QualiWare X
System Requirements

Version 10.9

qualıware

Contents

Change log

Revision	Date	Changes
2.16		Updated to QualiWare X – Release 10.9 - SQL Server 2017 no longer supported
2.15	29.11.2022	Updated to new design, content unchanged
2.14	07.11.2022	Updated to QualiWare X – Release 10.8 - Windows Server 2016 no longer supported
2.13	22.01.2022	From release 10.5.0 (build 1380) .NET requirement was increased to .NET 4.8 (Server and QLM)
2.12	02.12.2021	Updated to QualiWare X – Release 10.5 - IE was removed under comment 2 (in Browser client) as IE is not supported. - Precision regarding best performance experience and screen resolution was updated. - Azure AD / Office 365 login support added for mobile app. - SQL Server 2016 SP2 is no longer supported. - Sharepoint 2010 no longer supported.
2.11	25.11.2020	Updated to QualiWare X – Release 10.4.0 - General change in requirements definitions to be described as minimum requirements - Preface text updated - Support removed for Windows 8.x, Internet Explorer 11 and Sharepoint 2013 - Description changed in network requirements for QualiAPP - Database requirements changed to reflect only minimum requirements
2.10	01.07.2020	Updated to QualiWare X – Release 10.3.0 - Windows 7 support removed under Workstations/Clients - QualiAPP is only supported using TMG is now clearly stated - Windows Server 2012/2012 R2 no longer supported - SQL Server 2012 & 2014 is no longer supported - SQL Server 2016 SP2 support added - Sharepoint 2010 no longer supported
2.9	30.01.2020	Updated to QualiWare X – Release 10.2.0 - No changes
2.8	14.10.2019	Updated to QualiWare X – Release 10.1.0 - Note added regarding IE11 compliance - Network requirements for browser updated - QLM hardware RAM req. updated and clarification regarding QLM instances added - Definition of server CPU updated - SQL Server 2017 support added - Minor formatting changes

2.7	31.10.2018	Updated to QualiWare X – Release 10.0.2 - Windows Vista support removed - IE10 removed - Added note about browser performance - HW req. for QLM changed from 2 GB/4 GB to 4 GB/8 GB - Windows Server 2008 x64 & R2 support removed - Windows SQL Server 2008 & 2008 R2 support removed
2.6	09.06.2017	Updated to QualiWare 6.6 - Windows 10 - Windows Server 2016 - Browser changed (IE 9 removed, compatibility mode not supported)
2.5	11.10.2016	Updated to QualiWare 6.5 – no changes to requirements Note added: SQL Server cluster configurations are supported
2.4	30.06.2016	Updated to QualiWare 6.4 - Mobile App added - Browsers changed (IE 8 removed; Edge, Firefox, Chrome, Safari added) - .NET requirement increases to 4.6.1 (Server and QLM) - Changed layout and order of the document - SQL Server Express no longer supported - SQL Server 2005 no longer supported - SharePoint section added
2.3	03.11.2015	Updated to QualiWare 6.3
2.2	07.05.2015	Updated to QualiWare 6.2
2.1	16.10.2014	Windows Server 2012 R2 and SQL Server 2014 added
2.0	27.01.2014	Updated to version 6.0. - Windows server x86 (32-bit) support removed - SQL server 2005 support removed if using SBW - Windows 8 change to 8.x to include 8.1 - IE 11 added (only compatibility mode supported) - Recommended QLM hardware increased to I3 CPU
1.5	23.05.2013	Release QLM 5.5.11/QIS 1.2.4 Added: Windows 8 and Windows Server 2012, SQL Server 2012. Change: Firefox might require customizations.
1.4	21.12.2011	Release 1.2.3
1.3	23.04.2011	Release 1.2
1.2	14.04.2011	Updated with QLM and QEI
1.1	04.01.2011	Updated
1.0	02.09.2010	First release

Figure list

No table of figures entries found.

1 About This Document

This document describes the requirements for running QualiWare as an on-premises solution. Requirements are considered minimum requirements and all newer versions of either hardware or software are expected to be supported following Microsoft's announced Mainstream end dates. In addition, Microsoft Azure platform is supported.

QualiWare is dedicated to support all future SQL Server and operating system releases/updates from Microsoft. QualiWare can be expected to address this in patches or future releases.

2 Workstations/Clients

There are three clients: browser, QLM application and Mobile App.

2.1 Browser client

2.1.1 Software/OS minimum requirements

Operating system[1]	Additional requirements
Windows 10	Edge[2] (Chromium version), Firefox, Chrome
Mac	Safari

[1] x86 and x64 as well.
[2] Due to restrictions automatic login (SSO) requires SPN setup.

For best performance experience Edge and Chrome is recommended.

For best user experience the latest browser version and a screen resolution of min. 1366x768 is recommended.

2.1.2 Hardware

Please refer to your vendor's specification.

2.1.3 Network

Access through port 80 or 443 depending on configuration.

