



MediLIMS Service Definiton

 MediLIMS

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1 Introduction

MediLIMS software delivers stable and high-performance browser-based LIMS solutions by combining clinical laboratory expertise and best-of-breed technology. Our solutions are adaptable to the specific needs of each diagnostic laboratory and can be locally installed or operated as a managed cloud-based internet service. We provide services that are cost-effective, well-executed, and well-supported to achieve our goal of delivering long-term value to each of our customers.

The seamless and integrated workflow support allows clinical staff to focus on their work and investigations thereby increasing productivity.

We are an agile company that is passionate and dedicated to assisting hospital or commercial pathology laboratories in implementing cutting-edge technologies so that they can expand their services. Our mission is to provide a cost-effective, configurable, responsive, and safe solution.

This document contains an overview of the MediLIMS Laboratory Information System and the associated services that MediLIMS provides.

2 MediLIMS Laboratory Information Management System

MediLIMS provides comprehensive clinical laboratory information management that supports the majority of pathology disciplines and workflows, including Histopathology, Molecular, Microbiology, Biochemistry, Haematology, Blood Transfusion and Immunology. Such systems need to connect to other systems and laboratory analysers and this is accomplished using our MediLIMS Connect package. This solution helps to maximise productivity, enhance data quality and ensure compliance with quality and regulatory requirements.

MediLIMS is highly scalable, so that a single instance can support multiple laboratories, even if those laboratories are in multiple locations. This saves time and reduces costs through increased efficiency. MediLIMS can provide operational information in real time, helping management make better decisions by providing continuously updating key performance indicators.

MediLIMS uses proven, state-of-the-art technology to provide high levels of configurability, performance and scalability. MediLIMS is truly web-based, supporting all modern browsers including those on mobile devices such as tablets and smart phones. This allows you to implement cost-effective and flexible solutions in today's medical laboratory environment.

MediLIMS Connect is a powerful integration engine that delivers intersystem messaging capabilities. This can be managed from a single screen with drag-and-drop configuration and is supported by HL7 certified resources

3 System Infrastructure Requirements

MediLIMS can be deployed as either a local cloud service or a managed cloud-based internet service.

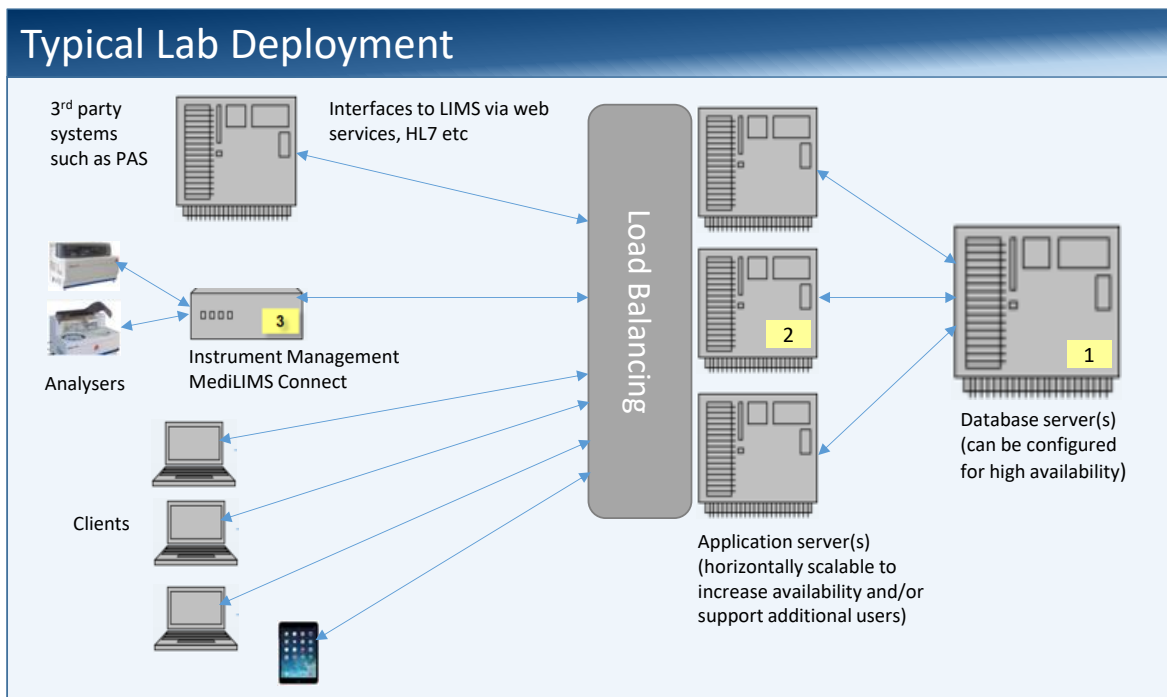


Figure 1 Typical Local Deployment

A typical local MediLIMS deployment is shown diagrammatically in **Error! Reference source not found..**

