LIMS SAAS IN CLOUD

What you need to know

E-BOOK 2022

Eusoft

LIMS SAAS IN CLOUD

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The cloud has taken the technology world by storm over the last two decades. Everyone is "moving to the cloud," and companies keep promoting "cloud computing."
But what does that even mean?
The concept of "the cloud" has evolved into a wide range of solutions, but cloud computing is essentially the use of third-party computing power that delivers services over the internet.

What is Cloud Computing?

Cloud computing is provided by companies that own, house, and operate large facilities filled with servers. These facilities are called data centers, and they power the applications, services, and virtual machines delivered to customers. Customers use these to store data, create virtual networks, and deploy applications.
We call it the cloud because everything is stored remotely and delivered via web-based connections. There isn’t one single location where all this information is stored; it’s just accessed by users connected to the internet.
Companies use cloud computing services because this method is cheaper than buying expensive computing hardware. Users simply rent the power of a provider’s data center to virtualize the tools they need. Cloud services are offered on a pay-per-use model, so companies can spend money on what they need now, knowing they have the ability to scale services down the road. The range of cloud services is constantly expanding, but all follow the same delivery model.
One of the simplest ways to demonstrate "the cloud" is through storage. Traditional, local storage will keep files on your hard drive. When you save an image or download a program, it is stored on your device. Cloud storage, on the other hand, stores that file on the web. The file is distributed across remote servers and accessed through the internet.
Cloud computing has evolved from simple file storage and virtualized operating systems to a multi-billion dollar market of enterprise-grade computing services. These services utilize the computing power (servers) of third-party infrastructure providers. Servers create a hosted network capable of delivering storage, bandwidth, processing power and applications.
Cloud computing can do everything from providing the tools necessary to develop an application to delivering it

to the end user. Cloud-based services are traditionally classified into a few large, all-encompassing groups: infrastructure as a service (IaaS), platform as a service (PaaS) and software as a service (SaaS).

IaaS is the oldest, most basic model of cloud computing services. It's bare bones, but extremely powerful. When we talk about cloud infrastructure, we're really talking about servers and computing power. Companies with IaaS offerings essentially rent out the computing power of their server farms on a pay-per-use basis. These server farms power a company's networks, data storage programs, and hypervisors.

PaaS offerings deliver all of that and a bit more. Services here utilize similar pay-per-use models while providing both computing power and development tools to build, test, and deploy applications. These development tools are used to build and maintain applications capable of accessing the internet through the public cloud. PaaS can simplify an application's development process with on-demand development environments, pre-configured networks, and pre-built databases.

SaaS takes all of these infrastructure and development needs out of the picture. SaaS solutions are delivered to users in their fully functional form. They can be just about any kind of application for virtually any purpose, from CRM software to team collaboration software tools. These apps store and access data from the cloud and deliver information to users anywhere with an internet connection.

Types of Cloud Computing

Aside from the three main classifications of cloud computing services (IaaS, PaaS and SaaS), there are three major types of "clouds." Public, private, and hybrid clouds utilize similar infrastructure, but are managed very differently. Clients typically choose a type of cloud based on their ability to manage cloud systems and their demands for security.

Private Cloud

The private cloud consists of dedicated resources and is operated by a single organization. Infrastructure could be managed by a third-party cloud service provider or managed internally.

Companies managing a private cloud internally would need their own data center resources and management team. Managed private clouds will be hosted remotely and give companies varying levels of control. An internally controlled private cloud will give the company more control, along with significantly more responsibility. Increased control allows companies to choose the hardware and resources they utilize. It also gives them the ability to customize security systems and maintain their own standards. They can also monitor their own networks, balance their own workloads, and allocate their own resources. As a result of this increased control, companies must spend more on resources and staffing.

Managing infrastructural resources and maintaining a skilled staff can become incredibly expensive very quickly.

The upfront cost for a server can range anywhere from $3,000 to $5,000, depending on a company's needs. (That does not include the implementation and setup costs, which can also be in the thousands.) Warranties and replacement can be expensive as well, but the real costs come from

maintenance and energy. The energy cost of data centers across the USA is expected to exceed $13 billion annually by 2020. Data centers are expected to consume one-fifth of the world's power by 2025. While a smaller company would not require an entire data center, private clouds remain significantly more expensive than public and hybrid options.

Public Cloud

Public clouds are the most commonly used services in the cloud computing world. These clouds utilize infrastructure owned and operated by third-party cloud service providers. Companies don't build their own data centers or purchase their own servers. They also don't have to manage or maintain those hardware resources. In return, the business receives whatever software, middleware, and virtualized hardware they need. Public cloud providers pool their resources to serve multiple customers on shared hardware the provider manages themselves. Providers will allocate resources, provision workloads, and configure multi-tenant environments. These kinds of services are delivered by major cloud providers such as Google and Microsoft.

