

Deltek Vision® 7.6

**Technical Overview and System Requirements: Advanced
Deployment (150 or More Employees)**

August 1, 2018

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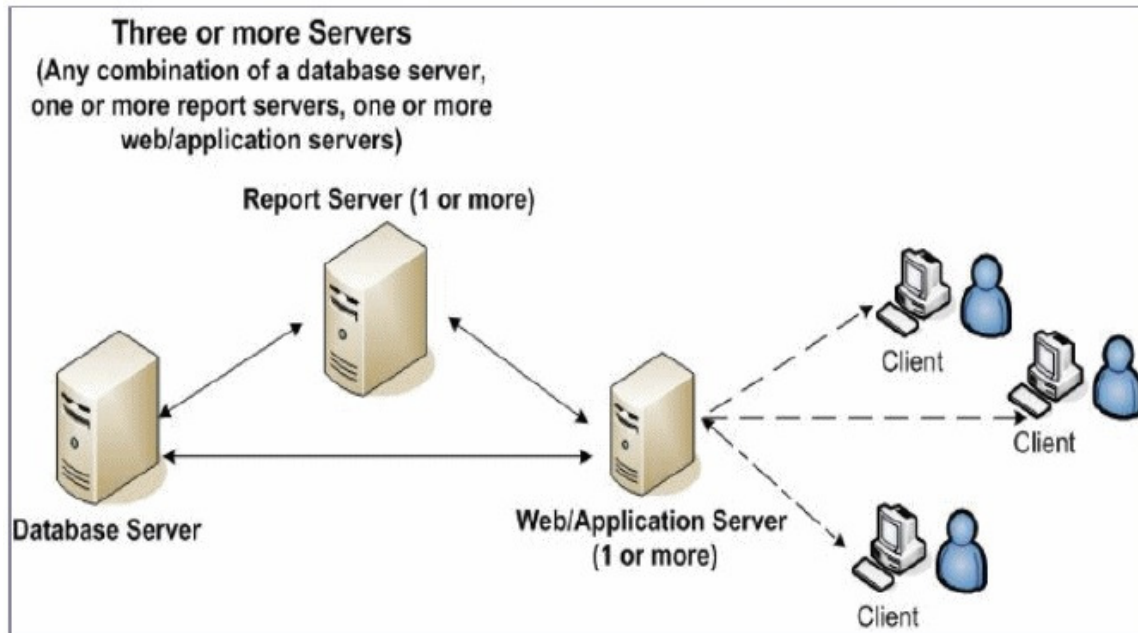
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Introduction

This document provides your firm's IT department with information about the technical deployment of Vision using the advanced deployment model for 150 or more employees (three Vision logical tiers, and three or more physical servers).

Advanced Deployment Model (150 or More Employees)



Deployment Models

Deltek has designed several Vision deployment models to ensure the best fit with your firm's environment:

- **Simple** — One physical server (1–25 employees)
- **Basic** — Two physical servers (25–150 employees)
- **Advanced** — Three or more physical servers (150 or more employees)

For information on the simple and basic deployments, see the following guides:

- *Deltek Vision Technical Overview & System Requirements: Simple Deployment (1–25 Employees)*
- *Deltek Vision Technical Overview & System Requirements: Basic Deployment (25-150)*

Vision Tiers

Vision's tiers are all logical tiers, which can be collapsed or allocated to as many physical servers as needed by your firm.

The Vision tiers that you must deploy are:

- Web/Application
- Reporting
- Database

Legal Disclaimer

Legal Disclaimer: The recommendations in this document are intended to convey general information and should not be relied upon as a substitute for a professional consultation with Deltek. All the information in this document is provided "as is" and without warranties of any kind, either expressed or implied.

It is important to note that the choices of hardware, database, and operating system in these examples represent *guidelines*, are subject to change, and do not replace a needs analysis and site survey with a Deltek Technical Consultant. *Contact a Deltek Technical Systems Engineer for suitability of legacy equipment.*

The evolution of technology dictates the way IT professionals plan their network hardware and software environments. While this document does not account for all possible options in the deployment of Deltek software, it does provide specific recommendations based on testing metrics and years of experience working directly with Deltek customers.

