



**COUGAR
MOUNTAIN
SOFTWARE**

DENALI

BEFORE YOU BEGIN INSTALLING DENALI

Use this guide to help you determine the best type of installation for your business

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Chapter

3

Understanding the Structure of Denali

Overview of Denali Structure

Database

Server Components

Client Components

Denali License Manager

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Denali is a powerful product that uses a scalable structure. This means that Denali can handle transaction volume increases without slowing down. Also, as your company grows, Denali can grow with you. This chapter provides basic information on its structure. By understanding how each tier works within the structure, you will see how Denali is built to meet the needs of our customers.

Overview of Denali Structure

The structure of Denali consists of three tiers. Each of these tiers serves a specific purpose in the overall function of the system. When these tiers are combined, they provide the complete structure and scalability of Denali.

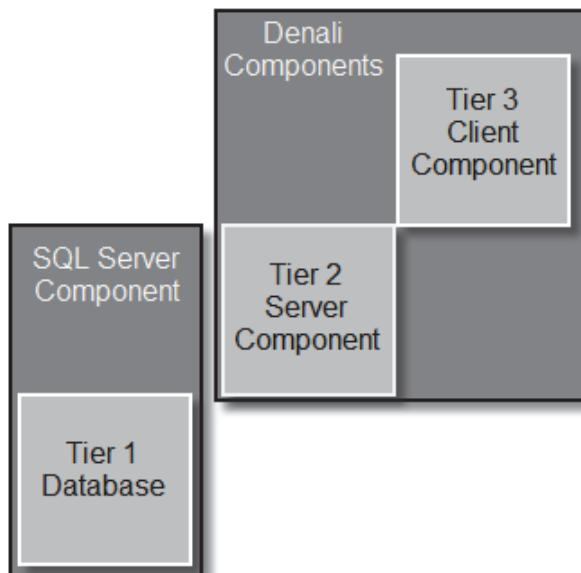


Figure 1: Denali's tiered structure

In this image, Tier 1 represents the SQL Server database that stores and manipulates the data Denali uses (see “Database” on page 5). Tier 2 and Tier 3 are the components that make up Denali and function as data input and retrieval components (see “Server Components” on page 6 and “Client Components” on page 6).

These components all work together and, depending on your networking needs, you can install them on different machines. However, when you begin the installation process, you must install certain components first. For more information, refer to the installation user’s guide for the type of installation (see “Determine Your Type of Installation” on page 9) you will perform.

Database

This tier of the structure is the component that stores and manipulates the data used by Denali. This database is used in conjunction with Structured Query Language (SQL) to enhance the power of Denali. When you install Denali, you can also install SQL Express, which is included as part of your Denali software package.

Server Components

The next tier in the Denali structure is composed of the server components, which are used by the system to process information requests from each workstation. These components handle the business and accounting logic of the application, and tell the database what information to retrieve based on the data the user enters on the workstation machine.

Also within this tier is COM+, which is an important aspect that allows multiple connections. This Microsoft® communication component can manage all of the users as they connect to the server at the same time.



Figure 2: *The communication flow in Denali*

Based on this information flow, when a clerk enters a sales transaction on a workstation machine and needs to look up information in Inventory, the workstation queries the server, which then returns the information that appears in the Lookup. Information flows the same when you run reports and post transactions.

For more information on which type of installation option is best for your business, see “Different Installation Options for Denali” on page 8.

Client Components

This is the final tier in the structure and serves as the interface component with which any user interacts with the data in Denali. For instance, this is the workstation that the clerk uses to enter the transaction data into the system. This is also the component used to request (query) information from the server database (see “Server Components” on page 6) when you look up information, run reports, or post transactions.

