

QualiWare Pre-Installation Documentation

Version 2017-08-21

Customer: <Customer>



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1. Preface

This document describes the pre-requisites in order to start an installation of QualiWare. The customer should mark the checkboxes as described and fill out all the empty fields.

2. Contacts

QualiWare’s technical contact (please contact this person in case of questions):

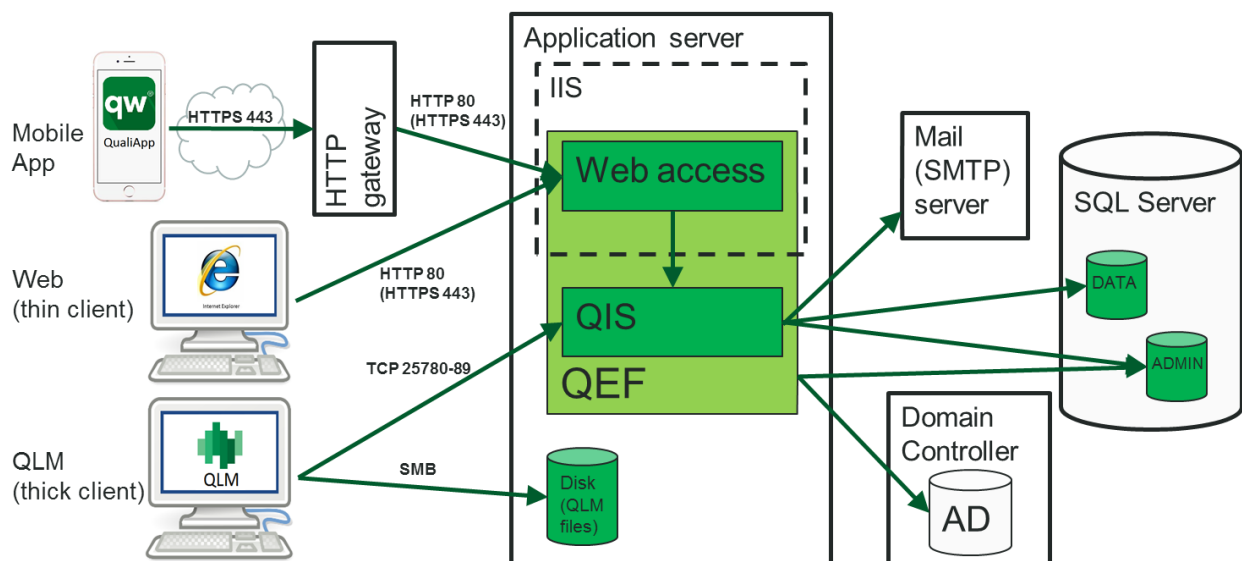
| Name | E-mail |
|-----------|------------|
| <SA Name> | <SA Email> |

Customer’s technical contact list

| Area | Name | E-mail |
|---------------|------|--------|
| e.g. AD | | |
| e.g. Database | | |
| | | |
| | | |
| | | |
| | | |

(insert more rows as necessary)

3. System overview



All the components must be prepared before starting the installation of QualiWare.

4. Application Server

The QualiWare software is installed on the application server. The server must be prepared with Windows and components required by QualiWare.

4.1. Server name and IP

Server FDQN: [Click or tap here to enter text.](#)

Server IP address: [Click or tap here to enter text.](#)

4.2. Operating System

Please check one of the boxes below:

- Windows server 2008 x64
- Windows server 2008 R2
- Windows server 2012
- Windows server 2012 R2 (recommended)
- Windows server 2016

4.3. Hardware

Depending on the number of users as well as how the use the system the server requirements increaser, however QualiWare recommends using a virtual server with the following specifications. If users or usage shows additional requirements the resources for the server can be increased later on.

Please verify that the virtual server is configured with at least:

- 4 CPU cores
- 8 GB RAM
- 50 GB free disk space on (drive letter): [Click or tap here to enter text.](#)

4.4. .NET

Please verify that the following version is installed:

- .NET 4.6.1

4.5. Microsoft Visual C++ Redistributable Package

- Microsoft Visual C++ 2010 Redistributable Package (x86) has been installed (<https://www.microsoft.com/en-us/download/details.aspx?id=5555>)
- Microsoft Visual C++ 2010 Redistributable Package (x64) has been installed (<https://www.microsoft.com/en-us/download/details.aspx?id=14632>)
- Microsoft Visual C++ 2013 Redistributable Package (x64 AND x84) have been installed (<https://www.microsoft.com/en-us/download/details.aspx?id=40784>)
- Microsoft Visual C++ 2015 Redistributable Package (x64 AND x84) have been installed (<https://www.microsoft.com/en-us/download/details.aspx?id=53587>)

4.6. Windows roles and features

Please verify that all of the following roles are installed on the server:

- Web Server (IIS)
- File and Storage services | File and iSCSI Services | File Server

Please verify that all of the following features are installed on the server:

- Web Server (IIS) | Web Server | Common HTTP Features | Default Document
- Web Server (IIS) | Web Server | Common HTTP Features | Static Content
- Web Server (IIS) | Web Server | Security | Windows Authentication
- Web Server (IIS) | Management Tools | IIS Management Console

For Windows Server 2012 and 2012 R2:

- Web Server (IIS) | Web Server | Application Development | ASP.NET 4.5
- .NET Framework 4.5 Features | WCF Services | HTTP Activation

For Windows Server 2008 and 2008 R2:

- The following command has been executed successfully (registers ASP.NET with IIS)
C:\Windows\Microsoft.NET\Framework64\v4.0.30319\aspnet_regiis.exe -i

4.7. Service account for QualiWare

The QualiWare software runs as a service on the Application server.