They build giant data centers and distributed computing power across their own hardware resources to manage workloads and ensure availability for millions of customers.

Public cloud services are used in some capacity by 92 percent of companies, according to RightScale's 2018 State of the Cloud Report. That survey was not limited to software and technology companies, either. Those industries made up half the respondents, but it studied many financial services, education, and healthcare companies, among many other industries.

The public cloud remains a popular choice for small, medium, and enterprise businesses. It has gained significant popularity over recent years because it is cheaper, requires less maintenance, and provides virtually unlimited scalability.

In 2020, the public cloud services market is expected to reach around 257.9 billion U.S. dollars in size and by 2022 market revenue is forecast to exceed 364 billion U.S. dollars

Hybrid Cloud

Hybrid clouds combine both public and private cloud services. Many businesses choose hybrid cloud systems to pair the control of private cloud infrastructure and the cost of public cloud services. They work by allowing businesses to move data, applications, and workloads between private and public cloud environments. Companies can make limited investments in on-premises infrastructure and utilize the scalability of public cloud services as their computing demands grow. They will keep their sensitive data and business-critical information stored on the premises and leave high-volume or public-facing needs to the public cloud. Many businesses will use these to increase control over the data and processes with larger compliance needs.

Since public cloud services are offered on a pay-per-use plan, some businesses may set a threshold for what they can handle on local infrastructure and transition workloads to the public cloud if demand spikes. This limits the cost of their public cloud spending while keeping control over the majority of their computing infrastructure and operations.

These clouds can offer a “best of both worlds” solution, but **require greater upfront and long-term investment**. Companies will need to work with their cloud provider as they set up on-premises hardware or migrate workloads between public and private clouds. They will also need dedicated staff to monitor and manage local hardware. These systems can also be complex to set up and may require significant support from cloud providers.

Benefits of Cloud Computing

There is a wide range of benefits from cloud computing, many of which have already been discussed. There’s obviously a reason nearly any company you can think of has begun using cloud technologies to some extent. Here are a few highlights to consider if you and your company are determining whether or not to adopt cloud computing practices.

Cost

Both the upfront cost and total cost of ownership for most IT infrastructure are not realistically affordable for small businesses. Cloud computing services provide an ideal solution for companies to expand their technological capabilities and only pay for what they use. Instead of investing in costly hardware and hiring dedicated maintenance staff, companies can choose from an array of plug-and-play options to build IT solutions that fit their needs.

Scalability

Technology companies and other startups facing rapid growth are in the perfect position to adopt cloud computing technologies. They can begin small, paying for a few heads or one virtual cloud and ramp up their services as demand grows. Businesses still have to plan for future costs, but can rest easy knowing the computing power they need is available at the click of a button. Companies that develop applications or provide cloud services can also benefit greatly from cloud services. They can get the tools they need to develop applications and prebuilt components to expedite time to market. As traffic to their site or a user base grows, companies can increase their service plans to meet the needs of their users.

Maintenance

Companies outsourcing their computing needs have a reduced need for hardware maintenance and require fewer skilled staff members to maintain complex infrastructure. Servers require frequent updates and continuous monitoring that genuinely require dedicated staff. The cost of outsourcing management services, employing skilled professionals, and paying to replace hardware can add up quickly. Much of the effort and expenses can instead be put on cloud service providers.

Skilled IT talent is in high demand, and we’ve already seen a growing shortage of skilled workers; security professionals or IoT developers can be hard to find and expensive to employ. If their work is outsourced to the cloud or a

cloud service provider, the company can spend less time and money finding and employing skilled IT staff. Instead, they can spend more time providing services and improving applications.

Functionality

Plug-and-play components, along with third-party integrations, can add significant levels of functionality to cloud-based applications. Companies can easily build cloud databases and sync them to applications to improve information delivery. They can add big data services to better understand their application performance, security, and user base. There are hundreds of prebuilt tools to improve your network and application performance or security and IT management capabilities.

Third-party integration services are also capable of expanding application functionality. They can help companies share data and improve product management or better deliver services. They can also help applications work in unison through distributed application development or triggered actions.

History of Cloud Computing

1993 - As early as 1993, distributed computing systems were referred to as “the cloud.” The first documented case was General Magic and AT&T’s Telescript and PersonaLink technologies

1997 - “Cloud computing,” as a term, was coined by University of Texas professor, Ramnath Chellappa. This occurs as companies begin adopting virtualization technologies and adopting the service provider model for application delivery.

1999 - Salesforce launches Salesforce.com, becoming a pioneer in software as a service (SaaS) solutions.

2002 - AWS launches, releasing a number of disparate services via the online marketplace, Amazon Mechanical Turk.

2005-2008 - Web 2.0 emerges, popularizing browser-based applications and virtual communities.

2007 - Dropbox launches, making cloud storage widely available to both businesses and individuals.