The heart of the system is the database server. In practice, it is wise to employ two database servers; the second acting as a hot standby server in case of

failure. Incoming requests are load balanced against a farm of application servers. This is horizontally scalable, meaning that additional servers can be added to handle larger number of concurrent users. Application servers can be virtualised if required. Again, in practice, it is recommended that a minimum of two application servers are employed in production instances to provide redundancy.

Laboratory instruments and analysers are connected via the MediLIMS Connect server, which performs the necessary data transformation exercises. This software can run on a standalone server or one of the application servers.

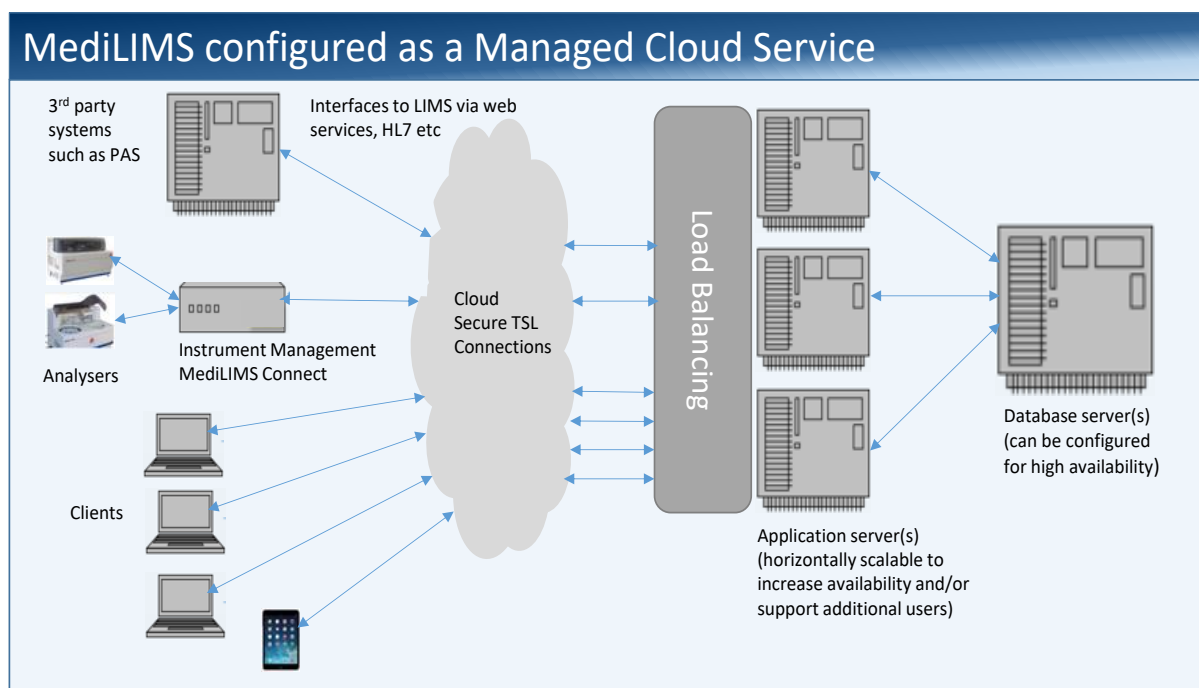


Figure 2 MediLIMS configured as a managed cloud-based internet service

Figure 2 shows MediLIMS configured as a managed cloud-based internet service with centralised infrastructure hosted at AWS, our preferred cloud service partner. The database and application servers are installed at the datacentre and accessed from Laboratory Client devices, analysers and third party systems via secure TSL connections.

Cloud hosting drastically reduces the time required to begin a project, whether constructing an initial proof-of-concept or deploying a full system. There is minimal time and effort navigating the budgetary process for hardware purchases or identifying IT support resources to staff the project

The following sections describe the implementation, service levels and support and additional optional services provided by MediLIMS.