Single Sign On (SSO) feature works only if both QualiWare server and a client computer are in the same domain and the QualiWare server is in the Intranet security zone.

2.2 QLM application client

2.2.1 Software/OS minimum requirements

Operating system[1]	Additional requirements
Windows 10	.Net 4.8

[1] x86 and x64 as well.

2.2.2 Hardware minimum requirements

CPU	**I3 or equivalent**
RAM	OS req. + 0,5 GB
HDD	1 GB local drive or a network drive

[1] If operating system has higher requirements follow those requirements. Requirements are based on the assumption that only one instance of QualiWare Lifecycle Manager is running.

2.2.3 Network requirements

LAN connection between QLM and server is recommended.

Access to server through TCP port 80/443 and 25780-25789 (the port range can be moved).

2.3 Mobile App

2.3.1 OS requirements

Operating system	Additional requirements
iOS (iPhone, iPad)	OS Versions supported by Apple
Android	OS Versions supported by Android

2.3.2 Network requirements

The mobile app communicates with the QualiWare Server through a web service. There are 2 authentication methods supported:

- Azure AD / Office 365 login (requires version 10.5 or higher of the mobile app)
- Username/password

When mobile app connects over a public internet connection only Azure AD / Office 365 login should be used due to security. This setup will also require a reverse proxy in front of the QualiWare server – this reverse proxy must pre-authenticate against the same Azure AD as the QualiWare installation. If the QualiWare server is connected to a network with wifi access the reverse proxy can be omitted if security allows.

In a local, closed and protected network connecting over wifi, the username / password option can be used. As this way of connecting is not considered secure this should only be used in trusted networks.

3 QualiWare Server

The QualiWare server runs all the QualiWare Server modules, and the IIS used for publishing the contents.

3.1 Software/OS minimum requirements

Operating system	Additional requirements
Windows Server 2019	IIS, .Net 4.8 (or newer), ASP.Net 4.8 (or newer)

3.2 Hardware minimum requirements

No. of users[1]	Server CPU[2] (or higher)	RAM[3] (or higher)	HDD[4] (or higher)
<**50 users**	4 cores in VM environment	8Gb	5 GB of free space
50-100 users	4 cores in VM environment	16Gb	RAID 5 or 10 high performance disks 5 GB of free space
>**100 users**	8 cores in VM environment	16Gb	RAID 5 or 10 high performance disks 5 GB of free space

[1] This does not refer to the total number of users who have access to the system but only concurrent and simultaneous users on the system. E.g., a 500-user installation will typically only have 5 to 10% users online at the same time - meaning 25 to 50 concurrent users. Typical user activity is creating/modifying/opening objects and diagrams, selecting objects by certain criteria etc. In addition, the number of simultaneous users is separate for QEP, QIS Clients and QLM. I.e., five QIS Client users and five QLM users comes to a total of 10 QEF sessions.

[2] It is recommended to have one CPU kernel per QCL engine instance plus two cores for the system

[3] The amount of RAM is specified for comfortable work of QEF, QIS, QIS Clients, RA and one repository (1 QCL engine instance). Each additional QCL engine instance requires additional 256-512Mb of RAM.

[4] This space is needed for initial installation (QEF, QIS, QIS Clients, RA and one typical repository (QCL engine instance). Modules update and/or static pages generation may require more free space on the same disk. Depending on the size of the repository requirements may increase.

4 Database server

The database server must run on a dedicated Windows server. QualiWare can co-exist with other applications on the same database server as long as there are adequate free resources.

If the system is only for test use, then the database can be installed on the QualiWare server. If done, it is important to limit the amount of memory, which the database may allocate.

4.1 Database minimum requirements

Database	Supported editions
Windows SQL Server 2019	Supported editions are: Standard, Business Intelligence and Enterprise.

Required protocols are:

TCP/IP.

4.2 Hardware

Please refer to Microsoft's specification.

Required disk space for repositories depends on data volume mentioned to be stored in them as well as requirements for access log and SBW. Typical size varies from 1 GB to 20 GB.

4.2.1 Network requirements

Sufficient bandwidth should be available between the QEF/QIS and the database server to prevent degradation of performance. This is normally not an issue if the QEF/QIS is on the same LAN as the database server. Degradation of performance can occur if the network is segregated or if bandwidth limitations are imposed.

4.3 SQL Server High-Availability Solutions

SQL Server Cluster solutions are supported as long as the interface from the database client is the same as when running standard Single server configuration. This includes both Always On and Failover Cluster configurations.

5 SharePoint

The QualiWare SharePoint Connector allows for uploading/browsing and controlling documents directly on a SharePoint server. It is also possible to control document metadata from QualiWare or read document metadata into QualiWare objects.

5.1 Minimum required versions

Version	Notes
SharePoint 2019 on premise	Requires Kerberos for SSO (Single Sign-On)
SharePoint Online	Both as Stand-alone and as a part of Office 365