



Product Profile



eUSOFT
more than a LIMS

ABOUT EUISOFT.LAB LIMS

EuSOFT.Lab, natively designed for using as a service (SaaS) on Cloud Computing platforms, is integrated with mobile devices and offers powerful configuration and **Business Intelligence** tools.

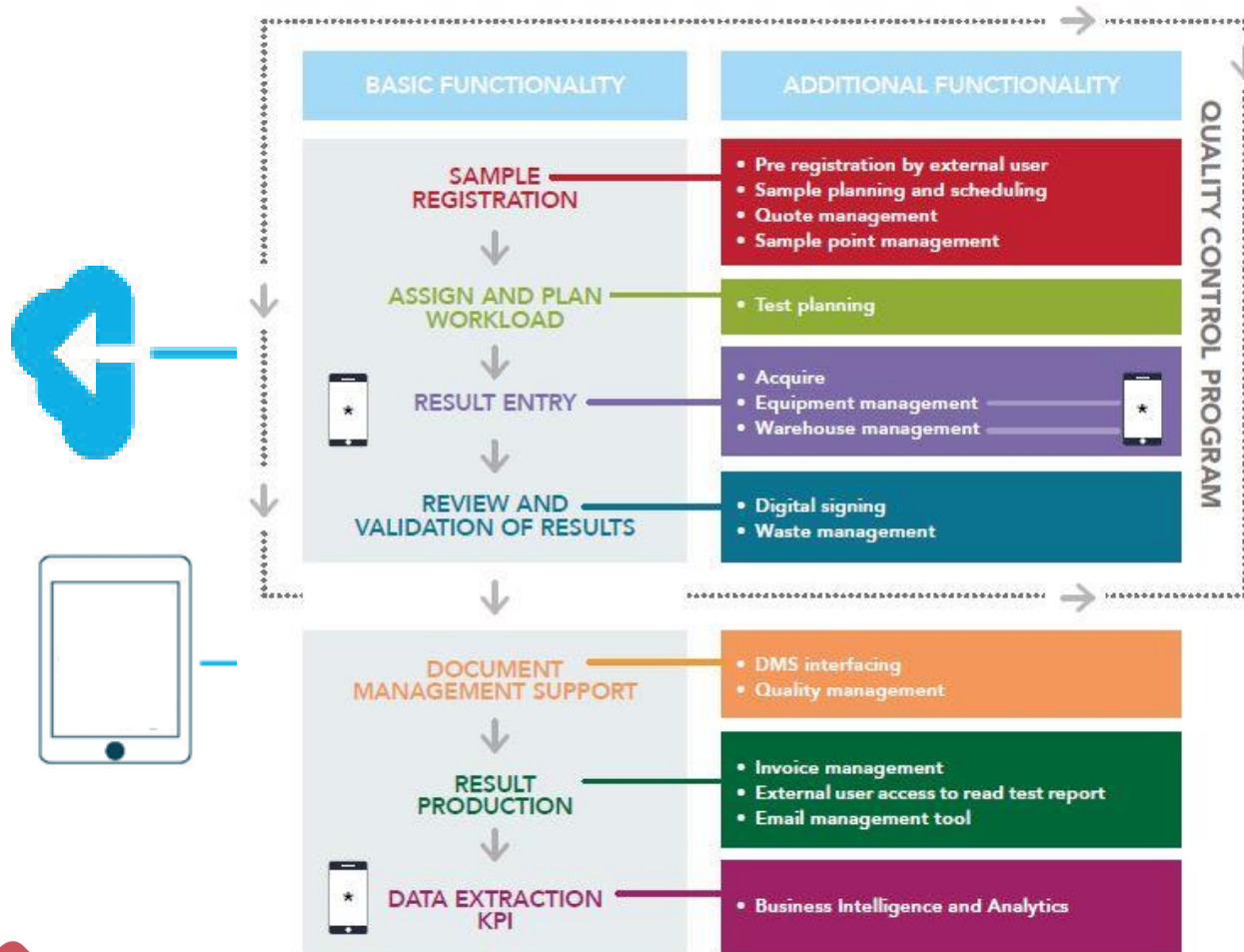
It is a standard **HTML5** web application, so it is highly interactive, platform independent and responsive.

Gartner

EUISOFT listed as sample vendor of SaaS LIMS by **Gartner in 4 Hype Cycles** about Cloud LIMS technologies and highlighted as one of the few LIMS vendors able to manage all phases of **NPD** (New Product Development).