Service Account type (select one of the following):

- Local System
- Local user
 - Login: Click or tap here to enter text.
 - Password: Click or tap here to enter text.
- AD user (recommended)
 - Login: Click or tap here to enter text.
 - Password: Click or tap here to enter text.
- MSA
 - Login: Click or tap here to enter text.

4.8. Service Principal Names

- The Service Account must have Service Principal Names (SPN) set on the server.

(The following code lines are examples of how to configure the SPNs:

```
" setspn -S http/<application server> <domain_name>\<service_account> "
```

```
" setspn -S http/<application server> <domain_name>\< service_account> "
```

It is important that SPNs are set for the full server name and the shorthand version.)

5. Firewall openings

There are two ways to access the QualiWare application, one is through the IIS and the other is directly to the QualiWare integration server. Web access is used by the web client and the mobile app, whereas QLM connects directly to the Integration Server.

Please select which ports to use, and verify that these are open.

5.1. Web access ports

Check one of the boxes below

- Use HTTP on port 80 (recommended)
- Use HTTPS on port 443

Name of certificate installed in IIS: [Click or tap here to enter text.](#)

5.2. QualiWare integration server ports

Check one of the boxes below

- Use default TCP port range 25780-25789 (recommended)
- Use custom port range (range must be 10 ports): [Click or tap here to enter text.](#)

5.3. File share access

To manually publish content and to download the Thick client software standard Windows file shares are used.

Please verify that the following ports are open for the SMB (File Share) protocol.

Check all boxes below

- TCP ports: 139, 445
- UDP ports: 137, 138

(see [https://technet.microsoft.com/en-us/library/cc731402\(v=ws.11\).aspx](https://technet.microsoft.com/en-us/library/cc731402(v=ws.11).aspx) for more info)

6. Active Directory

All users of the system are read from the AD into the QualiWare system. The users access rights to the different repositories and licenses are then set in the QualiWare system.

6.1. Users to Import

- Read the full AD into QualiWare
- Read a subset of the AD into QualiWare (recommended)

Specify LDAP paths in the table below:

| Domain or Server | Path (distinguishedName of the OU) |
|------------------|------------------------------------|
| e.g. domain.com | e.g. ou=users,dc=domain,dc=com |
| | |
| | |
| | |
| | |
| | |
| | |

(insert more rows as necessary)

6.2. AD access credentials

Credentials for accessing the AD (check one of the boxes below):

- The service account specified in section 4.7 has access to the AD (recommended)
- Use the account specified below

Login: [Click or tap here to enter text.](#)

Password: [Click or tap here to enter text.](#)

6.3. AD test-group

Create a group for installation and user-synchronization purposes.

AD-group LDAP path: [Click or tap here to enter text.](#)

- The service account is added to AD-group

7. Database server

7.1. Server name

Database server name or IP: [Click or tap here to enter text.](#)

Instance name (if required): [Click or tap here to enter text.](#)

TCP port (if not 1433): [Click or tap here to enter text.](#)

7.2. SQL server version

Please check one of the version boxes and one of the edition boxes below:

- Microsoft SQL Server 2008

- Standard

- Enterprise

- Microsoft SQL Server 2008 R2

- Standard

- Enterprise

- Datacenter
- Microsoft SQL Server 2012
 - Standard
 - Business Intelligence
 - Enterprise
- Microsoft SQL Server 2014
 - Standard
 - Business Intelligence
 - Enterprise
- Microsoft SQL Server 2016
 - Standard
 - Enterprise

7.3. 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. Both SQL server Always On and Failover Cluster configurations are therefore supported.

7.4. Databases

QualiWare recommends separating the database containing the data used by the administrative modules (QEF and RA) and the database containing repository data. However, it is possible to put these in to the same database, if this should be required.

- Use two databases (recommended)

| Database name | Recommended name | Initial size | Yearly growth (est.) |
|----------------------------------|------------------|--------------|----------------------|
| Click or tap here to enter text. | QUALIWARE_ADMIN | 10 GB | 5 GB |
| Click or tap here to enter text. | QUALIWARE_DATA | 20 GB | 10 GB |

- Use one database

| Database name | Recommended name | Initial size | Yearly growth (est.) |
|----------------------------------|------------------|--------------|----------------------|
| Click or tap here to enter text. | QUALIWARE | 30 GB | 15 GB |

7.5. Database credentials

For accessing the database QualiWare supports both AD users and SQL Server logins. Please check one of the boxes below and if required provide credentials.

