	100	361
No. of U.S. sales and installations of LIS between August 2024–July 2025	5 sales/5 installations	6 sales/6 installations	15 sales/98 installations
Total No. of U.S. sites operating LIS (hospitals/independent labs/clinics or group practices/public health labs/other sites)	42 (0/42/0/0/0)	100 (1/89/10/0/0)	1,206 (970/64/168/4/0)
• Approx. percentage of high-vol.* U.S. site installs/Low-vol.** U.S. site installs	0/100%	60%/40%	40%/60%
Foreign locations where company actively markets LIS for clinical lab use	none	none	worldwide
• Foreign locations where LIS has been installed for clinical lab use	—	—	Australia, Belgium, Brazil, Canada, France, Haiti, Hong Kong, UK, Jamaica, Indonesia, Israel, Malaysia, others
Human languages (other than English) supported by LIS	—	—	French, Hebrew, Portuguese, Spanish
Approximate No. of employees in entire company	—	—	2,000
Central hardware or service type	Amazon Web Services	Dell servers	IBM Power Series (AIX/Unix), Intel x64 (Linux), Oracle Cloud, Amazon Web Services, others
Programming languages and development applications or environments	Python, Java	ASP .Net, C#, SQL	C, C++, C#, Java
Operating system(s)	Linux	Windows	servers: IBM AIX, Red Hat Linux; workstations: Microsoft Windows, Web based
Databases	SQL	SQL server	Oracle, Oracle WebLogic, ESB, Golden Gate, OAS, Tomcat, ServiceMix
System includes full transaction logging	yes	yes	yes
Features/modules incorporated in product:			
• Chemistry/Hematology/Print barcoded collection labels	installed at client sites (all 3 features)	installed at client sites (all 3 features)	installed at client sites (all 3 features)
• Microbiology/Public health microbiology	installed at client sites/not available	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 development/in development	installed at client sites/installed at client sites
• 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 (all 3 features)	installed at client sites (all 3 features)	installed at client sites (all 3 features)
• 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/installed at client sites
• Management and statistical reporting/Client services or CRM module	installed at client sites/installed at client sites	installed at client sites/installed at client sites	installed at client sites/installed at client sites
• POL link or Web portal to physician offices/Patient Web portal	installed at client sites/installed at client sites	installed at client sites/installed at client sites	installed at client sites/installed at client sites
• Commercial reference lab functionality/Compliance checking	installed at client sites/installed at client sites	installed at client sites/installed at client sites	installed at client sites/installed at client sites
• Comprehensive billing and accounts receivable or RCM	not available	installed at client sites	installed at client sites
• Materials management and inventory/Test partition	installed at client sites/installed at client sites	installed at client sites/installed at client sites	installed at client sites/installed at client sites
• Remote faxing/Remote 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
• Management and tracking of specimens within lab/Before arriving in lab	installed at client sites/installed at client sites	installed at client sites/installed at client sites	installed at client sites/installed at client sites
• QA tools/Environmental health	—/not available	installed at client sites/installed at client sites	installed at client sites/installed at client sites
• Interfaces for sending orders from primary lab to reference lab, handling results return, and status updates	installed at client sites	installed at client sites	installed at client sites
• Business analytics/Clinical 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
• Ability to schedule patient for test collection/Patient-based test registration	installed at client sites/installed at client sites	installed at client sites/installed at client sites	installed at client sites/installed at client sites
• Ability to coordinate with nurses for collections that phlebotomists cannot perform	installed at client sites	installed at client sites	installed at client sites