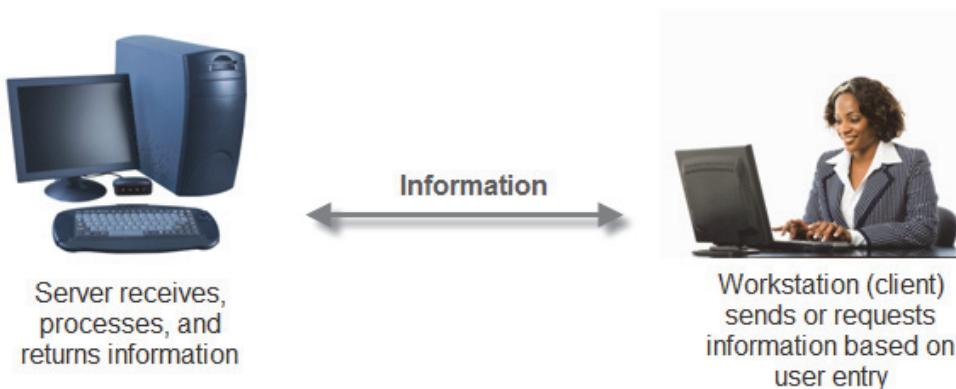


Figure 3: Information flow with Client components in Denali

Denali License Manager

The Denali License Manager can be thought of as a user manager. This program continually monitors the number of purchased licenses for each Denali module and the number of users logged on to each module at one time. If a module already has the same number of users logged into it as there are licenses available, another user cannot log into Denali until someone else logs out.

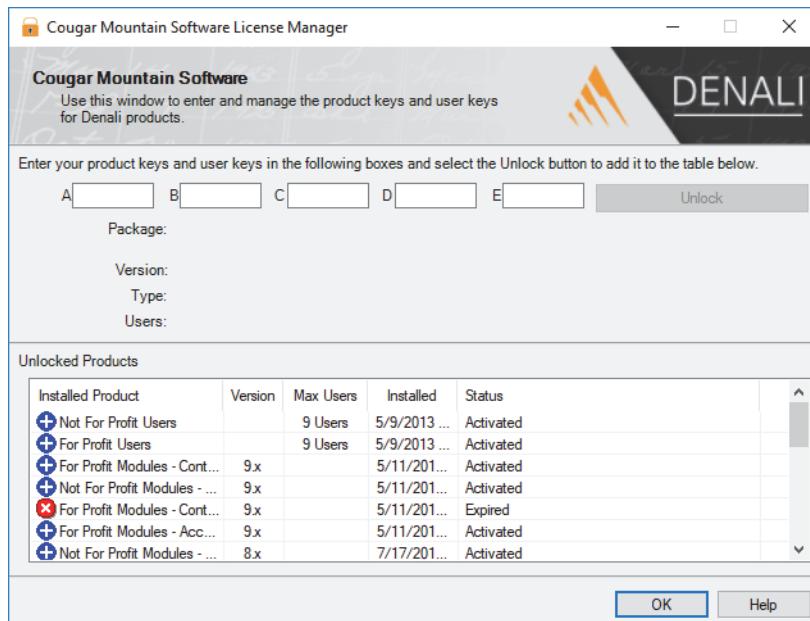


Figure 4: Denali License Manager

You can install the Denali License Manager on the same machine as the Denali Components (see “Database” on page 5), but it is usually installed on the same machine as SQL Server (see “Server Components” on page 6).

Chapter

4

Different Installation Options for Denali

Determine Your Type of Installation

Individual Workstation

Stand-alone Plus Additional Workstations

Dedicated Server with Workstations (LAN)

Dedicated Server with Internet Access (WAN)

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This chapter presents some common ways to install Denali. We show four installation configurations and describe the business situation in which each configuration might work. We recommend you review all the options available to determine which installation model most closely matches your needs.