Overview LIMS Eusoft.Lab

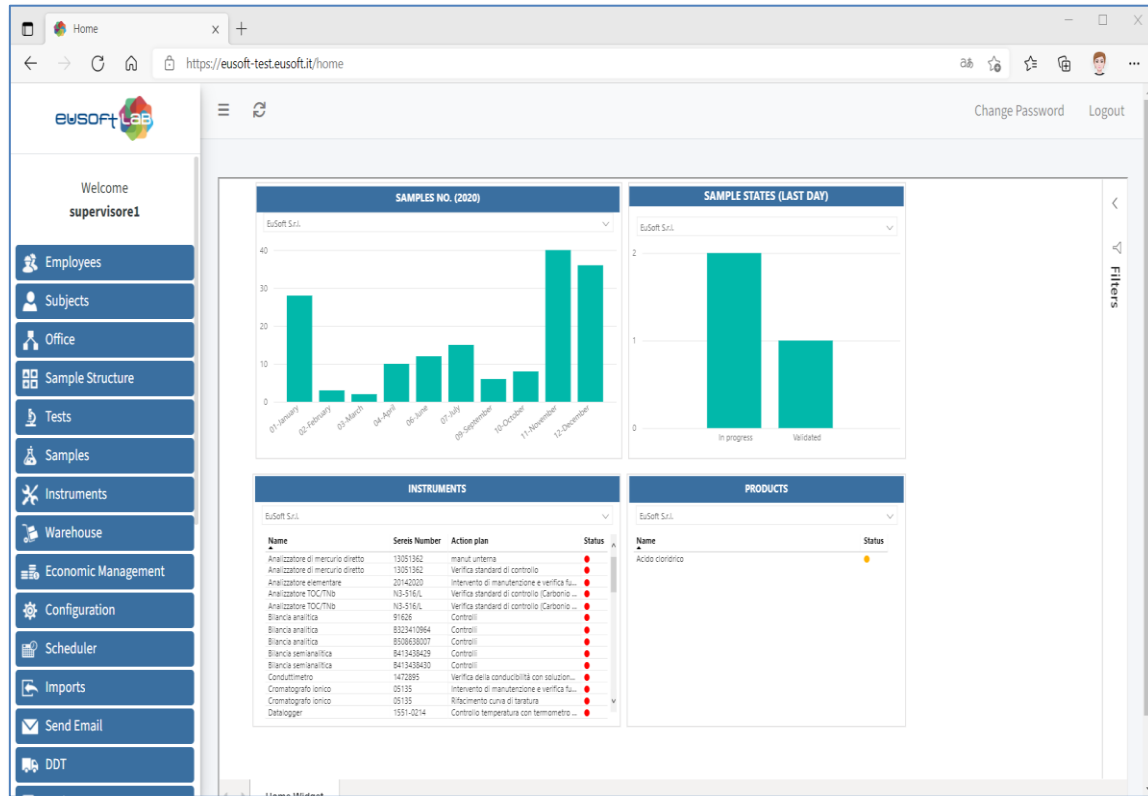
Laboratory Information Management System



FUNCTIONAL
COMPLETENESS
+
INNOVATIVE WEB
TECHNOLOGIES

LIMS Overview

eusoft
more than a lims



**A single platform to manage
all your lab activities**

With Eusoft.Lab you can handle the steps of Acquisition – Processing – Archiving for all data generated by the laboratories:

- Integrated management of laboratory activities
- Time reduction of data entry and management of errors
- Full data traceability
- Application and structural safety
- Immediate availability of data
- Ensure compliance with UNI CEI EN ISO / IEC 17025, ISO 9001 and 21 CFR - PART 11 FDA
- Decision support at various levels

eusoft **LAB**

Eusoft.Lab LIMS Main Benefits

The screenshot displays the Eusoft.Lab LIMS web interface. The browser address bar shows the URL: <https://eusoft-test.eusoft.it/office-structure/office-manage?navigation-context=90b8bdd4-bdc8-0a8a-d9d1-2ac88b991bd3>. The page title is "Organization structure". On the left, there is a navigation menu with options: Employees, Subjects, Office, List, Category, Sample Structure, Tests, Samples, Instruments, Warehouse, Economic Management, Configuration, Scheduler, and Imports. The main content area shows a tree view of the organization structure under "EuSoft Ltd Office". The selected item is "Chemical Department Department". To the right of the tree view is a form for editing the selected office, with fields for: Office (Chemical Department), Office Encode (CD), Address, City, District, ZipCode, Phone Number, Fax, Mail, and Accredited (checked). The footer of the page contains "Copyright © 2021 Eusoft. All rights reserved." and "Version 2.0.0".

- Usable in any browser
- Multi-location & **Multilanguage**
- User-friendly and responsive interface
- Completely customizable without coding

Basic Functionalities

Eusoft.Lab is a LIMS system that can handle all the steps of Acquisition – Processing – Archiving of all data generated by the laboratories and to automate all key processes (acceptance samples, insertion results, validation, generate test reports). The flexibility of Eusoft.Lab allows the laboratory to computerize the management of its activities according to custom specific workflows for each reality.

SAMPLES REGISTRATION

ASSIGNMENT AND WORK PLANNING

RESULT ENTRY

REVIEW AND VALIDATION

REPORTS AND DATA EXTRACTION

The screenshot displays the 'Samples search' interface in a web browser. The URL is <https://eusoftlabappthtml5.azurewebsites.net/samples/samples>. The user is logged in as 'supervisore1' and the department is 'EuSoft Ltd'. The interface includes a search bar, filters, and a table of samples.

			N. Acceptance	N. Childs	Description	Arrival date	Subject	Report Holder	Category	Product
<input type="checkbox"/>			20211	0		07/01/2021 09:41:03	Arconate	Arconate	Meat-free products	Soya protein
<input type="checkbox"/>			20214	0		13/01/2021 09:12:36	Berlingo	Berlingo	Metals	Magnesium
<input type="checkbox"/>			20216	0		16/01/2021 14:32:11	Abano Terme	Abano Terme	Fiore/olio/crema	Fiore
<input type="checkbox"/>			20218	0		22/01/2021 09:18:31	Bienno	Bienno	OLI	Olio d'oliva
<input type="checkbox"/>			202116	0		28/01/2021 15:58:27	Abano Terme	Abano Terme	Metals	Aluminum
<input type="checkbox"/>			202117	0		29/01/2021 07:22:37	Abano Terme	Abano Terme	Metals	Aluminum
<input type="checkbox"/>			202118	3		29/01/2021 09:49:11	Arconate	Arconate	Metals	Iron

Below the main table, there is a 'Select Operation' dropdown and a secondary table with columns: Service, N. Acceptance, Description, Arrival date, Subject, Sampling Point, Category, Product, Sample type, and Sample.