2008 - Google releases Google App Engine beta, an early cloud platform as a service (PaaS), used to build and host scalable applications.

2012-Today - Companies continue investing in cloud computing technologies. from infrastructure as a service (IaaS) to software as a service (SaaS). The cloud computing market exceeds growth expectations, booming from $40.96 billion in 2012 to 364 billion U.S. dollars

The Cloud Security Challenge

There's no doubt that choosing to upload your data to the cloud offers many advantages: it's inexpensive and easy to access, it doesn't require maintaining your own hardware and you've got experts on-call if there's ever an issue. All these advantages have proven that cloud platforms are a necessary and vital tool for the advancement of modern-day industry.
However, some issues are still a challenge for the online world, first of all that of protecting sensitive data.
In fact, in discussions around cloud computing, security is often highest on the list of concerns. No matter how many protections cloud vendors put onto their files, there is still an inherent perception that once data is outside of an organization’s direct control, it has lower overall security. Questions of privacy and data sovereignty are still the biggest factors holding many companies back from embracing cloud-based services.
While the concern is understandable, (data is among the most strategic and important assets an organization has!) today's reality is that - when done right - data security in cloud computing can be as good or better than it is in traditional on-premise IT platforms. In the words of Eran Feiganbaum, director of security for Google Apps, "Cloud computing, when IT software and services are delivered over the web and through a browser, is a paradigm shift, similar to taking your jewelry out of your sock drawer and placing it in the bank".
It’s clear that, by its very nature, cloud computing involves some ceding of control from the customer to the service provider. However, control does not mean security. In fact, data security in cloud computing is potentially superior to security in the typical corporate data center. This is because your cloud provider’s staff really has only one job: to protect your data. One result is that cloud provider’s staff brings a level of expertise in data security operations that many corporations cannot reach. Moreover, since security costs are spread among a large number of customers in cloud data centers, cloud operators have the resources to put security measures in place for protection that cannot be achieved at home, or on the corporate network.

"Control does not mean security"

Geographical diversity is another significant benefit of

keeping data in the cloud. Because your cloud provider isn’t located where you are, you can avoid the likelihood of a single event taking out both your data center and your critical data. If you choose well, your cloud provider will have geographically diverse data centers, so your data is preserved in more than one place.
Add this to the reputational and business damage that a cloud provider would suffer should their data not be secure and it’s easy to see why it’s in their vested interest to uphold high levels of security.

Checking the providers

To ensure better data security, make sure you sign up with a service provider that has stringent security policies in place.
Every cloud technology provider will probably say that their offer is legitimate and safe, but in order to stay on the safe side, it is a good idea to use an option that has a 3rd party certification. The leading public cloud heavyweight Microsoft, for example, was the first major cloud provider to be recognized by the EU authority for data protection and contractually commits to complying with ISO/IEC 27018.
Of course, not all cloud providers are equal in their dedication to security: poor configuration of the cloud can lead to circumvention of internal policies that classify sensitive data and protect access to it and not all cloud services offer strong authentication, encryption (both in transit and at rest) and audit logging;
A reliable cloud provider should:
- use customer data only to provide the services agreed and for purposes compatible with providing those services;
- not use customer data or derive information from it for advertising;
- take strong measures to help protect customer data from inappropriate access or use by unauthorized persons, either external or internal;
- prevent customers from gaining access to one another’s data;
- maintain an ever-expanding network of datacenters around the globe, and verify that each datacenter meets stringent security requirements;
- comply with international data protection laws regarding transfers of customer data across borders;
- not offer direct access to customer data and not give any third party (including law enforcement, other government entity, or civil litigant) direct or unfettered access to customer data.

Tools

Firewalls are the foundation of technical security for any network, including one in the Cloud. A firewall is a hardware or software system which applies rules to all traffic passing through the perimeter of a network. Data passing in or out of your Cloud environment is inspected and filtered by the firewall based on the rules, keeping suspicious traffic out, and sensitive data in. This is what provides the network barrier between your systems and other systems in the data center.

Confidentiality

Controlling access to your Cloud with a managed firewall appliance helps ensure the confidentiality of your data. Firewalls can identify who is requesting access to the network and whether they are authorized to access it. They also create logs that allow cybersecurity professionals to monitor network activity for signs of suspicious or risky access, and if necessary adjust the rules to preserve confidentiality by blocking that traffic.
Confidentiality is further ensured with encryption.

Data in storage, backup, or in transit over a network can be encrypted so that it is worthless and does not reveal sensitive information to anyone who does not also possess the private key used to decrypt it.

DDoS Prevention and Mitigation

Distributed denial of service (DDoS) attacks are costly and disruptive, and they can affect any size of a business in any industry. They generally consist of a flood of traffic targeted at a certain element in the network with the intention of overloading that element to the point that it stops functioning as expected. Defending against these attacks requires the robust infrastructure of a service provider with a network geographically distributed across multiple points-of-presence.