- The service account specified in section 4.7 has access (recommended)

- Use the AD account specified below

Login: Click or tap here to enter text.

Password: Click or tap here to enter text.

- Use the SQL Server login specified below

Login: Click or tap here to enter text.

Password: Click or tap here to enter text.

7.6. Database role

The QualiWare login needs the following access to the database(s):

- db_owner

7.7. Database Collation

The sorting order of objects in QualiWare depends on the database collation.

- Correct SQL server database correlation selected

Correlation: [Click or tap here to enter text.](#)

7.8. QualiWare Social Behaviour Warehouse

- Support for Social Behaviour Warehouse (filled in by QualiWare)

If the above is checked please fill out this section

- SQL Server Analysis Service installed

7.8.1. SQL Analysis Server credentials

- The service account specified in section 4.7 has access (recommended)
- Use the AD account specified below

Login: [Click or tap here to enter text.](#)

Password: [Click or tap here to enter text.](#)

8. Mail server

In order to send notification mails to the user access to an SMTP server is needed.

8.1. SMTP Server address & port

Please note that TLS/SSL is not supported

SMTP server FQDN: [Click or tap here to enter text.](#)

TCP port (if not 25): [Click or tap here to enter text.](#)

8.2. SMTP server credentials

Credentials for sending mails (check one of the boxes below):

- SMTP server does not require credentials (anonymous access)
- Use the service account specified in section 4.7
- Use the account specified below

 Login: [Click or tap here to enter text.](#)

 Password: [Click or tap here to enter text.](#)

8.3. From address

Specify "From address" to use (e.g. noreply@company.com or managementsystem@company.com)

Mail address: [Click or tap here to enter text.](#)

9. Workstations/Clients

There are three clients: browser, QLM application and Mobile App. Please check that the following requirements are fulfilled:

9.1. Browser client

Verified that all clients use one of the browsers listed below

9.1.1. Software/OS requirements

| Operating system | Additional requirements |
|------------------|--|
| Windows Vista* | Internet Explorer 9**,10, Firefox, Chrome |
| Windows 7* | Internet Explorer 9**,10,11, Firefox, Chrome |
| Windows 8.x* | Internet Explorer 10,11, Firefox, Chrome |
| Windows 10* | Internet Explorer 11, Edge***, Firefox, Chrome |
| Mac | Safari |

* Both 32-bit and 64-bit versions of Windows are supported.

** IE9 is supported, however not all functionality will be available.

*** Due to limitations in Edge automatic login (SSO) is not supported.

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.

Additionally the server must be added to the client's "Local Intranet" zone in the browser.

9.2. QLM application client

Verified that all clients fulfill the requirements below

9.2.1. Software/OS requirements

| Operating system | Additional requirements |
|------------------|-------------------------|
| Windows 7* | .Net 4.6.1 |
| Windows 8.x* | .Net 4.6.1 |
| Windows 10* | .Net 4.6.1 |

* Both 32-bit and 64-bit versions of Windows are supported.

9.2.2. Hardware

| | Minimum* | Recommended* |
|-----|------------------|------------------|
| CPU | I3 or equivalent | I5 or equivalent |
| RAM | 2 GB | 4 GB |

* If operating system has higher requirements follow those requirements. Requirements are based on the assumption that only QualiWare Lifecycle Manager is running.

9.2.3. Network and Terminal server

For QLM clients which are not on the same network as the application server, a terminal server (Remote Desktop Services, RemoteApp, Citrix or similar) is required. The terminal server may be shared with other applications.

The Desktop Experience feature (Windows 7 theme) needs to be installed on the terminal server in order for QLM to work properly.

QLM clients are on the same network as server

- Use terminal server to run QLM
 - Desktop Experience (Windows 7 theme) installed and enabled

9.3. Mobile App

- Support for mobile phone (filled in by QualiWare)

If the above is checked please fill out this section.

9.3.1. OS requirements

- Verified that all clients fulfilled the requirements below and that access is available

| Operating system | Additional requirements |
|--------------------|-------------------------|
| iOS (iPhone, iPad) | 8.1 or later |
| Android | 4.0.3 or later |

9.3.2. Network requirements

The mobile app communicates with the QualiWare Server through a web service. This web must be accessible from the network that the mobile device is connected to. If access through the public internet is required a connection into the QualiWare server must be possible. The mobile App supports authentication challenges, so gateways requiring login are supported (when using HTTP response code 401). Although the QualiWare server verifies login and password from the mobile app, it is recommended to use a gateway with authentication functionality.

If the mobile app has access from external networks through a gateway it might be necessary to use a different FQDN and port to access the system. The mobile app only supports one address for a specific QualiWare server so the address must be the same for access from internal and external networks.

Check one of the appropriate boxes below:

- Use same internal address and port as thin/web clients
- Use this address and port for access from mobile app

FQDN: Click or tap here to enter text.

TCP port: Click or tap here to enter text.