



# **ELECTRONIC QUALITY MANAGEMENT SOFTWARE**

**SOLABS QM I.T. INFRASTRUCTURE REQUIREMENTS**

**Version No.: 01**

**Issue Date: May 3, 2012**

## Table of Contents

1	INTRODUCTION .....	3
2	SOLABS QM ARCHITECTURE .....	3
2.1.	A web based user interface.....	3
2.2.	SOLABS QM System Components .....	3
2.2.1.	SOLABS QM Server:.....	3
2.2.2.	Interfaces with other systems:.....	3
2.2.3.	Adlib Express Server:.....	3
2.2.4.	MS SharePoint.....	3
2.3.	Database .....	4
2.3.1.	Microsoft SQL Server: .....	4
3	SYSTEM ARCHITECTURE DIAGRAM .....	4
4	VIRTUAL MACHINES and Servers Deployment .....	5
5	Hardware and INFRASTRUCTURE SOFTWARE Requirements.....	6
6	SOFTWARE REQUIREMENTS .....	7

## 1 INTRODUCTION

The current document presents SOLABS QM system architecture. It also provides the Hardware and Infrastructure Software requirements for SOLABS QM to operate according to SOLABS quality standards and performance expectations.

## 2 SOLABS QM ARCHITECTURE

SOLABS QM's architecture consists of the following elements:

### 2.1. A web based user interface

The main program used to interact with SOLABS QM is a Web Browser (Microsoft Internet Explorer 6.0, service Pack 1 or Internet Explorer 7+.).

Other client's applications typically used are: *Adobe Acrobat Reader* (View Documents and Reports), *MS Outlook* (Read systems' notifications), *MS Excel* (View Reports), and other programs used to create, edit and open documents in editable format (e.g. *MS Word*).

### 2.2. SOLABS QM System Components

Composed by:

#### 2.2.1. SOLABS QM Server:

Contains most of the code and logic developed by SOLABS and processes users' requests. The code runs within a J2EE Compliant Application Server, namely JBoss. This server needs Java™ Software Development Kit (SDK) to be installed in order to run appropriately. Many instances of SOLABS QM can be installed. Generally a formal setup includes "Test", "Validation" and "Production" instances, all using MS SQL Server but storing data in independent databases.

#### 2.2.2. Interfaces with other systems:

Client-specific software interfaces communicating with SOLABS QM.

#### 2.2.3. Adlib Express Server:

This software program is used by SOLABS QM for the Publication and PDF Rendering of documents.

MS Office/Visio and other client programs may also be installed with Adlib to obtain a better PDF rendering of documents.