Determine Your Type of Installation

One thing you need to determine before you install Denali is the type of configuration you wish to install. The type of configuration you install primarily depends on the following:

- the number of users that will access Denali at once
- the number of machines on which you will install Denali
- the option of dedicating one or more machines to act as the server machines

Your configuration options for Denali are:

- stand-alone (individual workstation)
- stand-alone plus additional clients (server/client and multiple workstations)
- dedicated server network (LAN or WAN)

This chapter explains each configuration. We recommend you review all of them to make sure you choose the configuration that is best for your business needs. If you choose the dedicated server or stand-alone with multiple clients, you need to make sure that all machines meet the necessary system requirements ([see service.cougarmtn.com/system-requirements-denali/](http://service.cougarmtn.com/system-requirements-denali/)); you will then need to complete the installation on the machine acting as the server first.

If you wish to install separate components on different machines, then you must install the components on the machines in this order:

- 1 Database Component
- 2 Sever Component
- 3 Denali License Manager
- 4 Client Component

While this is not the most common setup, you might wish to do this to increase the application speed if you have a slower system. Refer to “Overview of Denali Structure” on page 5 for more information on the various components.

Individual Workstation

For businesses that will run and operate the software on a single computer, the individual workstation (also referred to as stand-alone) setup will work for you. With this configuration, only one user will be able to access the software at a time on this machine. If you will use more than one machine, consider using a stand-alone plus additional clients installation (see “Stand-alone Plus Additional Workstations” on page 10) or a dedicated server network installation (see “Dedicated Server with Workstations (LAN)” on page 11).



Figure 5: Stand-alone configuration

Once you begin the installation process, you will have the option to install both the client and server components necessary for this type of configuration.

Stand-alone Plus Additional Workstations

This type of configuration uses multiple workstations (clients) to access one database located on the server machine, and still allows you to use the server machine as a workstation. The number of additional workstations that you can set up is based on your hardware and network system.

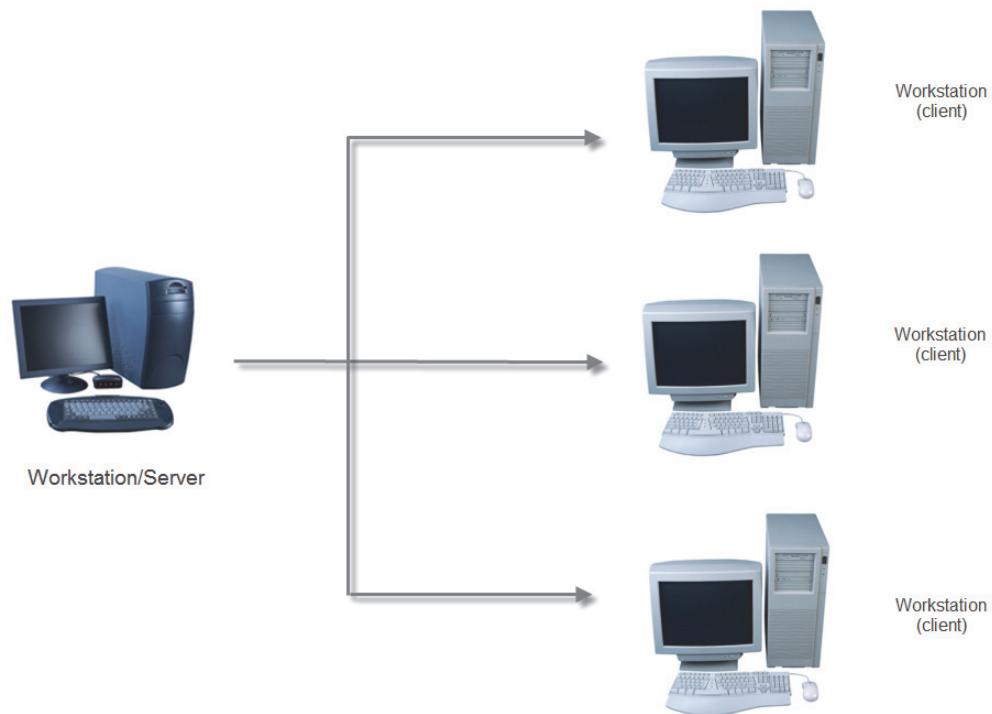


Figure 6: Stand-alone plus additional workstations configuration

There are two sets of steps for this type of installation. First, you will install the client and server components on the machine that will be used as both the server and a workstation (stand-alone). Then, you will install the client components on each of the individual workstation (client) machines.