New Best Practice

Most enterprises and the majority of small and medium-sized businesses have been using the Cloud for years, and the number of companies of every size using the Cloud is increasing in practically every industry.

Small and medium-sized businesses, enterprises, and governments are moving workloads to the Cloud, including their most sensitive data. This change is driven largely by cost, performance, and agility advantages delivered by cloud computing but also represents a vote of confidence from each organization that makes the jump to the Cloud.
Central to this confidence is the realization that service providers offer experience and expertise which are far beyond most organizations, particularly those not dedicated to IT services or related technical fields.
Professional management is a major part of what makes Cloud or any other IT environment secure.
A quality service provider can identify and deploy the appropriate solutions to allow any organization to benefit from the agility and low cost of the Cloud while maintaining the security of the environment.

Cloud is “probably more secure than conventionally stored data”

Quentin Hardy, former Deputy Technology Editor of the New York Times

Emerging Cloud Computing Technologies

There are a number of emerging technologies associated with cloud computing, which should come as no surprise; you could make an argument that virtually all technology trends are impacted by cloud computing to some extent. The following cloud-based technology concepts are witnessing rapid adoption and innovation. They're drawing significant interest from technology professionals driving investment for new cloud services and solutions.

IoT

The internet of things (IoT) is a growing network of internet-enabled smart devices. These tools could be anything from a refrigerator to a turbine and include a wide range of innovative everyday devices. Each device is referred to as an endpoint, or a node, connected to some central network.

Business adoption of IoT technology has grown significantly in recent years because IoT devices can add significant functionality to simple endpoints and gather large amounts of data on users, networks, and performance. Many cloud service providers have launched IoT-centric solutions to help users manage and connect their endpoints.

Experts regard IoT are important, because this digital age has increased demand for internet-enabled devices. Individuals like when their home security systems are accessible from their phone. (They also like the speaker in their bathroom that they can use to play music or purchase clothes.) The business impacts are significant because industrial hardware can be easily connected to cloud-based management systems. An energy company with hundreds of wind turbines operating over a large physical space can simultaneously monitor each turbine's performance. They can use data gathered from each endpoint to better understand their networking architecture and receive real-time alerts for maintenance issues.

Eventually, an IoT-enabled endpoint could sit in every room of your home, every part of your office, and every section of an industrial facility. Consumers receive improved tools for everyday needs while companies better understand their machinery or IT systems.

AI

Artificial intelligence (AI) has been a buzzword since

The Terminator was released in 1984. Today's technology looks very different from Skynet systems and their anthropomorphic robots. But some of the same underlying concepts remain intact. Modern AI capabilities utilize machine learning and neural networks that help computer systems learn the same way humans do. Innovative companies are using these technological concepts to improve application performance, automate tasks, and expand the range of services and solutions they're able to provide.

Cloud computing comes into play when service providers make AI applications deliverable to any company that can pay for them. Instead of spending time developing complex machine learning algorithms, they can simply utilize a cloud provider's machine learning API and gain all its functionality. They can improve their analytics experience and expand their security systems with applications that learn and adapt to personalized needs. Companies can gain significant insight into user behaviors, business operations, and customer interactions with machine learning integrations.
Machine learning as a service is offered by all of the largest cloud service providers. Their customers can utilize pre-built algorithms and easily implement them into both internal or external applications. They can be used for anything from improving a chatbot's natural language processing capabilities to adding AI for business critical applications.

Blockchain

Blockchain technology is about as trendy as technology gets. Much of the interest was initially generated by cryptocurrency growth but has expanded its reach into hundreds of niche industries. Blockchain concepts can be utilized for virtually anything that requires a transaction, from financial services to real estate dealings. Blockchain technology works in two major parts: encrypting data and creating a public ledger. The person on each end of the transaction remains anonymous while the transaction itself is documented publicly. This has big impacts for data privacy and can speed up operational processes related to transactional operations.
Cloud providers have begun to offer platforms for individuals to build blockchain solutions. They help users create transactional applications and the public ledger system used to document and facilitate interactions. Much like a traditional PaaS offering, cloud service customers are given development tools and prebuilt backend components in addition to the blockchain ledger system.
Developers can use these tools to build secure, industry-specific transactional applications or innovative database and security solutions. The encryption concepts that lie at the core of blockchain technology can be applied to most computing concepts, from databases to

e-commerce transactions. Cloud providers develop the blockchain solution and provide the underlying infrastructure necessary to power finalized applications. Users can take those tools, rent computing power, and deliver groundbreaking solutions that improve security and efficiency for their users.

