System Specifications and Prerequisites

Quest DATA INTELLIGENCE (DI)

Version 16.0

This document provides the system specifications and prerequisites required to install the 16.0 version of the Quest Data Intelligence application.

If you have any questions regarding your potential use of this material, contact:

Quest Software Inc.

Attn: LEGAL Dept

4 Polaris Way Aliso Viejo, CA 92656

Refer to our Web site (https://www.quest.com) for regional and international office information.

Patents

Quest Software is proud of our advanced technology. Patents and pending patents may apply to this product. For the most current information about applicable patents for this product, please visit our website at https://www.quest.com/legal.

Trademarks

Contents

About this Guide 4
Software Solution Architecture 4
Key Components 4
Web Application Architecture 4
Tiers 5
Technology Stack and Components 5
System Specifications and Software Requirements 6
For Production Deployments 6
For Proof of Concept/Development Server 7
Pre-requisites to install Quest Data Intelligence 8
Memory Allocation to Web Server 8
End-user Machine/Laptop Specifications 8

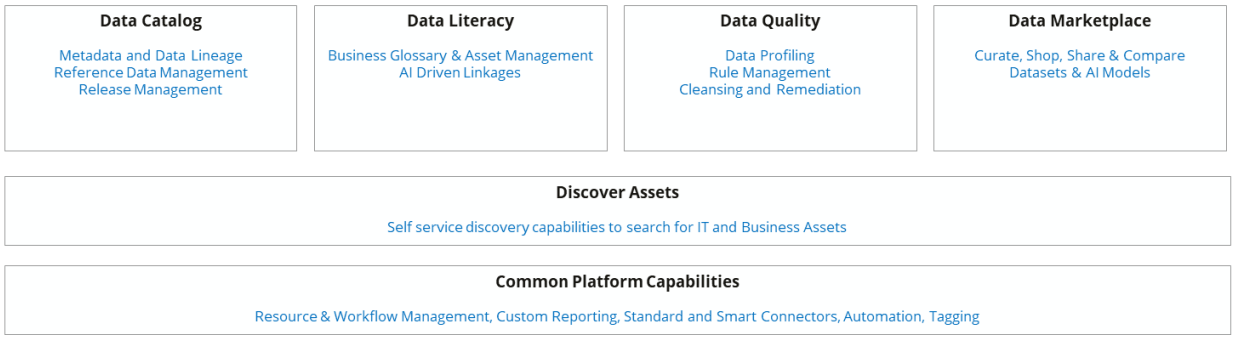
About this Guide

This document provides the system specifications and prerequisites required to install the 16.0 version of the Quest Data Intelligence application.

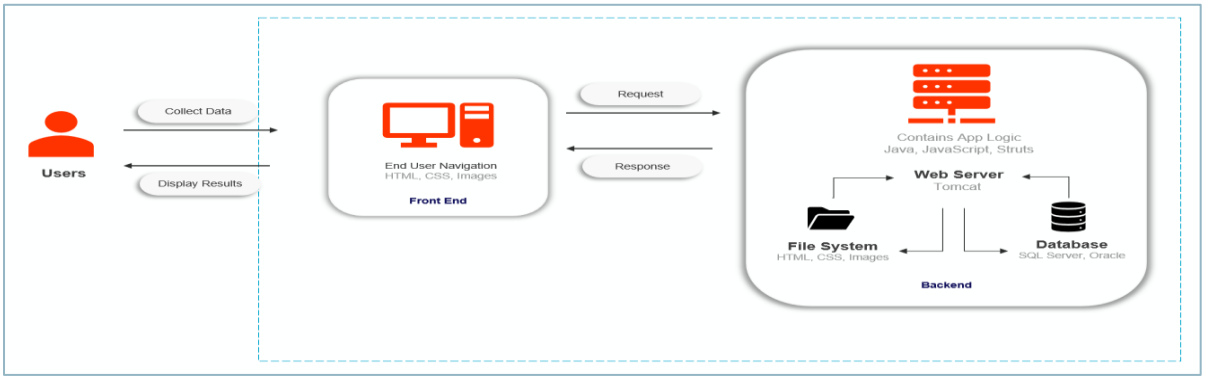
Software Solution Architecture

Key Components

The following diagram shows a high-level modular architecture of the application.