Additional Functionalities

The modules' suite of Eusoft.Lab allows each laboratory to use only the features relevant to the activities they run. In this way, the laboratory can automate all the specific organizational workflows through the use of best practices and improve the performance of the laboratory. Eusoft.Lab includes the following modules:

INVOICING & ECONOMIC MANAGEMENT

SCHEDULER

ACQUIRE

EQUIPMENT MANAGEMENT

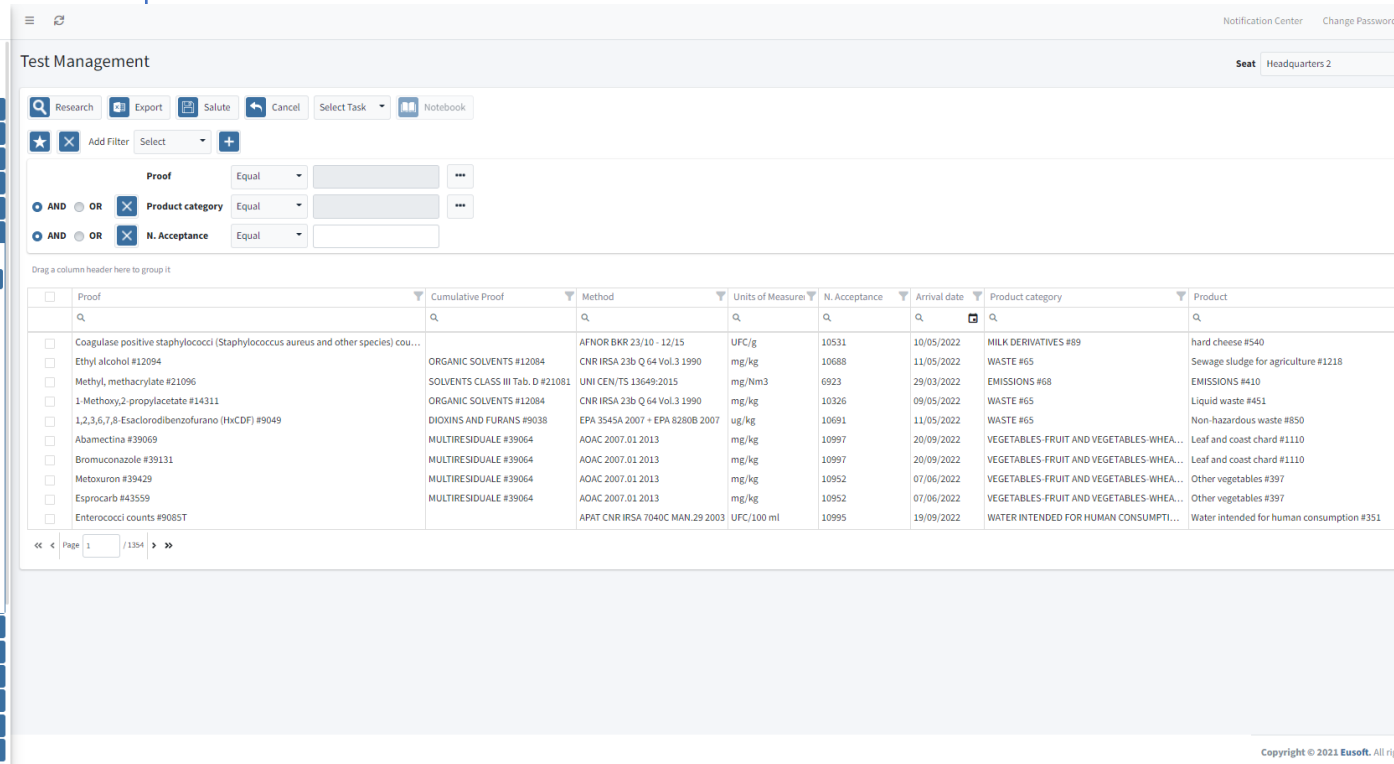
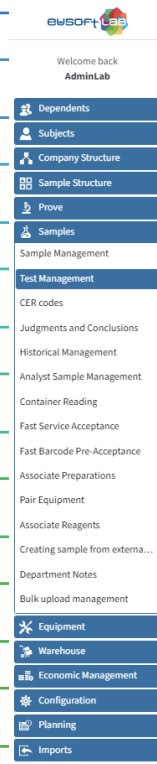
WAREHOUSE MANAGEMENT

DIGITAL SIGNATURE

EMAIL MANAGEMENT TOOL

QUALITY CONTROL PROGRAMM

BUSINESS INTELLIGENCE AND ANALYTICS



Business Intelligence

Business Intelligence has a strategic importance in all companies. It allows a business to apply IT technologies, methodologies and predictive analytics to extract information and knowledge aimed at improving the efficiency and timeliness of decision-making. Quality control and other testing laboratories exploit LIMS to perform advanced processing and analysis of data through the use of KPIs (**Key Performance Indicators**) and **dashboards**.

Eusoft's Business Intelligence module allows the laboratory to evaluate its performance using KPIs from data generated in Eusoft.Lab. Each laboratory can configure KPIs allowing effective use of the analytical data to support strategic decision making. It allows the generation of complex graphs for the representation of data that can then be shared with other business processes.

The module can be used by all the members of staff involved in various capacities, in the management of analytical data (Laboratory, Quality, analysts and lab technicians). Each user will use dashboards most suited to their needs, choosing from existing ones (e.g. Number accepted samples/analysed, average daily samples accepted), or creating new ones.





Logical Architecture



eusoft
more than a UMS

Due to the complexity of the lab environment and the number of technologies involved, LIMS implementation has always been a slow and costly process. Thanks to the Cloud Computing **SaaS** (Software as a Service) deployment model, **LIMS** implementation is fast becoming a more agile process.

