HUMAN HEALTH

ENVIRONMENTAL HEALTH

OneSource®
Laboratory Services

BRIDGE THE GAP BETWEEN YOUR LAB INSTRUMENT AND INFORMATION TECHNOLOGY

OneSource
Lab Computing Services

PerkinElmer®
For the Better

OneSource®
Laboratory Services

In today's challenging business environment, optimizing scientific productivity is key to successful and sustainable growth. PerkinElmer's Lab Information Technology (IT), an integral offering of our OneSource® Laboratory Services, offer a number of solutions to help labs optimize their scientific productivity through the effective implementation and use of information technology. Lab IT solutions include Scientific Application Services, Scientific Data Services, Computer Systems Validation Services and Lab Computing Services. These service solutions are designed to deliver scientific and technical expertise with defined project management and information technology process methodologies so that your scientific IT requirements can be implemented and executed to deliver predictable and measurable outcomes, regardless of computer hardware, application software or instrument technology vendor.

LAB COMPUTING SERVICES

The laboratory computing environment is very different from the general business computing environment because scientific applications, including those specialized software systems that drive instruments, have system requirements which specify the operating system, patch level, and browser versions that must be satisfied to guarantee operability. Our Lab Computing Services can meet your demanding needs and eliminate problems your lab may be experiencing in integrating the necessary information technology skills, instrument technology knowledge, and compliance expertise into a single solution to enable maximum scientific productivity.

Lab Computing Services are customizable and span the entire system lifecycle of the scientific IT assets deployed in your laboratory – from initial planning and deployment to production support and eventually decommissioning. We recognize that often internal IT organizations prefer to push patches or upgrades to client workstations. However, this practice may render specific applications inoperable and cause unnecessary scientific downtime. Our services maximize the degree of lab computing standardization possible, while also acknowledging that some systems cannot be upgraded and will require custom service.

In addition, laboratory computer systems often require validation to ensure compliance. This time-consuming process requires that any changes to a system must be evaluated for their impact on compliance. Often, when undergoing changes, system validation documentation, such as a configuration specification, will require revision and Lab Computing Services will also address this need.

Lab Computing Productivity Assessments

PerkinElmer understands the intricacies of lab technology – both information technology and instrument technology. This combination of knowledge is essential in assessing and improving lab computing. In a Lab Computing Productivity Assessment, the current state of the operating processes for lab computing technology will be assessed and recommendations made for improvement.

Specifically, in a Lab Computing Productivity Assessment, the following essential lab computing operations are analyzed:

Inventory of information and instrumentation technology assets	✓
Asset management	✓
Data loss prevention (DLP) strategy	✓
Data storage and backup strategies	✓
Antivirus verification and deployment approaches	✓
Procurement and onboarding process of new lab technology	✓
Decommissioning and redeployment process	✓
Case handling and service level metric	✓
Security, user authentication, system privileges and firewall procedures	✓
Systems uptime strategies	✓
Systems integration strategy	✓
Change management process	✓

Lab Computing Projects

PerkinElmer works with clients on critical initiatives focused on the management of laboratory IT assets and their inherent risks. Our unique combination of instrument knowledge, IT skills, and practical compliance experience proves invaluable to the success of these efforts. Lab computing projects include the following:

Inventory of IT assets – The first step to effectively managing IT assets of the laboratory is to take inventory and determine the state of each asset. An effective inventory captures details on the computer hardware, operating system, software, network connection, instrument, and instrument software. The inventory should also capture data backup information, physical location, and validation status. The inventory becomes the main asset management database and serves as the basis for mitigation plans and must be maintained as current. Network query tools can be employed to facilitate gathering and confirming data.

Mitigation – The information captured by the inventory of assets is used to evaluate each system against platform and security requirements. A mitigation plan is formulated for each system and/or each unmet requirement. Prioritization is based on the risk of data loss and the risk to infrastructure integrity.

Deployment of standard platform – The deployment of a corporate standard is an effective measure in minimizing risk to the corporate network. The routes to implementation of a standard include deploying patches to an existing computer, the replacement of a vendor-provided computer with a standard corporate machine, and deployment of enterprise applications such as an antivirus solution. Regardless of route, deployment of standards to a lab computer requires evaluating compatibility with the scientific application(s). Actual deployment also entails planning for failure by taking safety measures through the use of ghosting technology prior to deployment. Disruption to operations must also be minimized.

Deployment of data sweep technology – Laboratory data collected on non-enterprise systems are often stored on local machines. The implementation of data sweep technology is an essential component of a data loss strategy, removing the burden of data backup and storage from the scientist while satisfying 21 CFR Part 11 requirements. Successful deployment requires knowledge of:

- the scientific application
- the different types of data files, including the raw data acquired
- files used for acquisition
- files used to generate processed results
- the requirements to reprocess data

Data sweep and utilization of that data within the business process must be verified.

Change management – Modifications to lab computers typically require following change management procedures. A risk-based approach to change management and validation/qualification is utilized to develop a practical approach while maintaining the validated state. An effective deployment to lab computers includes a well-planned change management approach that minimizes redundant efforts and leverages existing data.

Service level agreement-based support solutions – Operationally, critical systems, such as scientific instruments and their attached computers, must have the required support to affect minimal downtime. The effectiveness of this support is rooted in the ability to diagnose and resolve issues that stem from either the instrument and/or the computer. As with the support of non-scientific systems, approved service level agreements are essential for minimizing the impact to the business and for ensuring that regulatory requirements are met. Our support organization will proactively analyze performance against service level agreements and adjust for continuous improvement.

BENEFITS

PerkinElmer's Lab Computing Services are an integral part of our OneSource Laboratory Services program and extend our ability to enable laboratories to concentrate on science, with minimal disruption from the impact of their information technology changes. Benefits of PerkinElmer's Lab Computing Services include:

- Reliable development, deployment and execution of programs and projects through strong management capabilities
- Complete system lifecycle capabilities, including planning, implementation and management of projects
- Instrumentation and information technology expertise
- Laboratory domain knowledge
- Regulatory and compliance knowledge
- Global reach
- Onsite, onshore, near-shore and offshore delivery options

OneSource is the Only One You Need

From Lab IT to preventative maintenance and repair to qualification, calibration and laboratory relocation, we're the only source – the ONE source – you need to help optimize your laboratory operations and cost-effectively manage laboratory assets throughout their entire lifecycle.

We pride ourselves on offering a complete portfolio of laboratory services. So, no matter what the name on the front of an instrument and no matter what the technology inside, we have the knowledge and expertise to take care of it.

OneSource Services

- Instrument Service and Repair
- Qualification and Validation
- Analytical Method Services
- Asset Procurement & Disposition
- Laboratory Relocation
- Lab IT
- Business Intelligence Solutions

To learn more about Lab IT and additional services available from OneSource Laboratory Services, please visit www.perkinelmer.com/labIT or contact your PerkinElmer OneSource Representative.

For a complete listing of our global offices, visit www.perkinelmer.com/ContactUs

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