Prior to making assumptions on how specific third party technologies will perform with Deltek applications, Deltek recommends contacting your sales representative to arrange a discussion with a Deltek Technical Systems Engineer who can help you plan for a cost effective and optimally performing application environment.

Consulting

Deltek can provide onsite consulting and training services as well as phone support on a contract or time-and-materials basis.

Contact Information

Please contact a Deltek Technical Systems Engineer at techse@deltek.com for more information.

Unsupported Configurations

The Vision installation does **not** support installing any Vision tier on any of the following servers:

- Domain Controller
- Microsoft Exchange Server
- Windows Terminal Server/Citrix Server
- Proxy, Firewall, or ISA Server
- Microsoft SharePoint Portal Server
- Installing any Vision tier (except Database tier) on Small Business Server

Using these servers causes significant issues in the performance, reliability, and functionality of the Vision application and the other applications on your network.

If you try to install Vision on any one of these servers, the installation routine will detect the unsupported server and cancel the installation.

Distributed Computing

The architecture of Vision is based on Microsoft .NET, which allows the application to use the distributed computing model. In this model, each Vision tier is responsible for handling a specific set of application processes. This allows each process to pull from its own pool of resources — thereby improving performance and reliability.

The distributed computing model also improves the scalability of Vision, which means you can deploy as many servers as necessary to meet the needs of your clients. In many cases, these changes to the server environment are seamless to end users.

Vision Tier Model and Technologies

Presentation (Client) Tier/Vision Smart Client

DelteK is utilizing Microsoft's ClickOnce technology to deploy our new Smart Client applications. These Windows Forms-based Smart Client applications require that the client workstation has .NET Framework 4.5.2 or 4.6.1 installed. If that pre-requisite is missing, ClickOnce displays an Application Run – Security Warning form and stops the application download. Provided the .NET Framework 4.5.2 or 4.6.1 is installed, a download of approximately 16 MB is initiated and completed on the end users workstation after that one click from the user. After this one click installation the end user is now ready to work with the Smart Client application.

The ClickOnce technology does not require that end users have local administrative rights on their workstation. It allows Vision to recognize when an update is required on the client machine for our Smart Client applications and performs the download automatically. This eliminates the need for IT employees to perform the upgrade process.



The Presentation tier communicates only with the Web/Application server.

Operating system and browser requirements for the Presentation (Client) Tier are described in the following table.

	Presentation (Client) Tier Technologies
Operating System	<ul style="list-style-type: none"> Windows 10 Windows 8.1 Windows 7 SP1
Browser	<ul style="list-style-type: none"> Microsoft Edge Browser, Internet Explorer 10 and later Microsoft .NET Framework version 4.5.2 or 4.6.1 the infrastructure of the .NET platform, including Common Language Runtime and the .NET class library

Connect for Microsoft Outlook (CMO)

DelteK Vision Connect for Microsoft Outlook is add-in software that allows you to perform important and common Vision tasks directly in Microsoft Outlook®. You can manage Vision business appointments, emails, and contacts, as well as Vision customers, activities, and opportunities, all from Outlook.

Connect for Microsoft Outlook Client Tier Technologies	
Operating System	<ul style="list-style-type: none"> Windows 10, Windows 8.1, Windows 7 SP1
Email Client 64-bit - supported with Connect for Microsoft Outlook 1.3.3.23 or higher only	<ul style="list-style-type: none"> Microsoft Office 365, (OWA not supported) Microsoft Outlook 2016, Microsoft Outlook 2013, Microsoft Outlook 2010, Microsoft Outlook 2007 SP2 32-bit and 64-bit supported

Connect for Microsoft Outlook Client Tier Technologies

Email Server	<ul style="list-style-type: none"> Microsoft Exchange 2013, Microsoft Exchange 2010, or Microsoft Exchange 2007 SP3, Cached Exchange Mode Only PST Files configured with POP3 Connections to SMTP Servers, (Gmail, Yahoo Business Mail used with Outlook)
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Microsoft Office Desktop Integration (MODI)

MODI allows you to integrate Vision information with Microsoft Word and Outlook. This includes sharing client, contact, lead, and activity information, as well as searching the Vision text library for data to include in your Word documents.