Big Data

Big data is an evolving term that describes a large volume of structured, semi-structured and unstructured data that has the potential to be mined for information and used in machine learning projects and other advanced analytics applications. Big data is often characterized by the 3Vs: the extreme **volume** of data, the wide **variety** of data types and the **velocity** at which the data must be processed. Those characteristics were first identified by Gartner analyst Doug Laney in a report published in 2001. More recently, several other Vs have been added to descriptions of big data, including veracity, value and variability. Although big data doesn't equate to any specific volume of data, the term is often used to describe terabytes, petabytes and even exabytes of data captured over time.
Companies take this information and use it for predictive analytics, customer targeting, and optimizing business processes.
Governments can develop efficient systems for managing petabytes worth of citizen information.
Manufacturing companies can predict market trends and improve their internal operating systems.Large health care providers can store and process millions of electronic health records with ease. There are hundreds of ways to utilize this data, but some industries may benefit more than others.
The need to handle big data velocity imposes unique demands on the underlying compute infrastructure. The computing power required to quickly process huge volumes and varieties of data can overwhelm a single server or server cluster.
Organizations must apply adequate processing capacity to big data tasks to achieve the required velocity. This can potentially demand hundreds or thousands of servers that can distribute the processing work and operate collaboratively in a clustered architecture.
Achieving such velocity in a cost-effective manner is also a challenge. Many enterprise leaders are reticent to invest in an extensive server and storage infrastructure to support big data workloads, particularly ones that don't run 24/7. As a result, public cloud computing is now a primary vehicle for hosting big data systems. A public cloud provider can store petabytes of data and scale up the required number of servers just long enough to complete a big data analytics project. The business only pays for the storage and compute time actually used, and the cloud instances can be turned off until they're needed again.

Containers

Containerized applications have become very popular in the cloud services and microservices market. The term is used to describe an operating-system-level virtualization and code packaging delivery model. Containers will store components of an application’s code, libraries, and runtime.
This makes it easier to store and manage the various components of an application

while enabling their use on virtually any computer connected to the internet. One container may store an application while another contains a web server. These components can be networked together and create a simplified application delivery model. Containers isolate resources from their internal components which increases their efficiency and security capabilities. They also make it easier to create plug-and-play networking solutions or add functionality to existing applications.

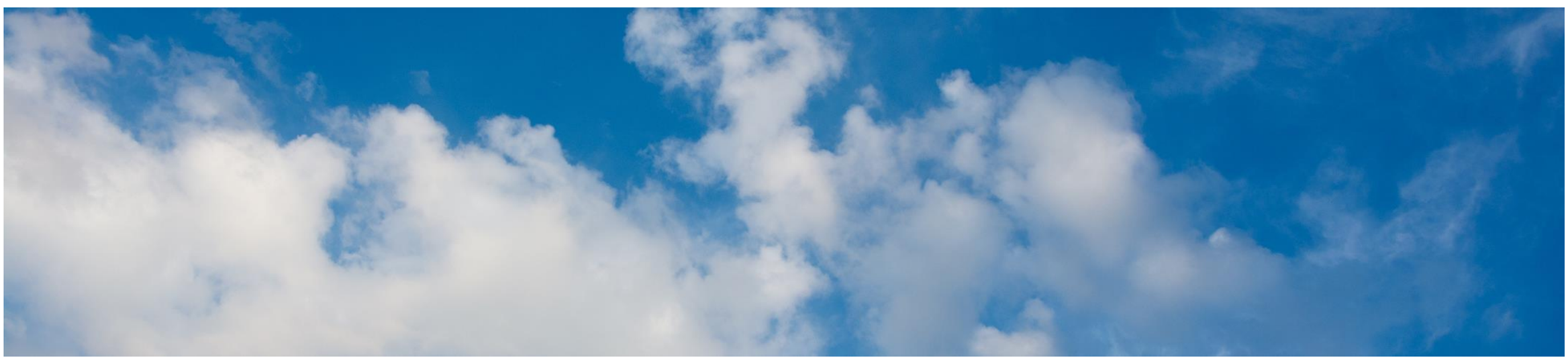
Cloud service providers offer management, orchestration, and networking solutions to let users build, deploy, and connect containerized applications. Companies can create isolated environments for application delivery while utilizing the computing power of their service provider. They can add components or deploy new offerings without affecting their other containerized applications in use.

“Cloud has the unique position of not only being a technology trend and enabler of new business models, but also as the foundation for implementations of other key trends such as IoT, AI/Cognitive, Social Platforms, Mobility, and Trusted Computing (Blockchain).”

“Cloud providers are accelerating their infrastructure investments to keep pace with growing demand including hyperscale data factories and more points-of-presence to handle global solutions.”

“Cloud will lift up all digital solutions to a new benchmark level and this will have a large positive impact to the experience employees have with the digital solutions they interact with day-to-day, as they will become more mobile/available, scalable, reliable, and secure than they previously had been. The tools and products will be smarter and more connected than ever before.”

