

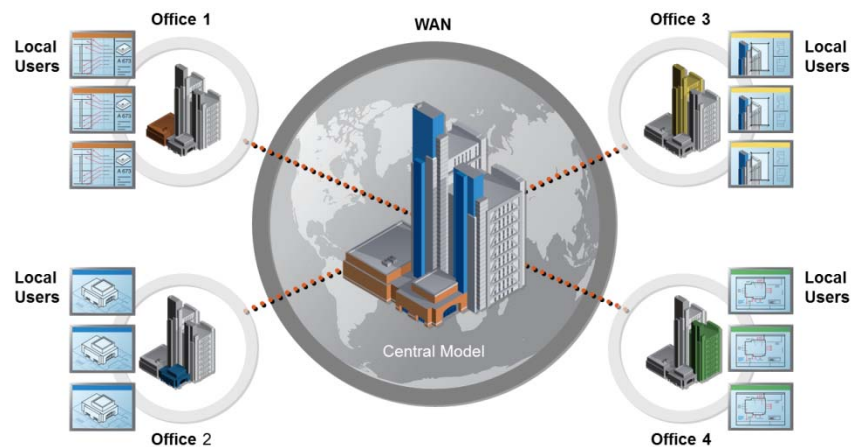
# Understanding Revit® Server

Autodesk Revit Server is the foundation for server-based worksharing of Revit projects across a wide area network.

## Executive Overview

Revit Server provides a mechanism whereby contributors from geographically dispersed sites can work together on a single Revit model, using familiar worksharing workflows.

By transparently replicating data from a single centralized location to each site, Revit Server reduces – and in many cases eliminates – the need to move data over long distances in direct response to user activity. Thus, even when users are separated by large distances, the experience is similar to that of working together on a model from within the same local area network.



## Revit Server: A Conceptual Model

*How can Revit Server be leveraged to improve project collaboration between teams that are in different geographic locations?*

Let's imagine a firm with four offices: San Francisco, Chicago, Atlanta, and New York City.



## Understanding Revit Server

Revit Server is installed at one location to host the central model for each project under development. This installation (in blue) is called the Central Server.



For each additional site with a user requiring access to this data, another instance of Revit Server is installed. These locations (in yellow) are called Local Servers.



Each Local Server is connected to the Central Server and maintains a copy of the Central Server's data. The copies are kept up-to-date transparently without any user or administrator intervention. This collection of servers and the data therein is known as the Revit Server network.



To access a model on the Revit Server network, a Revit user connects to the Local Server at that site. (See User Experience section below.) In most cases, the data is retrieved from that local server. Thus, with the Revit Server network, model data is nearly always close to the user regardless of that particular user's location.



# User Experience

The following section describes the user experience from an end-user's and IT professional's perspective.

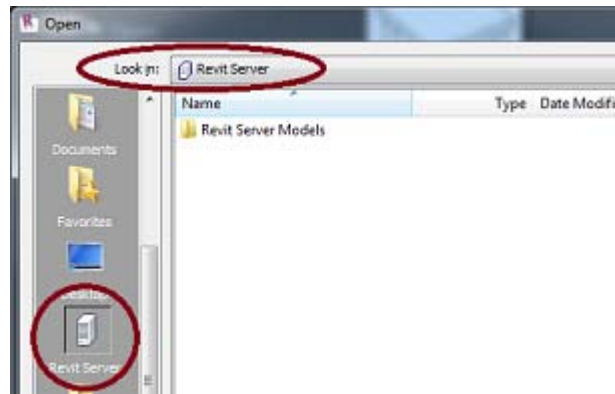
## End User

To access content on the Revit Server network, a user connects to it by using the Connect to Revit Server button on the ribbon and specifying the server at that site.



Alternatively, an IT manager can publish this server location as a value via an automated script, as this information is persisted in a desktop OS environment variable. This eliminates the need for the user to know which server should be used.

Once connected to the Revit Server network, the user will see a new location in the File Open dialog called "Revit Server." Because data is replicated across the Revit Server Network, every Revit Server has access to the same data.



The same worksharing functionality used to collaborate within a single site can be used to collaborate with users on the Revit Server network: creating local copies of a central, synchronizing with central, reloading latest, managing worksets, and borrowing elements.

Thus, from the end-user's perspective, only the location of the central model differs between collaborating with users in the same office and collaborating with users spanning multiple offices via Revit Server.

## IT Manager

To facilitate ease of installation and deployment, Revit Server has been designed to use a collection of standard Microsoft® technologies:

- .NET
- Internet Information Services (IIS)
- Windows® Communication Foundation (WCF)

Microsoft Silverlight (for the web-based Administration application only) Network communication is conducted using standard protocols:

- TCP/IP is used for the transport of model data throughout the Revit Server Network.
- HTTP is used for access to the web-based Administration application.

Revit Server is supported on the following operating systems:

- Windows Server 2008
- Windows Server 2008 R2

Revit Server supports virtualization through the following technologies:

- VMware
- Microsoft® Hyper-V™

## Conclusion

Revit Server is the server component for Autodesk Revit Architecture, Autodesk Revit MEP and Autodesk Revit Structure software. It is the foundation for server-based worksharing for Revit projects and is a viable solution for firms or project teams in geographically dispersed locations to effectively collaborate on projects over a WAN.