In addition, you can automatically generate Vision clients, contacts, and activities, and search your Vision database directly from your desktop. MODI allows you to complete all of these actions without opening Vision from the browser.

Web/Application Tier

The Web/Application tiers are always installed to the same physical server. The Vision installation does not allow for these tiers to be installed on separate physical servers.

Operating system, browser, and system requirements for the Web/Application tier are described in the following table.

Web/Application Tier Technologies

Operating System	<ul style="list-style-type: none"> Windows Server 2016 Windows Server 2012 R2 Windows Server 2012
Browser	Internet Explorer 10 or later (WebLink Utility)
System	<ul style="list-style-type: none"> IIS 10, 8.5, 8.0 depends on your OS version Microsoft .NET Framework v. 4.5.2 or 4.6.1, the infrastructure of the .NET platform, including the Common Language Runtime and the .NET class library SQLXML — querying, updating and converting XML to relational data Microsoft XML Core Services; allows the Vision application to adhere to XML standards ADO.NET — Database Communication - installed with .NET Framework 4.5.2 or 4.6.1

Report Tier

The Report tier contains the SQL Reporting Services software. All Vision reports that are generated, previewed, and printed are done so on this tier.

Operating system, browser, and system requirements for the Report tier are described in the following table. Please contact the Deltek Technical Systems Engineers at techse@deltek.com with any questions.

Report Tier Technologies	
Operating System	<ul style="list-style-type: none"> Windows Server 2016 Windows Server 2012 R2 Windows Server 2012
Browser	Internet Explorer 10 or later (SQL Reporting Services Management Console)
System	<ul style="list-style-type: none"> Microsoft SQL Server 2017 CU6, Microsoft SQL Server 2016 SP1 CU6, Microsoft SQL Server 2014 SP2 CU11, Microsoft SQL Server 2012 SP4, Standard, Business Intelligence or Enterprise editions SQLXML — querying, updating and converting XML to relational data Microsoft .NET Framework version 4.5.2 or 4.6.1 — the infrastructure of the .NET platform, including the Common Language Runtime and the .NET class library Microsoft XML Core Services; allows the Vision application to adhere to XML standards ADO.NET — Database Communication - installed with .NET Framework 4.5.2 or 4.6.1
64-Bit Support	Deltek does not support running 32-bit applications on 64-bit operating systems.

Database Tier:

The Database tier is the repository of all your firm's data and business information. Operating system, browser, and system requirements for the Database tier are described in the following table. Please contact the Deltek Technical Sales Engineers at techse@deltek.com with any questions.

Database Tier Technologies	
Operating System	<ul style="list-style-type: none"> Windows Server 2016 Windows Server 2012 R2 Windows Server 2012
Browser	Internet Explorer 10 or later (SQL Reporting Services Management Console)
System	<ul style="list-style-type: none"> Microsoft SQL Server 2017 CU6, Microsoft SQL Server 2016 SP1 CU6, Microsoft SQL Server 2014 SP2 CU11, Microsoft SQL Server 2012 SP4, Standard, Business Intelligence or Enterprise editions SQLXML — querying, updating and converting XML to relational data Microsoft .NET Framework version 4.5.2 or 4.6.1 — the infrastructure of the .NET platform, including the Common Language Runtime and the .NET class library Microsoft XML Core Services; allows the Vision application to adhere to XML standards ADO.NET — Database Communication - installed with .NET Framework 4.5.2 or 4.6.1

Document Management Tier

The Document Management tier allows the Vision application to interface with Windows SharePoint Services for uploading and downloading documents to the SharePoint database.