4 Implementation

Implementation services are offered to customers who have purchased MediLIMS.

Typically, a project initiation meeting is held to confirm the scope of the project and to identify key roles and responsibilities and create an agreed project plan.

Implementation typically takes between 3 and 12 months, depending on project complexity. It will involve the configuration of screens and the loading of the core data set such as the user list, panels and tests required, order locations, clinicians etc. Once some core data is available, workflows can be configured and each step of the sample lifecycle reviewed and agreed. Typical stages might include order entry, workflow processing, results entry, technical and clinical authorisation, and report generation and distribution. Support functions such as billing, management reports and key performance indicators will be configured.

Once the configuration stage is completed, system validation and verification can be performed. This culminates in the successful completion of a User Acceptance Test after which the newly commissioned system can move to production mode.

MediLIMS can deliver local System Administration Training and End User Training to appropriately qualified individuals. This is likely to be in the form of individual or group mentoring rather than formal classes.

Customer personnel will be retrained and training materials updated after each upgrade if significant changes have been made.

5 Service Levels and Support

MediLIMS will deliver a system that supports the customer's processing and reporting activity for the duration of the contract, based on the agreed number of concurrent users.

Uptime will be measured over quarterly service cover time. In the case of locally implemented systems, this is subject to the agreed infrastructure provisions being met.

Support services are offered to customers who have deployed MediLIMS within their organisations. It is renewable annually and forms part of the Annual Update Plan and Maintenance Contract (AUP).

Once the system has moved into production mode, any issues or change requests are recorded as support tickets. MediLIMS currently uses third party support desk software which allows customers to create tickets directly.

Unless otherwise specified as part of a customer contract, the MEDILIMS help desk is available Monday to Friday from 9:00 a.m. to 5.00 p.m., excluding UK holidays, to answer questions related to the use of the licensed software covered by the Plan.

MediLIMS Support staff will respond to a customer's support call in accordance with the agreed problem prioritisation and associated response and resolution times.

Monitoring reports shall be provided for each calendar quarter showing service availability and downtime, including a summary of all service failures and corresponding fix times and further details of critical and urgent service failures and issues that remain outstanding.

6 Maintenance

Whilst the Annual Update Plan (AUP) is in force, any new maintenance releases or software patches that are created are made available at no extra charge. These releases may contain bug fixes as well as enhancements to the product. The AUP does not include rights to receive additional user licenses, expand site licenses or new modules developed by MediLIMS or third parties that are offered for sale separately. Support of older software versions may be affected by the release of new revisions of the software.

In most cases, complete update procedure manuals and/or release notes will also be provided. Whenever possible, maintenance releases and software patches are made available via electronic means.

Planned maintenance and software updates will be carried out at times agreed between the customer and MediLIMS.

Back-ups of all files and databases needed to restore the solution will be taken on a daily basis. This will be a MediLIMS responsibility for the cloud-based service, or the customers' for locally installed systems

In the unlikely event of a prolonged service outage, the agreed Business Continuity Plan shall be invoked.

7 Optional Services

7.1 Interfaces

Integration services involves the transfer of data from various laboratory instruments or third party systems to MediLIMS. The connections can be unidirectional or bidirectional and a wide range of interface and messaging protocols may be utilised.

MediLIMS offers a complete range of HL7 data integration and interfacing services to the healthcare industry using its MediLIMS Connect integration engine. MediLIMS Connect delivers advanced inter-system messaging to healthcare providers and vendors; all managed from a single screen with drag-and-drop configuration and supported by HL7 certified resources.

7.2 Data Migration

Data Migration Services are offered to customers who wish to either import sample data from a legacy system or export data in bulk from a MediLIMS system for import into a third party solution. Each project of this type is treated on a case-by-case basis as the requirements for data clean-up and transformation can vary considerably.

In general terms, the process for data migration of legacy data into MediLIMS is that the customer provides a trial set of data in the form of files in an agreed format. MediLIMS personnel examine the supplied data set and create the appropriate data transformation and import scripts.

MediLIMS will also support and provide reasonable co-operation to ensure the orderly transition of the services, including data transfer and migration,

to the customer and/or any replacement supplier in the event of termination or expiry of the contract or support services.