Cloud adoption enables many benefit like the following:

- Low start-up costs, fast ROI
- Access to data any time and anywhere
- Pay-per-use logic
- Always the updated product version
- Scalability with high availability



The term "Cloud Computing" describes the usage of off-site computing, in which all the major components of computing – hardware, software, storage, networking, data, information and expertise – are abstracted as scalable services.

Software as a Service (SaaS) indicates a software application used as a service via the Internet.

EuSoft.Lab is a LIMS system that can handle all the steps of Acquisition – Processing – Archiving of all data generated by the laboratories and to automate all key processes, such as acceptance samples, insertion results, validation, generate test reports

The flexibility of **EuSoft.Lab** allows the laboratory to computerize the management of its activities according to custom specific workflows for each reality.

The screenshot displays the 'Samples search' interface in a web browser. The browser address bar shows the URL: <https://eusoftlabaphtml5.azurewebsites.net/samples/samples>. The interface includes a navigation menu on the left with options like 'Employees', 'Subjects', 'Office', 'Sample Structure', 'Tests', 'Samples', and 'Samples Management'. The main content area shows a search results table with the following data:

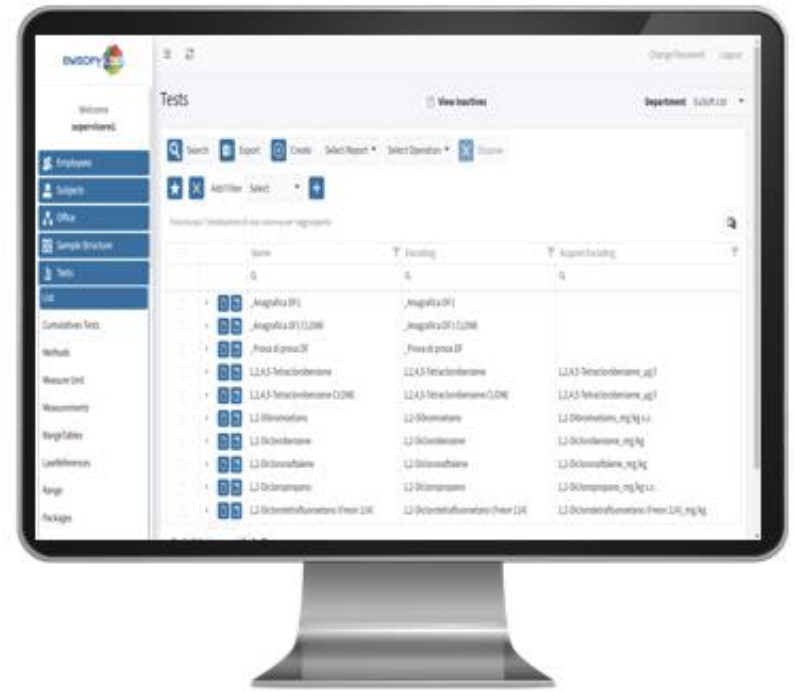
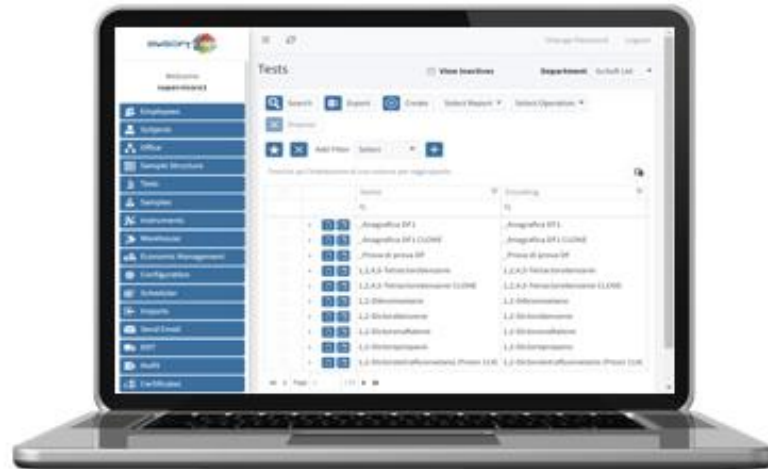
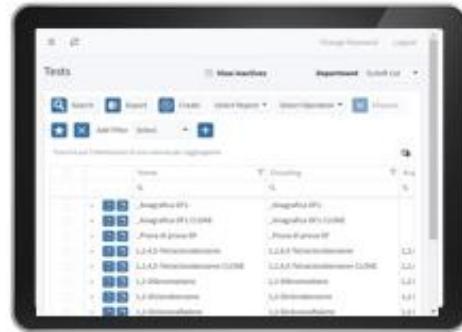
	N. Acceptance	N. Childs	Description	Arrival date	Subject
<input type="checkbox"/>	20211	0		07/01/2021 09:41:03	Arcona
<input type="checkbox"/>	20214	0		13/01/2021 09:12:36	Berling
<input type="checkbox"/>	20216	0		16/01/2021 14:32:11	Abano
<input type="checkbox"/>	20218	0		22/01/2021 09:18:31	Bienn
<input type="checkbox"/>	202116	0		28/01/2021 15:58:27	Abano
<input type="checkbox"/>	202117	0		29/01/2021 07:22:37	Abano
<input type="checkbox"/>	202118	3		29/01/2021 09:49:11	Arcona

Below the table, a detailed view of a sample is shown with the following data:

Service	N. Acceptance	Description	Arrival date	Subject	Sampling Point
	202118/1	desc4	08/01/2021 16:29:00	Arconate	
	202118/2	desc4	08/01/2021 16:29:00	Arconate	

- Graphical interface based on HTML5 technology and on latest technology and software's usability standards
- Accessible by any browser without any functional limit
- Rapid, contemporary and eye-catching pages display