Document Management Tier Technologies	
Operating System	<ul style="list-style-type: none"> Windows Server 2016, Windows Server 2012/2012 R2
Browser	Internet Explorer 10 or later
System	<ul style="list-style-type: none"> IIS 8.5, 8.0; depends on your operating system version Microsoft SharePoint Server 2010 SP2, Microsoft SharePoint Foundation 2010 SP2, Microsoft SharePoint Foundation 2013, Microsoft SharePoint 2013, Microsoft SharePoint 2013 SP1, (Required for Windows Server 2012 R2) Web Service Extensions 4.5.2 or 4.6.1; Security Plug-in for designing and executing a .NET application.

Vision Performance Management Tier

The Performance Management Dashboard is a business intelligence tool that executives and managers use to view and interact with critical project and general ledger data using a variety of graphical representations of that data. These performance dashboards offer a customized graphical component for the Vision Dashboard.

Vision Performance Management Tier Technologies	
Operating System	<ul style="list-style-type: none"> ▪ Tableau Server: Windows Server 2016, Windows Server 2012/2012 R2 ▪ OLAP Server: Windows Server 2016, Windows Server 2012/2012 R2 <p>* Essentials & Foundation are not supported for Windows Server 2012</p>
System *SQL Express is not supported	<ul style="list-style-type: none"> ▪ Microsoft SQL Server Analysis Services 2016 SP1, Microsoft SQL Server Analysis Services 2014 SP2 CU2, Microsoft SQL Server Analysis Services 2012 SP3 CU3, Windows Domain Required ▪ Standard, Business Intelligence or Enterprise editions ▪ SQL Server Integration Services
Embedded Technology	<ul style="list-style-type: none"> ▪ Tableau Server 9.2, 9.3.5

** Vision Performance Management is supported only with Vision 7.1 and later. The enhanced OLAP cubes require version 7.0 or later.*

** SQL Server Analysis Services must be installed on the Vision database server.*

** Tableau should be installed on a dedicated server.*

** Some of the Vision Analysis Cubes functionality, new in Vision 7.0 and later versions, works only if you have Microsoft SQL Server Enterprise Edition installed. For further information, please see the Deltek Vision Performance Management Install Guide.*

Delttek iAccess

iAccess for Vision is a powerful tool that is accessible from almost any browser and tablet device. Divided into three workspaces--Employee, Project Management, and Business Development--iAccess includes features that benefit multiple organizational roles.

iAccess Technologies	
Operating System	<ul style="list-style-type: none"> Windows Server 2016, Windows Server 2012/2012 R2 <p>* Normally installed on Vision Web/Application server</p>
Mobile Browser	<ul style="list-style-type: none"> Google Chrome on Android 4.0+ Google Chrome on iOS 6.0+ Safari Mobile on 6.0+
Browser	<ul style="list-style-type: none"> Internet Explorer 9 or later Google Chrome 18 or later Safari 5 or later Firefox 3.6 or later Opera 11.0 or later
Client	<ul style="list-style-type: none"> Windows 8, Windows 7 SP1 Mac Linux Android Tablets iPad
System	Microsoft .NET Framework version 4.5.2 or 4.6.1

Deltek Touch Time & Expense

Deltek Touch Time for Vision is a time-tracking tool that allows you to enter, update, submit, and view timesheet data from anywhere at any time using your Android and iOS devices. To use Touch Time for Vision, a server component must be installed on a server (a Vision server or a separate server). You have the option of installing the application (*Touch Time for Deltek Vision*) from *Google Play* or *Apple App Store*.

Deltek Touch Technologies	
Operating System	<ul style="list-style-type: none"> Windows Server 2016, Windows Server 2012/2012 R2
Web Server Components	Internet Information Services 8.5, 8.0 (CGI enabled) * Can be installed on separate IIS Web Server or on the Vision Web Server
Mobile Operating System	<ul style="list-style-type: none"> Apple iOS 6.1 and later Android 4.x and later Windows 8.1
Deployment	<ul style="list-style-type: none"> Native Device Browser to the Touch Time Vision URL Download from Apple App Store, Google Play or Windows Store

Deltek Touch CRM

Deltek Touch CRM for Vision is a business development tool that allows you to enter, update, and view client and contact data from anywhere at any time using your Android and iOS devices. To use Touch CRM for Vision, a server component must be installed on a server (a Vision server or a separate server). You have the option of installing the application (*Touch CRM for Deltek Vision*) from *Google Play* or *Apple App Store*.