Justin Kilimnik,
Director, Technology Advisory at EY



The Future of Cloud Computing

Today, the cloud is already everywhere all at once, but that doesn’t mean it’s stopped evolving. Cloud computing technologies of the future will only be more powerful and more common than they already are. It all started with cloud storage and virtual machines, and it’s already expanded to cover nearly all aspects of a company’s software stack.

For individuals, cloud storage will become cheaper and provide endless space for securing files, media, and applications. Applications will be more flexible and personalized to your personal needs. They will also scale with ease if your needs grow. SaaS solutions will be cheaper and range wide enough to serve just about any purpose you can think of. You’ll only pay for what you use and have little need for expensive, monolithic solutions, because plug-and-play tools are at your fingertips.

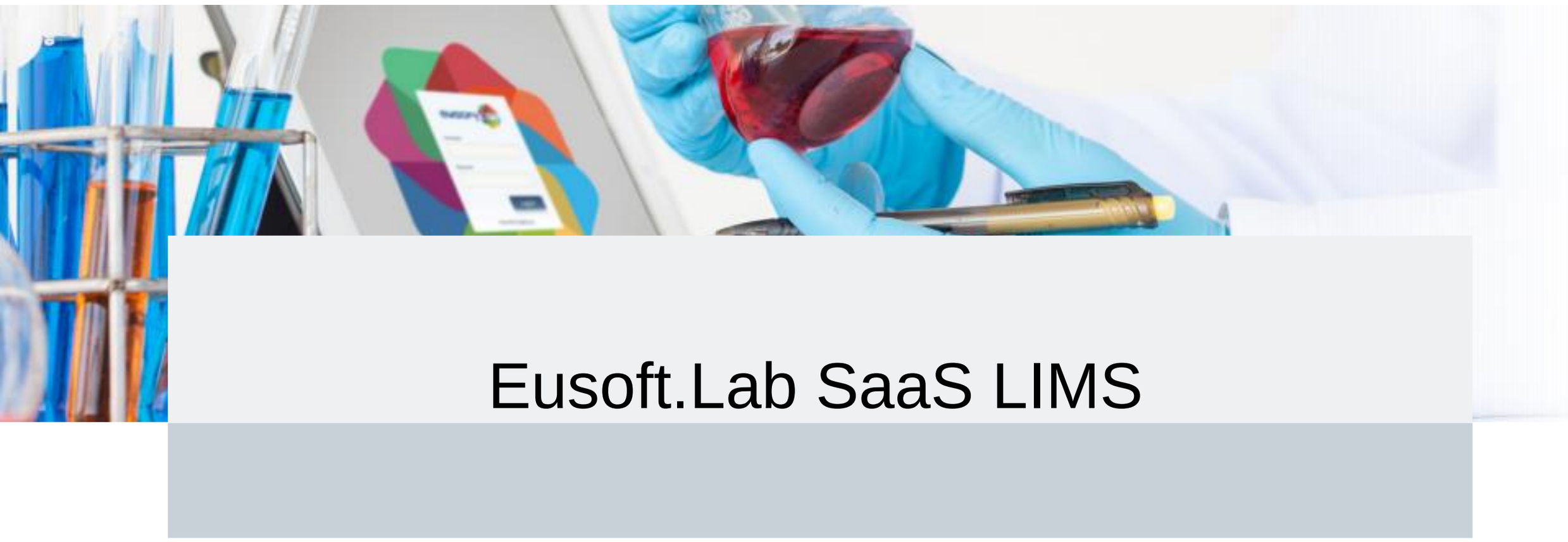
For businesses, cost savings are probably the first thought worth discussing. It will be easier and cheaper to build hybrid IT systems that store data securely while utilizing the power of public cloud services. It also will be easier to develop intelligent applications and process management solutions that make your deliverables more powerful and your operations more efficient.

Growing companies can already utilize scalable solutions and remain consistent as they grow. But the range of services will become wider and each part will be easier to implement. Big data solutions will help you better understand users, and blockchain technology will keep their data safe. Cloud behemoths such as Google and Microsoft will continue to grow. Startups will continue to emerge with new, groundbreaking technologies. Threats will remain in the shadows, but security will parallel their growth. It’s fairly safe to say that cloud computing is here to stay.