Eusoft.Lab Responsiveness

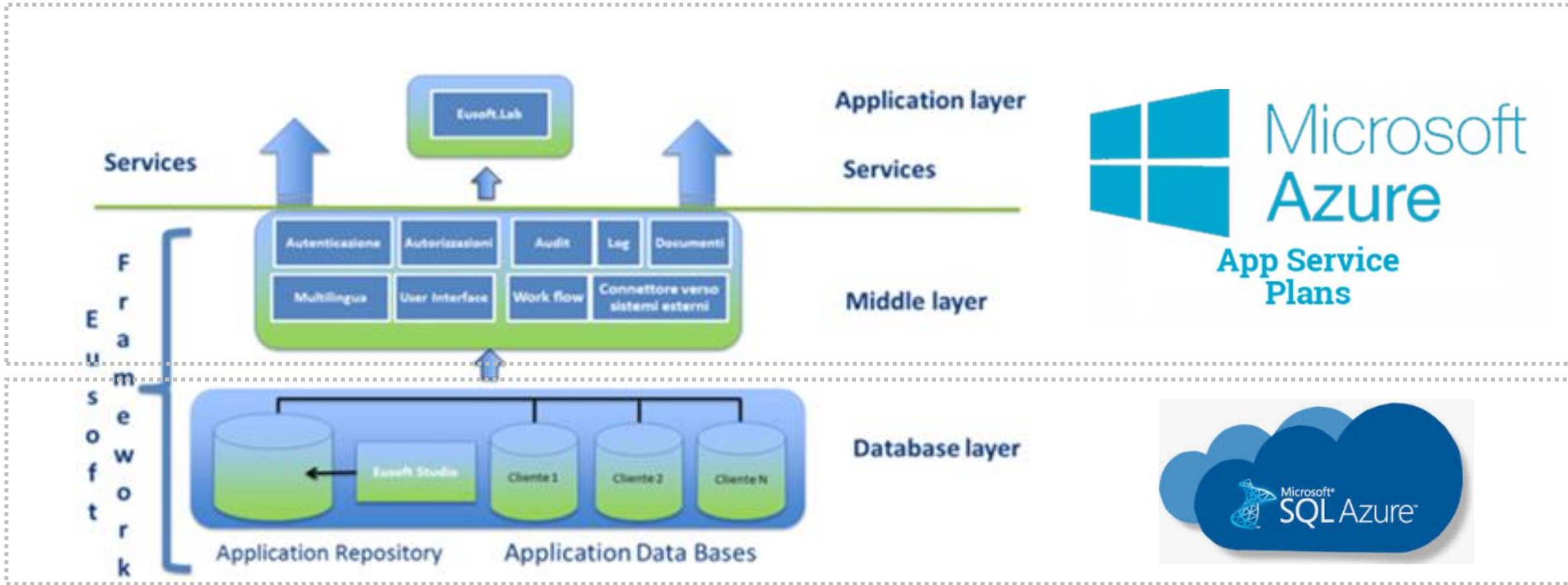


	Name	Feeling	Aspettando
Cumulative Test	- [2] [2] Anagrafa (P)	- Anagrafa (P)	
	- [2] [2] Anagrafa (P) (L206)	- Anagrafa (P) (L206)	
Method	- [2] [2] Prova di prova (P)	- Prova di prova (P)	
Resource Unit	- [2] [2] L2.A3-Testbedbenzene	- L2.A3-Testbedbenzene	- L2.A3-Testbedbenzene_ug1
Resource	- [2] [2] L2.A3-Testbedbenzene (L206)	- L2.A3-Testbedbenzene (L206)	- L2.A3-Testbedbenzene_ug1
Sampleable	- [2] [2] L2-00metano	- L2-00metano	- L2-00metano_ug1
Cardinality	- [2] [2] L2-00metano	- L2-00metano	- L2-00metano_ug1
Range	- [2] [2] L2-00metano	- L2-00metano	- L2-00metano_ug1
Package	- [2] [2] L2-00metano (P)	- L2-00metano (P)	- L2-00metano (P)_ug1

EuSoft.Lab Architectural Schema

EuSoft.Lab is a stateless type web application that lends itself well to being scaled horizontally, allowing the dynamic sizing of the app. Application layer is hosted on *Azure AppService*.

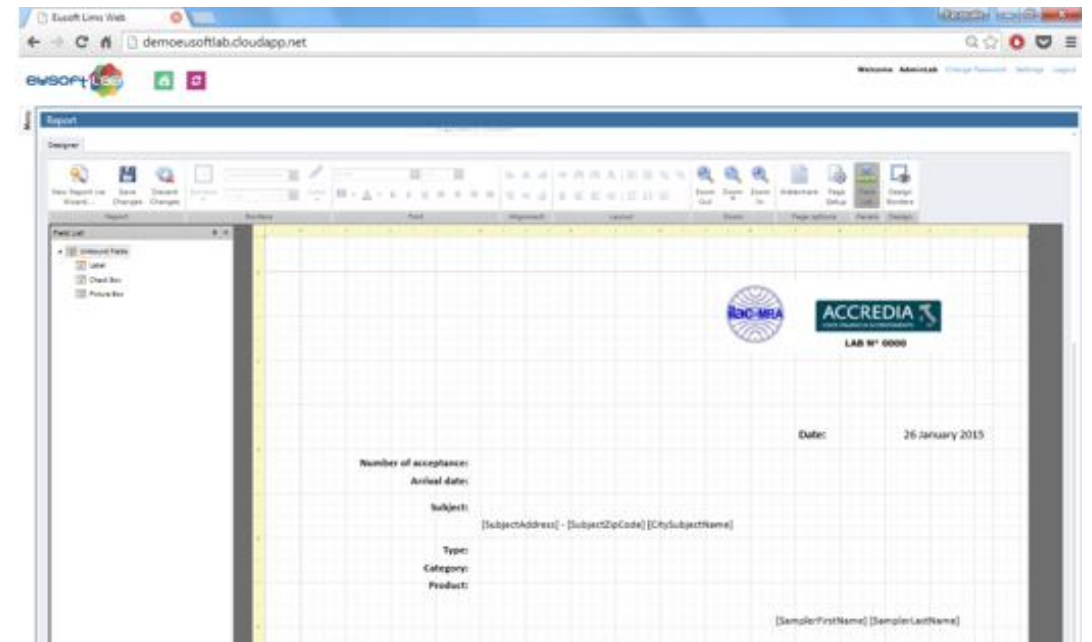
The **databases** are set up using two *Azure SQL* database services on Azure. The SQL database is a relational database service on the Microsoft cloud based on the Microsoft SQL Server engine and capable of handling workloads of strategic importance.