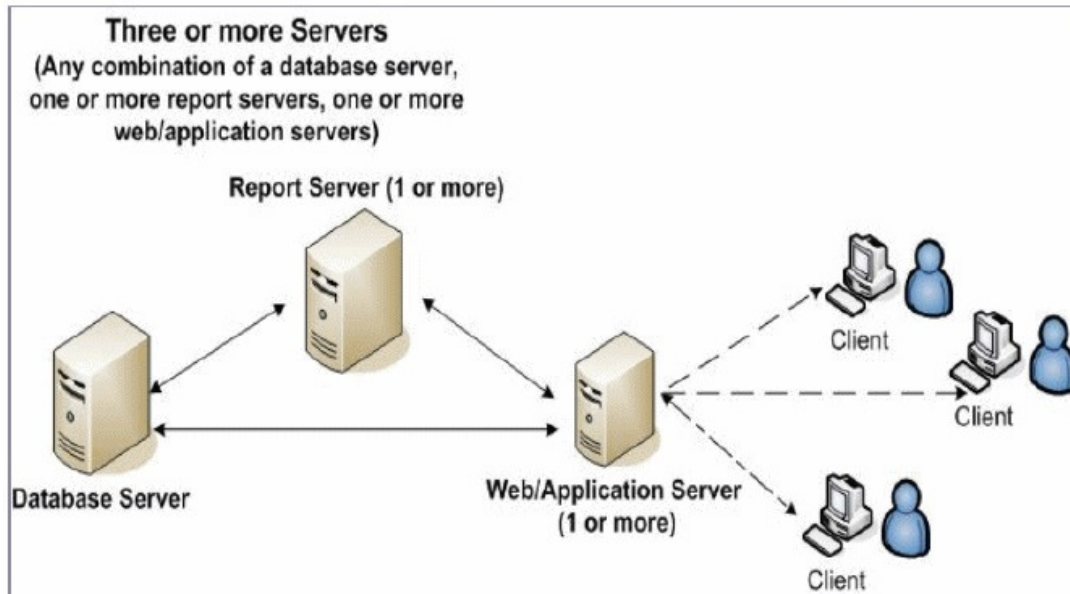
Deltek Touch Technologies	
Operating System	<ul style="list-style-type: none"> Windows Server 2016, Windows Server 2012/2012 R2
Web Server Components	Internet Information Services 8.5, 8.0 (CGI enabled) * Can be installed on separate IIS Web Server or on the Vision Web Server
Mobile Operating System	<ul style="list-style-type: none"> Apple iOS 6.1 and later Android 4.x and later Windows 8.1
Deployment	<ul style="list-style-type: none"> Native Device Browser to the Touch Time Vision URL Download from Apple App Store, Google Play or Windows Store

Advanced Deployment (Three or More Physical Servers)

The Web/Application, Reporting, and Database tiers all reside on individual physical servers.

The advanced deployment model is designed for large firms with 150 or more employees that may have multiple locations and will be using Vision on an internal Wide Area Network (WAN). Additional Reporting, Web, or Application servers may be needed to meet your firm's load, performance, security, or fault tolerance requirements.

This model is designed for firms that have complex deployment requirements. Firms that deploy this model should have in-house IT staff who are proficient in firewall management.



Hardware and Software Requirements

The number of people using Vision, the Vision modules they are using, and the size of your database all have an effect on the hardware and software requirements for your servers.

Your hardware and software requirements are also affected by the deployment model you choose.

Minimum Hardware and Software Requirements

The following table lists the recommended minimum hardware and software requirements for a Vision advanced deployment (three or more physical servers).