• Interfaces with public health databases using ELR as part of Promoting Interoperability	installed at client sites	installed at client sites	installed at client sites
• Results for tests run using different methods show method on clinical reports	installed at client sites	installed at client sites	installed at client sites
Barcode symbologies supported by LIS	Codabar (NW-7), Code 39, Code 128, DataMatrix (LIS also supports QR codes)	Code 39, Code 128 (LIS also supports QR codes)	Codabar (NW-7), Code 39, Code 128, DataMatrix, Interleaved 2 of 5, others (LIS also supports QR codes)
Ability to use artificial intelligence (e.g., machine-learning software) with LIS	yes (integrated AI document management and summarization services to reduce manual entry and build workflow efficiencies; interface to Claude)	planned for future	yes (SCC SoftBI data warehouse allows third-party AI/BI real-time access to all LIS data without impacting processing or performance)
LIS can report lab data to public health agencies via automated electronic transmission using specified formats (e.g., HL7 2.5.1, LOINC, SNOMED, etc.) for:			
• Microbiology (culture and sensitivity)	yes	yes	yes
• Other reportable diseases or conditions (e.g., blood lead, immunology, etc.)	yes	yes	yes
• Tumor diagnosis and case data to regional cancer registry***	yes	yes	yes
LIS bidirectionally interfaces to other IT vendors' lab systems in live sites	yes	yes	yes
LIS uses third-party middleware for LIS–instrument interfaces	no (interface directly)	no (interface directly)	no (interface directly)
Lab automation systems or workcells to which LIS has a direct interface	planned for future	Beckman Coulter, Siemens, QuidelOrtho, Sysmex, Thermo Scientific, Olympus, Roche, Abbott, Tecan, Bayer	Beckman Coulter, Siemens, QuidelOrtho, Sysmex, Thermo Scientific, Olympus, Roche, Abbott, Tecan, Bayer
LIS supports use of SNOMED CT	yes, for all cases	yes, for all cases	yes, for all cases
LIS automatically ingests and applies electronic updates of tables and rules from organizations and government agencies	yes (ICD-10 diagnosis codes)	no	yes (LOINC, CPT, CAP)
LIS allows for image capture, display, reporting	yes	yes	yes
LIS provides indexed field in each test definition for LOINC code	no	yes	yes (provide LOINC dictionary for a fee with install)
Company provides LIS clients with positive patient ID software to identify patients and/or blood specimens collected at bedside	planned for future	software to identify patients integrated in LIS—no additional fee	software to identify patients and blood specimens integrated in LIS—additional fee
Client gets copy of source code/User group that meets on established schedule	no/no (connect similar clients if beneficial)	no/no	escrow/yes (in person)
Qualified users or third parties can modify or augment LIS functions or features	yes (clients can modify some features)	no	yes (client users)
Methods by which users can tailor LIS in their own setting	ad hoc query tools, workflow configuration, case type and e-requisition configuration, APIs	ad hoc query tools, user-defined interfaces, dictionary settings, workflow configuration, tailored worklists	ad hoc query tools, dictionary settings
Distinguishing product features (supplied by company)	• rapid deployment and ability to provide client-customization features for a wide range of testing	• fully browser-based LIS with comprehensive lab and billing modules for all laboratory lines of business	• integrated single platform, single database, and patient record across CP, AP, and genetics; multi-site, multi-time zone capability
*generate >500,000 billed tests annually, or >200 bed hospitals, or >500 requisitions per day	• cost-effective high-volume accessioning and multi-channel result distribution	• each installation customizable to create a unique setup tailored to the needs of each laboratory	• full NGS automation with complete suite of LIMS modules for all genetics disciplines
**generate <500,000 billed tests annually, or <200 bed hospitals, or <500 requisitions per day	• flexible integration		[†] also marketed by MediSolution
***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			