EuSoft.Lab has a highly user friendly UI you can customize at your convenience by through a visual design module, called EuSoft.Studio.

EuSoft.Lab allows the customization of the existing records as well as the construction of new records. This is possible through the features available in the system.

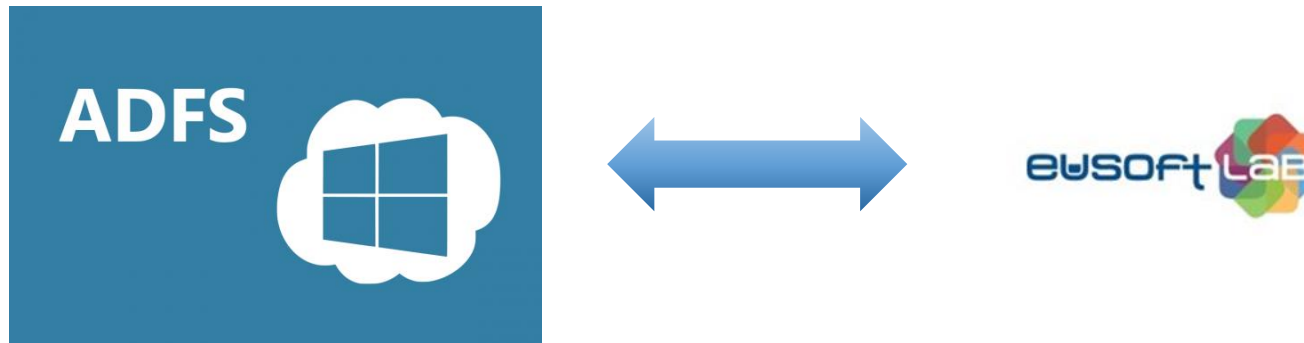
- **Customize RECORDS:** it allows the customization of existing registries and the creation of new registry usable in EuSoft.Lab.
- **Create NEW MODELS:** A model corresponds to a generic form defined for every registry. In practice, a model represents a virtual registry in which the fields are defined.



Eusoft.Lab ADFS integration

Active Directory Federation Services (ADFS) is an authentication and authorization service developed by Microsoft that provides a Single Sign-On (SSO) mechanism between the classic domain business environment and web applications.

Eusoft.Lab is natively integrated with ADFS allowing users of the company domain to carry out the entire authentication and authorization process using the same credentials even on the LIMS application.



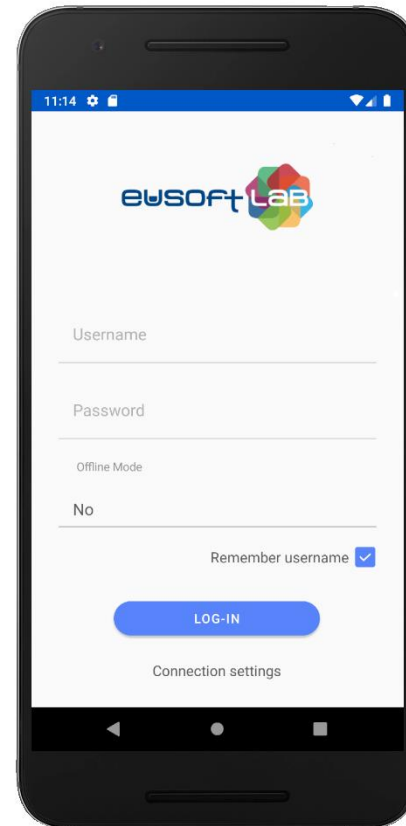
Eusoft.Lab PowerBI Integration

Eusoft.Lab embeds reports and dashboard published in the Power BI online service using Power BI API



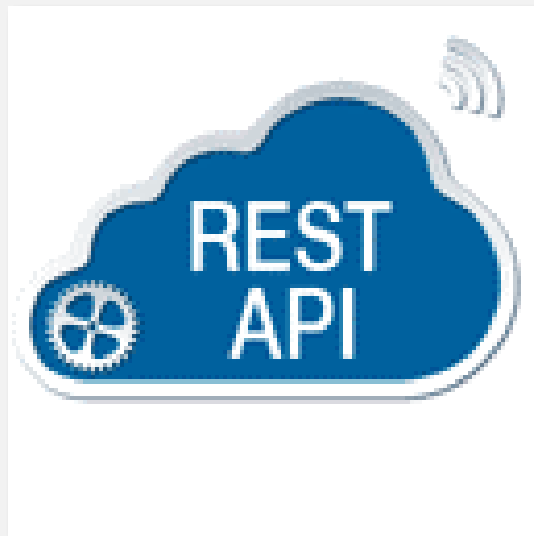
Eusoft.Lab Mobile App

EusoftApp is the mobile app for Android and IOS that can be used as a support to sampling activities and to insert test results directly in the field