Client Tier	Hardware/Software Required	Determining Factors
Database Tier	<ul style="list-style-type: none"> Server Class Machine 1 - 2 Quad-core 2.5 GHz or faster CPU 6 + GB Physical Memory 64-bit RAID 5 or RAID 10 Disk array Windows Server 2016, Windows Server 2012/2012 R2 Microsoft SQL Server 2017 CU6, Microsoft SQL Server 2016 SP1 CU6, Microsoft SQL Server 2014 SP2 CU11, Microsoft SQL Server 2012 SP4, Standard, Business Intelligence or Enterprise editions 	<ul style="list-style-type: none"> Database Size Database Growth Vision Modules
Reporting Tier *Additional SQL licensing costs may be incurred if installing SQL Reporting Services on a dedicated report server	<ul style="list-style-type: none"> Server Class Machine 1 - 2 Quad-core 2.5 GHz or faster CPU 6 + GB Physical Memory 64-bit RAID 1 Disk array Windows Server 2016, Windows Server 2012/2012 R2 Microsoft SQL Server 2017 CU6, Microsoft SQL Server 2016 SP1 CU6, Microsoft SQL Server 2014 SP2 CU11, Microsoft SQL Server 2012 SP4, Standard, Business Intelligence or Enterprise editions 	<ul style="list-style-type: none"> Power Users Database Size
Web/Application Tier * These specs can also be used for a dedicated Touch and iAccess Servers	<ul style="list-style-type: none"> Server Class Machine 1 - 2 Quad-core 2.0 GHz or faster CPU 4 GB Physical Memory 32-bit/6 GB Physical Memory 64-bit RAID 1 Disk array Windows Server 2016, Windows Server 2012/2012 R2 	<ul style="list-style-type: none"> Total Users Power Users User Location Vision Modules

Workstation — Minimum Requirements

The following table lists the minimum hardware and software requirements for the Client tier (web application only).

Client Tier	Hardware/Software Required	Determining Factors
Minimum	<ul style="list-style-type: none"> Intel 1.8 GHz or higher 1 GB RAM 40 GB Hard Drive 1024x768 SVGA Video Display 100 Mb Network Card Windows 10, Windows 8, Windows 8.1, Windows 7 SP1 Microsoft Internet Explorer (IE) 10.0 or later Microsoft.NET Framework v.4.5.2 or 4.6.1 	Usage

Workstation — Recommended Requirements

The following table lists the recommended hardware and software requirements for the Client tier.


Client Tier	Hardware/Software Required	Determining Factors
Recommended	<ul style="list-style-type: none"> Intel 2.0 GHz or higher 2 GB RAM 40 GB Hard Drive 100 Mb Network Card Windows 10, Windows 8.1, Windows 8.0, Windows 7 SP1 Microsoft Internet Explorer (IE) 10.0 or later Microsoft.NET Framework v.4.5.2 or 4.6.1 The infrastructure of the .NET platform, including the Common Language Runtime and the .NET 	Usage

Performance Management Tier — Hardware Requirements

The following table lists the recommended hardware and software requirements for the Performance Management tier.

Tier	Hardware/Software Required	Determining Factors
Performance Management Tier 1-2 users	<ul style="list-style-type: none"> Four Core 2.0 GHz or higher 8 GB RAM 40 GB Hard Drive 100 Mb Network Card Windows Server 2016, Windows Server 2012/2012 R2 	Usage
Performance Management Tier Up to 25 users	<ul style="list-style-type: none"> Eight Core 2.0 GHz or higher 32 GB RAM 40 GB Hard Drive 100 Mb Network Card Windows Server 2016, Windows Server 2012/2012 R2 	Usage
Performance Management Tier Up to 100 users	<ul style="list-style-type: none"> Sixteen Core 2.0 GHz CPUs or higher 32 GB RAM or more 40 GB Hard Drive 100 Mb Network Card Windows Server 2016, Windows Server 2012/2012 R2 	Usage

* For Enterprise deployments please contact the Deltek Technical Systems Engineers at techse@deltek.com for sizing and technical guidance.



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