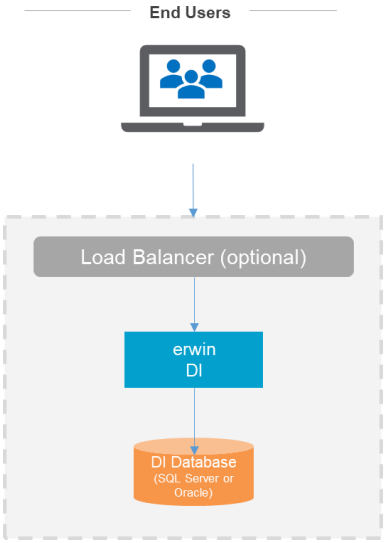
Web Application Architecture



Tiers

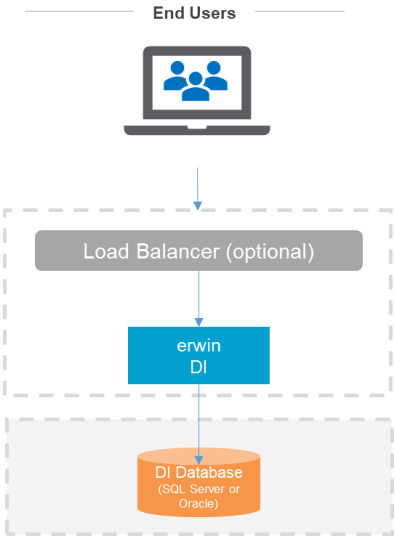
The Quest Data Intelligence application supports both single server (application and database on the same server) and distributed (application and database on the different servers and/or multiple app instances under a load balanced set up) architectures.

Single Server Setup



- Only Recommended for POC or Demo environments

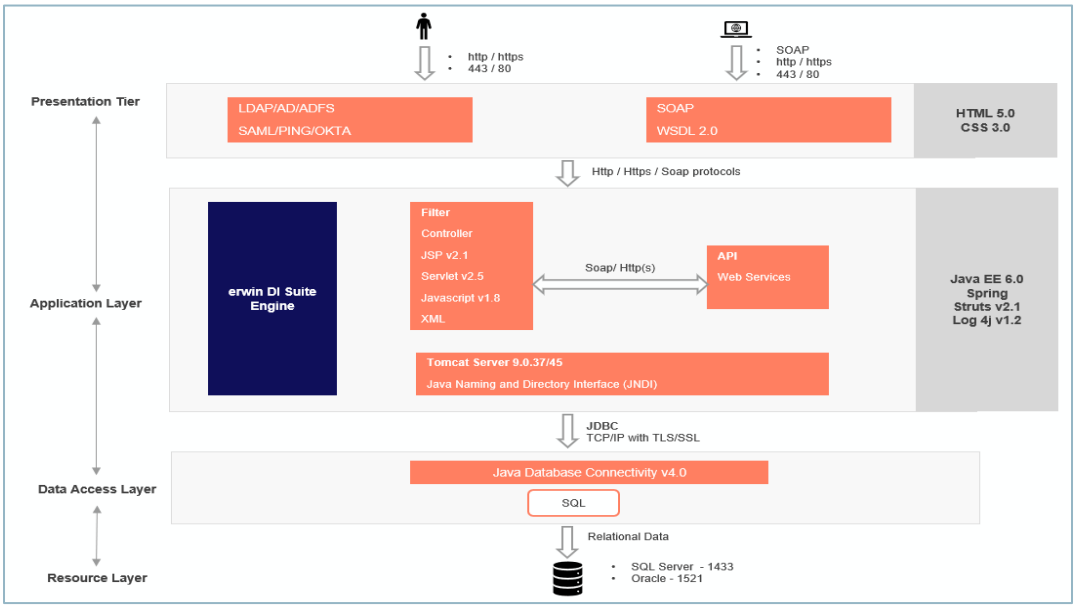
Distributed Server Setup



- Highly Recommended for Production Deployments

Technology Stack and Components

The Quest Data Intelligence application follows multi-tier architecture consisting of Presentation, Application, Data Access, and Resource layers. The following is a high-level diagram depicting these layers.



System Specifications and Software Requirements

Important Note: The following specifications are for the Quest Data Intelligence application only and do not include the erwin Data Quality module (DQLabs). We recommend the Quest Data Quality (DQLabs) be installed on a separate server.

For Production Deployments

Application Tier – Minimum Compute & Software Requirements	
Node Options	Single / Multi
Operating System	Windows Server / Linux Server
Processor	64 Bit
CPU Cores / vCPUs / RAM [1]	4 Cores / 8 vCPUs / 64 GiB RAM recommended (32 GiB RAM Minimum)
Local Storage	100 -200 GB
Java JDK	Eclipse Temurin Adoptium JDK version 17.0.x
Java Servlet Container / Web Server	Apache Tomcat version 10.1.x
Web Browsers	MS Edge (v86.0+), Google Chrome (v86.0+), Firefox (v82.0+)

- [1] RAM GiB required is based on the number of concurrent users that will use the application.
  For optimal performance, we recommend about a minimum of 0.5 GB space per login user on the application server.
- If you have 30 users logging in concurrently, the application will need to have a minimum of 15 GB (30*0.5=15) free RAM space allocated to it. This is not the RAM of the server machine. It is the physical RAM allocated to the application server (tomcat JVM) itself.