#### 2.2.4. MS SharePoint

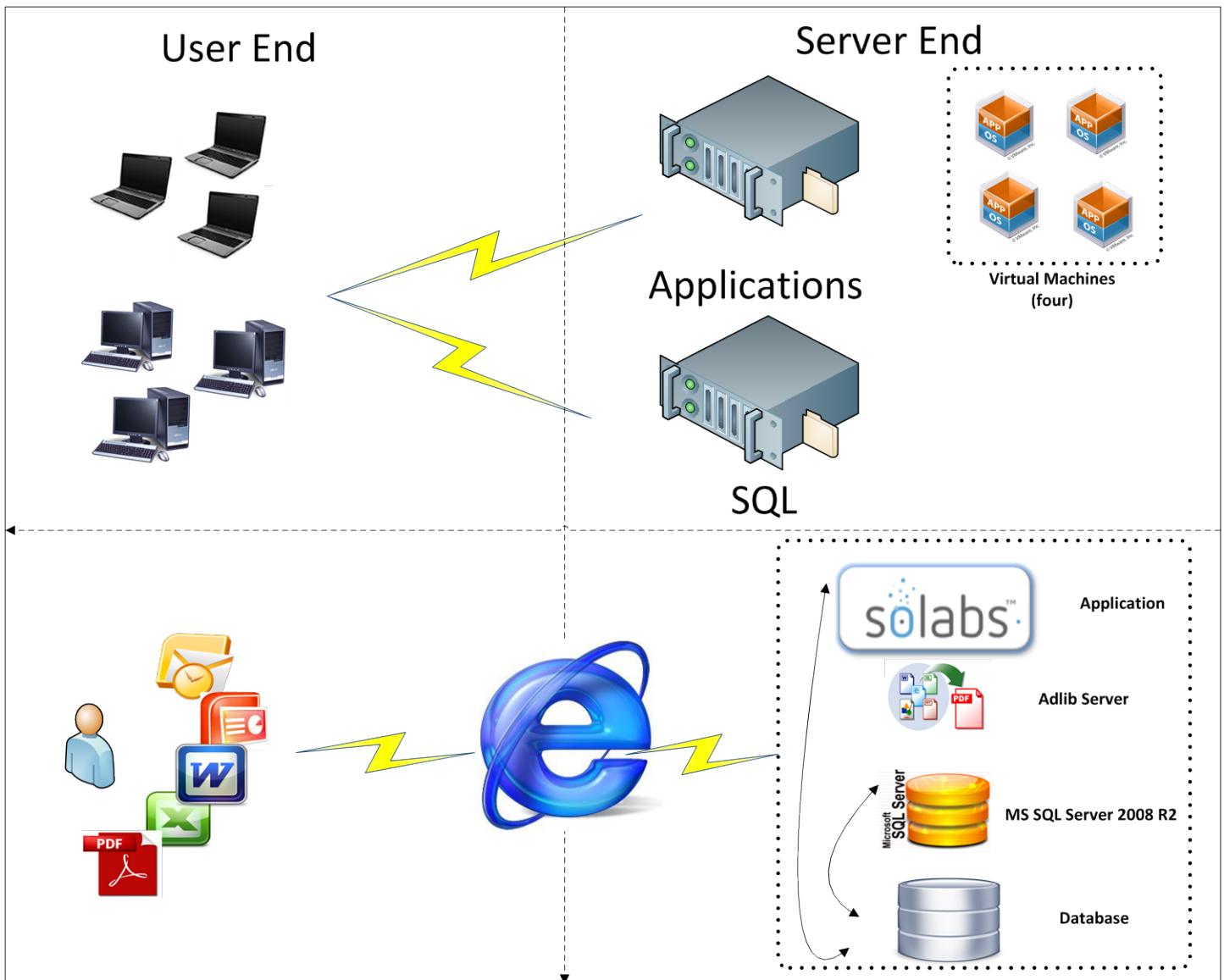
Web portal used to publish controlled documents and reports.

## 2.3. Database

### 2.3.1. Microsoft SQL Server:

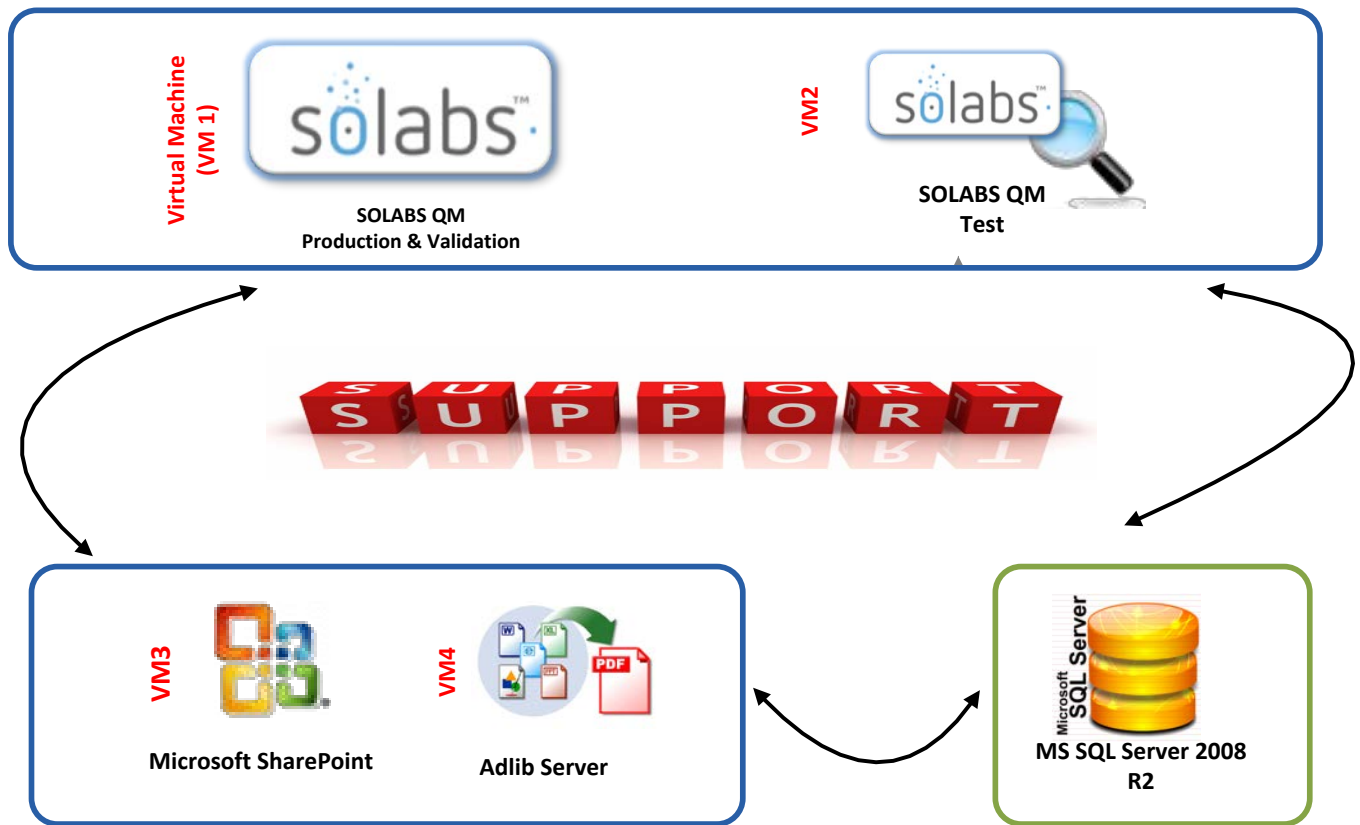
Database engine used to store/retrieve documents and data managed in SOLABS QM. Other database components (e.g. Microsoft SQL Server Reporting Services) can be used.