[illegible]

- Anatomic pathology computer systems
- Billing/Accounts receivable/ RCM systems
- Laboratory information systems

All information is supplied by the companies listed. The tabulation does not represent an endorsement by the CAP.

Part 8 of 8	TruBridge Sales Department info@trubridge.com Mobile, AL 877-424-1777 www.trubridge.com	XiFin Joseph Nollar jnollar@xifin.com San Diego, CA 858-793-5700 www.xifin.com
Name of laboratory information system	TruBridge EHR–Laboratory Information System†	XiFin Empower LIS†
How LIS functionality is deployed	remote hosting	remote hosting
Company provides list of client sites to potential customers on request	yes (partial list of comparable sites with no restrictions regarding its use)	yes (partial list of comparable sites with no restrictions regarding its use)
Updates covered by standard software maintenance fee	all updates annually	all updates monthly
• Schedule for providing standard software updates to clients	yes	yes
• Clients must install updates in specified timespans to avoid maintenance fee increase	no	no
Fee for software modifications to comply with federal regulations and laws		
Year company began selling LISs (any brand or model)	1986	2004
Most recent LIS go-live at a client site (based on August 2025 survey deadline)	July 2025	February 2025
Last product release or update for featured LIS	January 2025 (version 22.01)	July 2025 (version 9.31)
Total No. of contracts for sites operating LIS in U.S.	454 (40 clients part of multi-site contracts)	81
No. of U.S. sales and installations of LIS between August 2024–July 2025	15 sales/15 installations	2 sales/2 installations
Total No. of U.S. sites operating LIS (hospitals/independent labs/clinics or group practices/public health labs/other sites)	494 (494/0/not tracked/not tracked/0)	91 (0/68/22/0/1–veterinary pathology)
• Approx. percentage of high-vol.* U.S. site installs/Low-vol.** U.S. site installs	1%/99%	40%/60%
Foreign locations where company actively markets LIS for clinical lab use	none	none
• Foreign locations where LIS has been installed for clinical lab use	—	—
Human languages (other than English) supported by LIS	none	—
Approximate No. of employees in entire company	3,232	1,200
Central hardware or service type	ASP, cloud hosting	software-as-a-service
Programming languages and development applications or environments	Java, Python, Perl, C, C++, .Net Core, Bash, PHP, Golang, JavaScript, HTML, COBOL	C#
Operating system(s)	Linux, Microsoft Windows	Windows Server 2022 (hosted)
Databases	PostgreSQL	Microsoft SQL
System includes full transaction logging	yes	yes
Features/modules incorporated in product:		
• Chemistry/Hematology/Print barcoded collection labels	installed at client sites (all 3 features)	installed at client sites (all 3 features)
• Microbiology/Public health microbiology	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
• Surgical pathology/Cytology	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 (all 3 features)
• EHR interface for admission/discharge/transfer (ADT)	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
• EHR interface for packaging results into PDF format	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
• Ad hoc reporting/Rules-based system	installed at client sites/installed at client sites	installed at client sites/installed at client sites
• Management and statistical reporting/Client services or CRM module	installed at client sites/installed at client sites	installed at client sites/installed at client sites
• POL link or Web portal to physician offices/Patient Web portal	installed at client sites/installed at client sites	installed at client sites/installed at client sites
• Commercial reference lab functionality/Compliance checking	installed at client sites/installed at client sites	installed at client sites/available via XiFin patient portal
• Comprehensive billing and accounts receivable or RCM	installed at client sites	installed at client sites/installed at client sites
• Materials management and inventory/Test partition	available via XiFin Empower RCM	available via XiFin Empower RCM
• Remote faxing/Remote printing	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
• 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
• Management and tracking of specimens within lab/Before arriving in lab	not available/not available	installed at client sites/installed at client sites
• QA tools/Environmental health	installed at client sites/installed at client sites	installed at client sites/not available
• Interfaces for sending orders from primary lab to reference lab, handling results return, and status updates	installed at client sites	installed at client sites
• Business analytics/Clinical analytics	installed at client sites/installed at client sites	available via XiFin Empower IQ/installed at client sites
• Ability to schedule patient for test collection/Patient-based test registration	installed at client sites/not available	not available/available via XiFin patient portal
• Ability to coordinate with nurses for collections that phlebotomists cannot perform	installed at client sites	not available
• Interfaces with public health databases using ELR as part of Promoting Interoperability	installed at client sites	installed at client sites
• Results for tests run using different methods show method on clinical reports	installed at client sites	installed at client sites
Barcode symbologies supported by LIS	Codabar (NW-7)	Code 39, Code 128, DataMatrix
Ability to use artificial intelligence (e.g., machine-learning software) with LIS	no	yes (integrates with Paige AI, Proscia, other AI providers; XiFin Empower IQ supports AI analytics for LIS)
LIS can report lab data to public health agencies via automated electronic transmission using specified formats (e.g., HL7 2.5.1, LOINC, SNOMED, etc.) for:		
• Microbiology (culture and sensitivity)	yes	yes
• Other reportable diseases or conditions (e.g., blood lead, immunology, etc.)	yes (any disease or condition, as required)	yes
• Tumor diagnosis and case data to regional cancer registry***	yes	yes
LIS bidirectionally interfaces to other IT vendors' lab systems in live sites	yes	yes
LIS uses third-party middleware for LIS–instrument interfaces	no (interface directly)	combination of direct interfaces and third-party middleware (Data Innovations)
Lab automation systems or workcells to which LIS has a direct interface	Beckman Coulter, Siemens, QuidelOrtho, Thermo Scientific, Olympus, Roche Diagnostics, Abbott	Beckman Coulter, Siemens, Sysmex, Thermo Scientific, Olympus America, Roche, Tecan
LIS supports use of SNOMED CT	yes, for all cases	yes, for all cases
LIS automatically ingests and applies electronic updates of tables and rules from organizations and government agencies	yes (AMA, CPT, LOINC)	yes (CPT, ICD codes)
LIS allows for image capture, display, reporting	yes	yes
LIS provides indexed field in each test definition for LOINC code	yes (provide LOINC dictionary for a fee with install)	yes
Company provides LIS clients with positive patient ID software to identify patients and/or blood specimens collected at bedside	software to identify patients integrated in LIS—no additional fee	no
Client gets copy of source code/User group that meets on established schedule	escrow/yes (in person and via webinar)	no/yes (via webinar)
Qualified users or third parties can modify or augment LIS functions or features	yes (client users)	yes (client users)
Methods by which users can tailor LIS in their own setting	ad hoc query tools, dictionary settings, workflow configuration, tailored worklists	ad hoc query tools, user-defined interfaces, dictionary settings, read/write privileges, workflow configuration, tailored worklists, case types, data-entry screens, others
Distinguishing product features (supplied by company)	• fully integrated EHR and ONC-certified HIT • robust interface-management system supports requests for interoperability with other vendors' systems • on-site and remote training and support for end users	• cloud solution that includes monthly upgrades • configurable workflows; scalability; CP, AP, molecular, and NGS • comprehensive reports that combine multiple test results into a single report for clinicians
*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		
***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 Thrive EHR–LIS from CPSI	†formerly XiFin LIS

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