Cloud Computing in Laboratories

Adopting new computer and infrastructure technologies in labs only makes sense if it results in better and more productive operations.
The rapidly changing field of ICT can be overwhelming. Laboratory work is becoming increasingly collaborative and complex, leveraging multiple technologies to improve scientific measurement techniques and scientific understanding. This exponential rise in the scale of data being generated, combined with the increased collaboration, has resulted in a need to rethink how data is stored, analysed and shared cost-effectively and consequently in the need to have a cloud Laboratory Information Management System (LIMS). Most of the short-term benefits of deploying a cloud LIMS are associated with flexibility and interdisciplinary: the trend toward globalization has a particular impact on laboratories that are often characterized by multisite collaboration. This means that those collaborating on a project must coordinate data and results reported from several sites, exchanging information in a standardized way. This is the case where cloud storage could be an essential requirement so that the results can be shared.
With a SaaS LIMS, the laboratory can directly access it via the web by paying a monthly fee. Software updates, upgrades, security and backup are all managed by the service provider. From a financial perspective, the model is attractive. Instead of spending significant capital and subsidising a lengthy budget and planning process, a system can now be funded on an expenses budget, using a pay-as-you-go pricing model. The cloud will significantly increase the speed of executing big data computing in research because there will be almost no wait for approving costly IT budgets. There is also no need to invest in perpetual and expensive software licenses.
The cloud has the potential to be the best new development going mainstream for laboratories - access to an almost unlimited amount of computer power, combined with an almost unlimited size of disk space and affordable price.

There is a huge difference between applications that offer a web interface and applications natively designed for the Cloud.



Eusoft.Lab SaaS LIMS

Today technology offers organizations great opportunities for innovation and transformation of their business. Cloud and Mobile Apps are the major technology trends that can simplify the management of processes and renew organizational models and productivity. For the laboratory, the acquisition of a cloud-based LIMS usable by mobile tools is essential to reduce complexity and management costs, while achieving a better organizational performance.

Eusoft.Lab LIMS is a Cloud and accessible by mobile application that transforms the way you think of the lab.

Eusoft.Lab is natively designed for use as Software as a Service on cloud computing platforms.

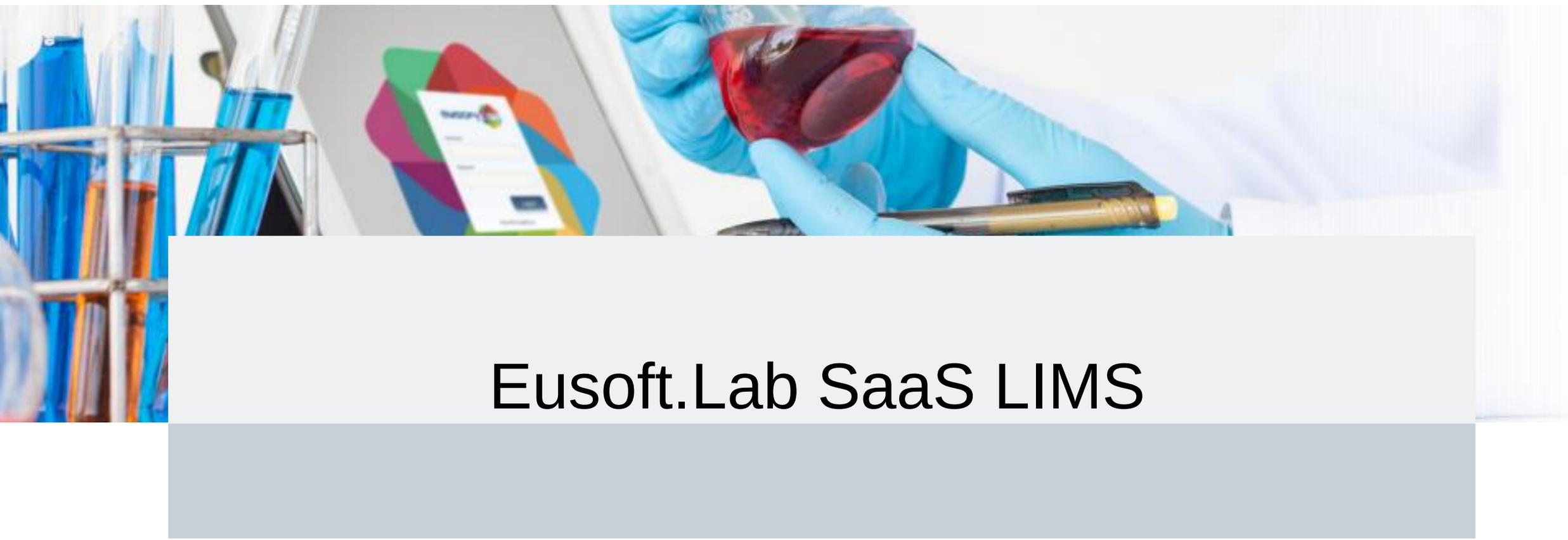
Simplicity and startup costs reduced
Hardware and software applications are provided by the supplier and made available to customers over a network. This, together with the simplicity and speed of implementation, allows a faster ROI than a LIMS system installed in-house.
Scalability
With the LIMS in SaaS it is possible to start as a small project with what you need but with the ability to scale the application over time.
As the needs of the lab change, you can immediately activate new users, new features, storage space, etc.

Safety first
Data security is the focus of everything we do. Our goal is to ensure the safety and protection of your data, more than is possible with a solution installed in house without highly qualified IT staff. To this end we rely on world's leading cloud computing platforms for privacy and data security.