Database Tier – Minimum Compute & Software Requirements	
Database Server	MS SQL Server: 2016, 2017, 2019, 2022 Oracle Database: 18c, 19c
Processor	64 Bit
CPU Cores / vCPUs / RAM	4 Cores / 8 vCPUs / 64 GiB RAM recommended (32 GiB RAM Minimum)
Database Storage	200 GB storage recommended as minimum starting size. Oracle Table Space 100 GB recommended as minimum starting size.

- Quest Data Intelligence requires a dedicated database/schema, NOT a dedicated server instance.
- The storage/tablespace allocated initially will need to increase over time based on product usage and data growth.
- Azure Cloud databases supported: Azure SQL Managed Instance, Azure SQL Database (PaaS) or SQL Server in a VM.
  AWS Cloud databases supported: AWS RDS SQL or AWS RDS Oracle.

Operating Systems Supported	
Microsoft Windows	Windows Server 2016 and above
Linux Distributions	Linux Versions (Linux Kernel version 4.18 and above)
Amazon Linux	2023
Red Hat Enterprise Linux	v8, v9
SUSE Enterprise / openSUSE	15 sp4 / Leap 15.4
Ubuntu Server	20.04 LTS, 22.04 LTS

- Server class operating system is recommended for production deployments.
- Choice of operating system should be based on customer's skill set and ability to support, manage, maintain the server.

Suggested Cloud Instance Sizing			
Azure VM Series		Amazon EC2 Instance Types	
Intel	(8vCPU/64 GiB) Standard_E8s_v5, Standard_E8ds_v5	Intel	(8vCPU/64 GiB) r6i.2xlarge, r6id.2xlarge r5.2xlarge, r5d.2xlarge
	(8vCPU/32 GiB) Standard_D8s_v5, Standard_D8ds_v5		(8vCPU/32 GiB) m6i.2xlarge, m6id.2xlarge, m5.2xlarge, m5d.2xlarge
AMD	(8vCPU/64 GiB) Standard_E8as_v5, Standard_E8ads_v5	AMD	(8vCPU/64 GiB) r5a.2xlarge, r5ad.2xlarge, r6a.2xlarge
	(8vCPU/32 GiB) Standard_D8as_v5, Standard_D8ads_v5		(8vCPU/32 GiB) m6a.2xlarge, m5a.2xlarge, m5ad.2xlarge
Azure E-series memory optimized VM types recommended Azure Application Gateway or third-party Layer 7 load balancer required for multi-node deployments. Suggested sizes are a starting point only, you may need to upsize instances based on concurrent usage and performance needs		AWS r-family memory optimized instance types recommended. Application Load Balancer or third-party Layer 7 load balancer required for multi-node deployments.	

Note: We highly recommend that you stay compliant with the above-mentioned system requirements for the best experience. In case you need to use a software (database version, browser etc.) that is not listed in the above system requirements, we recommend that you reach out to your erwin support or professional services contact so we can provide a recommendation on the compatibility.

For Proof of Concept/Development Server

Application Tier – Minimum Compute & Software Requirements	
Node Options	Single / Multi
Operating System	Windows Server / Linux Server
Processor	64 Bit
CPU Cores / vCPUs / RAM [1]	2 Cores / 4 vCPUs / 32 GiB RAM recommended (16 GiB RAM Minimum)
Local Storage	100 -200 GB
Java JDK	Eclipse Temurin Adoptium JDK version 17.0.x
Java Servlet Container / Web Server	Apache Tomcat version 10.1.x
Web Browsers	MS Edge (v86.0+), Google Chrome (v86.0+), Firefox (v82.0+)

- [1] RAM GiB required is based on the number of concurrent users that will use the application.
  For optimal performance, we recommend about a minimum of 0.5 GB space per login user on the application server.
- If you have 30 users logging in concurrently, the application will need to have a minimum of 15 GB (30*0.5=15) free RAM space allocated to it. This is not the RAM of the server machine. It is the physical RAM allocated to the application server (tomcat JVM) itself.

Database Tier – Minimum Compute & Software Requirements	
Database Server	MS SQL Server: 2016, 2017, 2019, 2022 Oracle Database: 18c, 19c
Processor	64 Bit
CPU Cores / vCPUs / RAM	2 Cores / 4 vCPUs / 32 GiB RAM recommended (16 GiB RAM Minimum)
Database Storage	100 GB storage is recommended as minimum starting size. Oracle Table Space 75 GB recommended as minimum starting size.