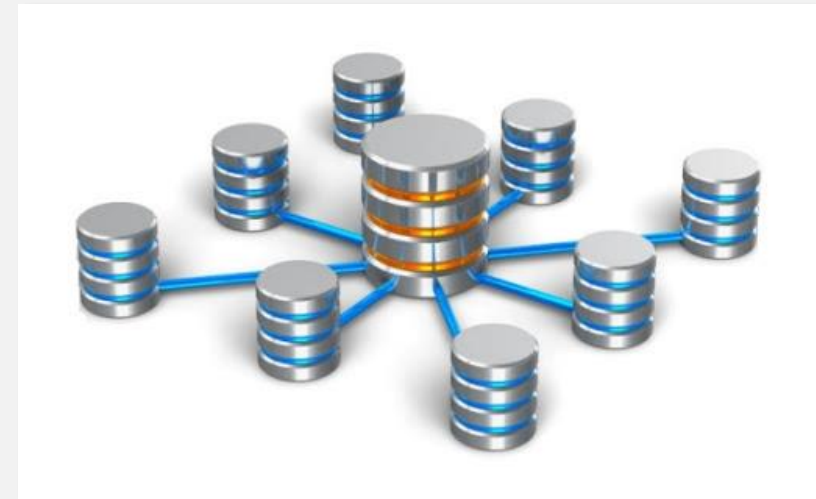
Web Services

Eusoft.Lab can interface with external system both as service requester or as service provider using the standard REST protocol



Database integration

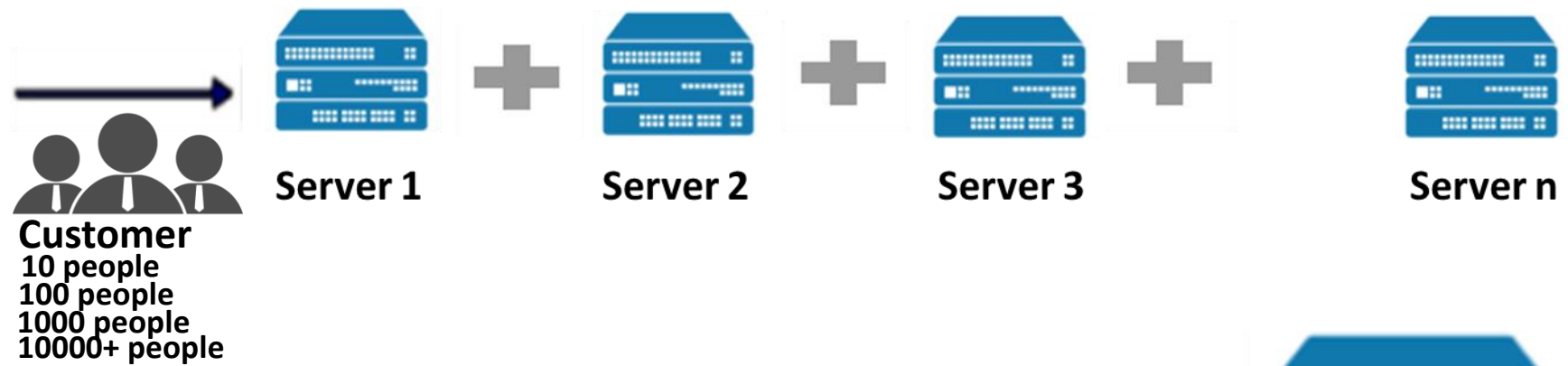
Eusoft.Lab can use this approach to combine heterogeneous data sources for legacy systems



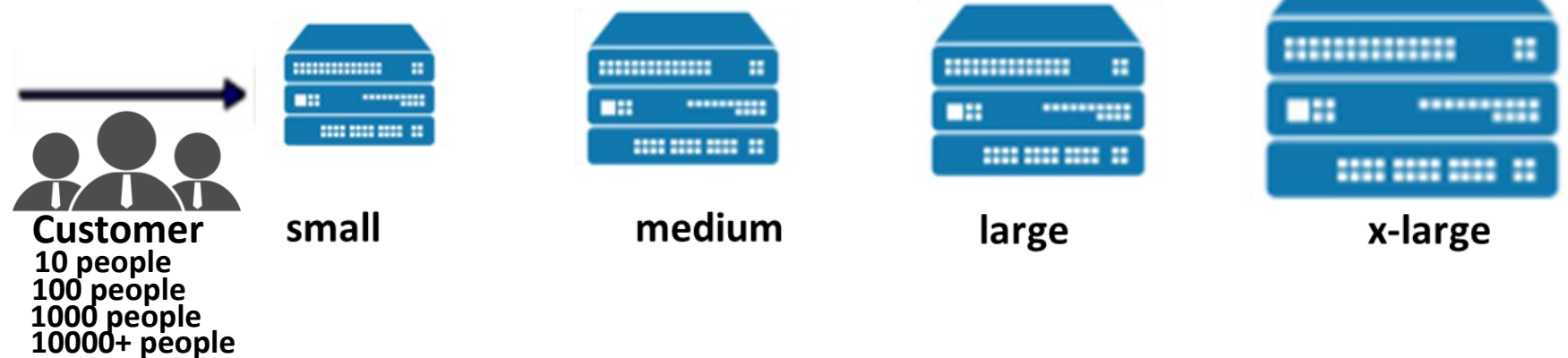
EuSoft.Lab Cloud scaling

- **EuSoft.Lab** is a stateless type web application that lends itself well to being scaled horizontally, allowing the dynamic sizing of the app, in particular as regards the horizontal scaling of the AppService that hosts the Web App. In this way, a greater number of nodes will be available depending on the load metric used.
- **EuSoft.Lab** infrastructure scalability handles the changing needs of the application by statically adding or removing resources to meet changing application demands as needed.