Real-time activities
Eusoft.Lab is accessible from mobile devices through our APP. The laboratory can perform operations including inserting results directly in the field thus increasing the speed and efficiency of carrying out activities.

Mobility into the laboratory
It is no longer necessary to be in the lab to use the LIMS. With our Mobile APP, LIMS it is always available, no matter where you are.

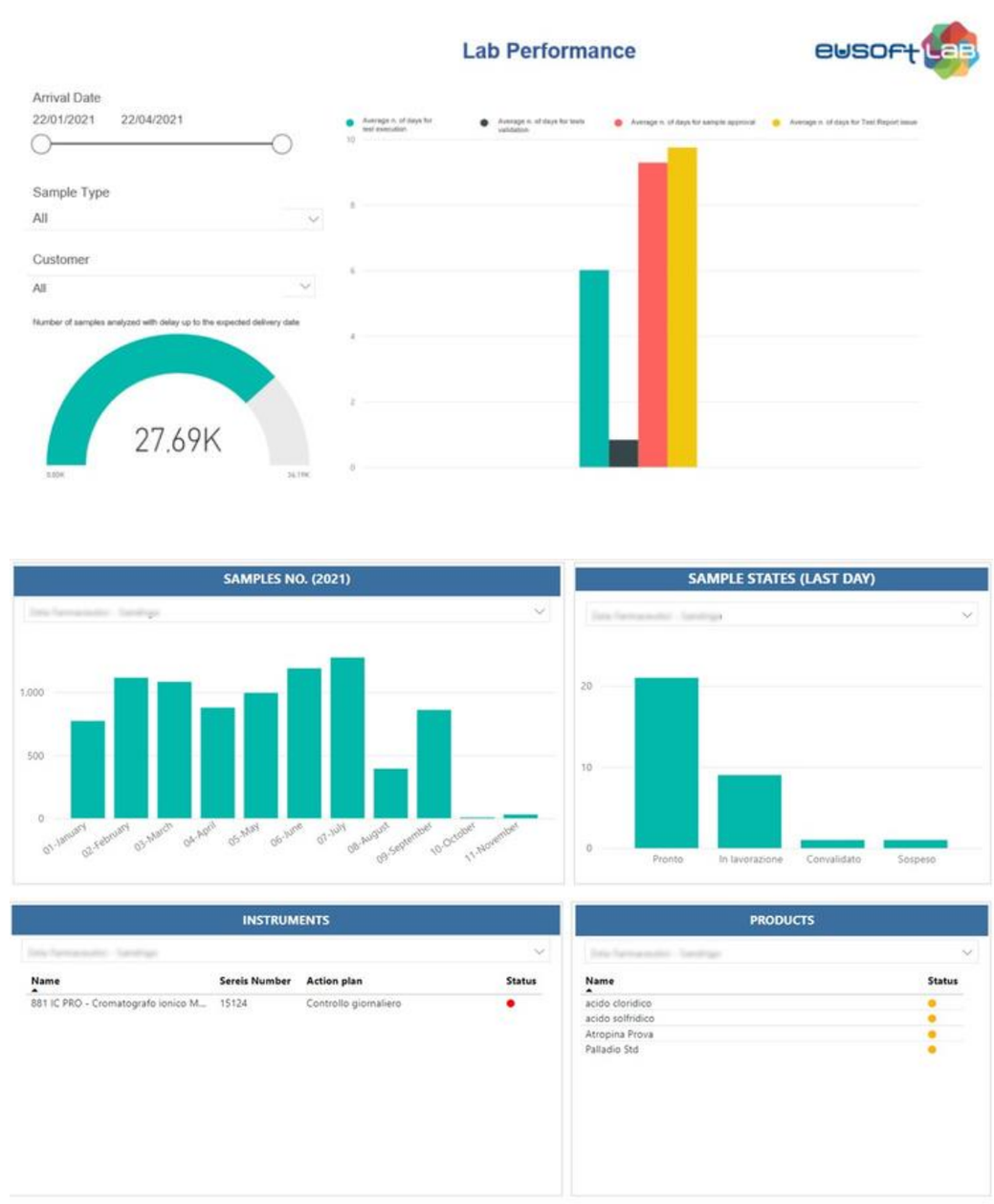
Request a free demo



Eusoft.Lab SaaS LIMS

Eusoft.Lab offers a graphical interface developed with **HTML5** technology, ensures high performance and provides a workspace adaptable to the screen of any fixed or mobile device, thanks to the use of a **responsive form.**

Other peculiarities of Eusoft.Lab are the search and query functions of the data, a standard set of reports for the representation of the results, an even more **powerful** and **effective Business Intelligence** dashboard, new monitoring and alarm mechanisms that automatically detect performance anomalies and speed up troubleshooting, a new audit tracking mode that optimizes the use of cloud resources.



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