## 3 SYSTEM ARCHITECTURE DIAGRAM



The system architecture requires **four** (4) virtual machines and two physical servers according to the requirements described in the Hardware and Infrastructure Software Requirements section.

#### 4 VIRTUAL MACHINES AND SERVERS DEPLOYMENT



Virtual Machines 1, 2, 3 and 4 on one physical server and MS SQL Server 2008 R2 in a second physical server.

## 5 HARDWARE AND INFRASTRUCTURE SOFTWARE REQUIREMENTS

Application	Characteristic	Standard	Extended	Full
SOLABS QM Application. Validation and Production Environnements	CORE	4	4	4
	RAM (GB)	8	8	8
	HDD (GB)	80	90	90
	OS	Windows 2008 R2	Windows 2008 R2	Windows 2008 R2
	Virtualized	YES	YES	YES
SOLABS QM Application. Test Environment.	CORE	2	2	2
	RAM (GB)	4	4	4
	HDD (GB)	65	70	70
	OS	Windows 2008 R2	Windows 2008 R2 64Bit	Windows 2008 R2
	Virtualized	YES	YES	YES
Adlib Server	CORE	1	1	2
	RAM (GB)	2	2	2
	HDD (GB)	60	60	60
	OS	Windows 2008 R2	Windows 2008 R2	Windows 2008 R2
	Virtualized	YES	YES	YES
MS SQL Server 2008 R2 64 bit	CORE	8 (4 CPU max)	12 (4 CPU max)	16 (8 CPU max)
	RAM (GB)	18	24	32
	HDD (GB)	473	616	870
	OS	Windows 2008 R2	Windows 2008 R2	Windows 2008 R2
	Version	Standard	Standard	Enterprise
MS SharePoint	Virtualized	NO	NO	NO
	CORE	2	4	8
	RAM (GB)	8	8	16
	HDD (GB)	80	80	80
	OS	Windows 2008 R2	Windows 2008 R2	Windows 2008 R2
Version	Foundation	Standard	Standard	
Virtualized	YES	YES	YES	
Disk Storage System	Raid 10	10 disk	12 disk	16 disk +

## 6 SOFTWARE REQUIREMENTS

*Typically installed by clients:*

Windows 2008 R2.

MS Office Professional 2003+.

MS Vision Standard 2003+.

*Typically installed by SOLABS:*

PowerShell v2

Microsoft Windows PowerShell Extensions for SQL Server 2008 R2

MS SQL Server 2008.

Microsoft SQL Server 2008 Native Client

Microsoft SQL Server 2008 R2 Management Objects

Adlib Express Server.

JDK 6 Update 31 (Test & Validation / Production instances)

SOLABS QM (Test / Validation / Production instances).

MS SharePoint 2010.

Copyright© 2002-2012 SOLABS (Norsoft Technologies Inc.) All rights reserved.

777 De la commune (ouest)

Suite: 330

Montréal, Québec

H3C 1Y1 (CANADA)