Horizontal scaling
(scale out / in)

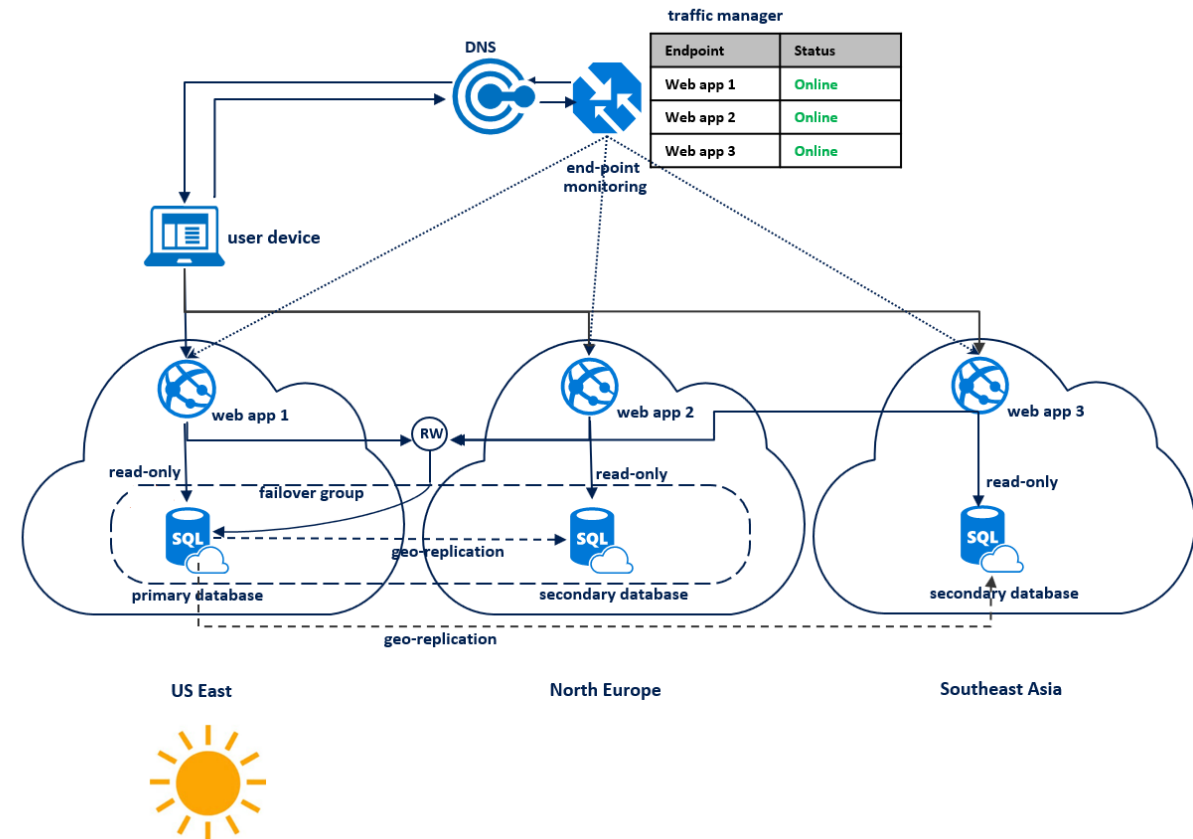


Vertical scaling
(scale up / scale down)



Eusoft.Lab: Cloud geo replication

- The end users access the application from different geographies. During the daytime OLTP operations are processed in the same geography for majority of the users and geo replicated to the other regions.
- The primary database is dynamically switched from one geography to the next at the end of the working hours. If an outage happens, the automatic database failover is initiated by the failover group, which effectively results in moving the application to the next region ahead of schedule.
- The remaining two regions serve the customers in all three geographies by switching roles.



Key benefits:

- The read-only application workload accesses data in the closest region at all times
- The read-write application workload accesses data in the closest region during the period of the highest activity in each geography
- Because the application is deployed to multiple regions, it can survive a loss of one of the regions without any significant downtime.

EuSoft.Lab Service Level

EuSoft.Lab relies on the following Azure Services



APP SERVICE

Component that provides application services

Microsoft guarantees that Apps running in a customer subscription will be available **99.95%** of the time.



SQL DATABASE

Used for the storage of application data

Microsoft guarantees at least **99.99%** of the time customers will have connectivity between their Microsoft Azure SQL Database and Microsoft's Internet gateway.



STORAGE

Used to store the documents managed by the application (SR, attachments, etc.)

Microsoft guarantees that at least **99.99%** of the time, it will successfully process requests to read data and that at least **99.99%** of the time, it will successfully process requests to write data.

EuSoft.Lab Backup

EuSoft.Lab relies on the following Azure policies



APP SERVICE

It is not necessary to have a backup strategy, since EuSoft always has a copy of the application installed on the Azure platform, that can be restored if needed.



SQL DATABASE

SQL Database automatically creates database backups and uses Azure read-access geo-redundant storage to provide geo-redundancy. These backups are created automatically and at no additional charge. You don't need to do anything to make them happen. SQL Database backup has a retention period of 35 days



STORAGE

The Blob service provides storage for entities, such as binary files and text files. You can create a snapshot of a blob. A snapshot is a read-only version of a blob that's taken at a point in time. Once a snapshot has been created, it can be read, copied, or deleted, but not modified.



www.eusoft.com



eusoft
more than a lms

www.eusoft.com