- Quest Data Intelligence requires a dedicated database/schema, NOT a dedicated server instance.
- The storage/tablespace allocated initially will need to increase over time based on product usage and data growth.
- Azure Cloud databases supported: Azure SQL Managed Instance, Azure SQL Database (PaaS) or SQL Server in a VM.
  AWS Cloud databases supported: AWS RDS SQL or AWS RDS Oracle.

Operating Systems Supported	
Microsoft Windows	Windows Server 2016 and above
Linux Distributions	Linux Versions (Linux Kernel version 4.18 and above)
Amazon Linux	2023
Red Hat Enterprise Linux	v8, v9
SUSE Enterprise / openSUSE	15 sp4 / Leap 15.4
Ubuntu Server	20.04 LTS, 22.04 LTS

- Server class operating system is recommended for production deployments.
- Choice of operating system should be based on customer's skill set and ability to support, manage, maintain the server.

Suggested Cloud Instance Sizing			
Azure VM Series		Amazon EC2 Instance Types	
Intel	(4vCPU/32 GiB) Standard_E8s_v5, Standard_E8ds_v5	Intel	(4vCPU/32 GiB) r6i.2xlarge, r6id.2xlarge r5.2xlarge, r5d.2xlarge
	(4vCPU/16 GiB) Standard_D8s_v5, Standard_D8ds_v5		(4vCPU/16 GiB) m6i.2xlarge, m6id.2xlarge, m5.2xlarge, m5d.2xlarge
AMD	(4vCPU/32 GiB) Standard_E8as_v5, Standard_E8ads_v5	AMD	(4vCPU/32 GiB) r5a.2xlarge, r5ad.2xlarge, r6a.2xlarge
	(4vCPU/16 GiB) Standard_D8as_v5, Standard_D8ads_v5		(4vCPU/16 GiB) m6a.2xlarge, m5a.2xlarge, m5ad.2xlarge
Azure E-series memory optimized VM types recommended. Azure Application Gateway or third-party Layer 7 load balancer required for multi-node deployments.		AWS r-family memory optimized instance types recommended. Application Load Balancer or third-party Layer 7 load balancer required for multi-node deployments.	
Suggested cloud instance sizes are a starting point only. Upsizing may be required based on concurrent usage and performance needs.			

Pre-requisites to install Quest Data Intelligence

Eclipse Temurin Adoptium Java JRE and Tomcat webserver are standard prerequisites to install and deploy the Quest Data Intelligence application.

The Quest Data Intelligence 16.0 software is certified to run on the following versions of Tomcat and Java.

Tomcat Webserver	Tomcat 10.1.x
Java	Eclipse Temurin Adoptium 17.0.x

* Important Note: The Quest Data Intelligence v16.0 has been officially certified on Tomcat 10.1.x and Java 17.0.x. We recommend that you install tomcat 10.1.x versions to avoid any compatibility issues. If you are on the older Tomcat 8x or 9x version, it is *mandatory* that you upgrade to Tomcat 10.1.x before installing DI 16.0.

Additional Note

- We recommend that you use the certified versions of Tomcat and Java for the best experience. In case you need to use a point version that is above or below the certified versions, the product might still work as expected on the non-conformant point versions, but we recommend that you reach out to your erwin support or professional services contact so we can provide a recommendation on the compatibility.
- From a *best practice perspective*, although not mandatory, we recommend that you install the Java and Tomcat software versions and the Quest Data Intelligence application on the *D drive* (versus C drive as the C drive is typically reserved for server maintenance and monitoring tools). This also avoids filling up the C: drive and preventing the physical server from starting.

Memory Allocation to Web Server

Allocate memory as high as possible to the tomcat web server based on the RAM size of the server.

E.g. If the server has a 32 GB RAM, the web server needs to be allocated a minimum of 50% of the RAM to begin with i.e. 16 GB minimum. The higher the memory allocation, the better for the functioning of the application.

An example of the recommended Memory allocation to Tomcat would look as follows:

Physical RAM on Server	Allocation to Tomcat
16 GB	12 GB
32 GB	16 – 28 GB
64 GB	48 – 54 GB

Note: 32-64 GB is recommended for Production installs, while 16 GB is recommended for Proof of Concepts (POCs)/Dev.

End-user Machine/Laptop Specifications

End User Machine/Laptop Configuration	
Processor	i3 and above
Minimum RAM	8 GB
Minimum Free Space available	1 – 2 GB

- The CPU should have minimum 1 – 2 GB RAM free space while accessing the Quest Data Intelligence application via a web browser.
- e.g., If you have a 4GB laptop and any application is occupying 100%CPU space, then the Quest Data Intelligence web pages will not load until some physical memory is freed up.