If you can dedicate one machine as a server only and still have multiple workstations, consider using a dedicated server network installation (see “Dedicated Server with Workstations (LAN)” on page 11).

Dedicated Server with Workstations (LAN)

If your company has one machine to dedicate as a server from which other workstations will access the data, then you might want to install a dedicated server network. This type of configuration allows a larger number of workstations to access the database without diminishing the available resources.

You do not use the server in this type of installation as an actual workstation. By dedicating one machine as the server, you can improve speed and power when you access data from several workstations at one time.

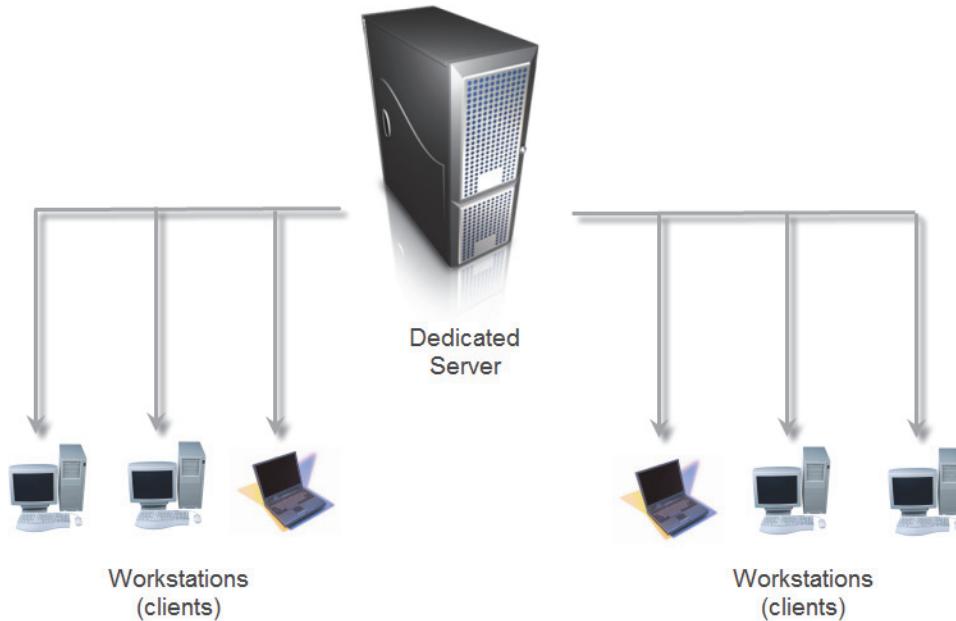


Figure 7: Dedicated server configuration

This type of network setup requires two separate sets of installation steps. First, you will install the server components on the machine you are dedicating as the server. Then you will install the client components on each of the workstation machines.

If you can dedicate one machine as a server, and have multiple workstations that are in different locations, you can also set up this type of installation for WAN/Internet access. See “Dedicated Server with Internet Access (WAN)” on page 12 for more information on this configuration option.

If you do not want to dedicate one machine as a server, but will still have multiple workstations, you might want to consider the stand-alone plus additional clients configuration (see “Stand-alone Plus Additional Workstations” on page 10). If you will run and operate the software from a single machine, an individual workstation configuration might work best for you (see

“Individual Workstation” on page 9).

Dedicated Server with Internet Access (WAN)

With a dedicated server in place, you can have the workstations set up to access the server if they are not in the same location as the server, or utilize more than one dedicated server to increase workflow speed. So, if you have operations nationwide, all of them can access a central database utilizing an internet connection.

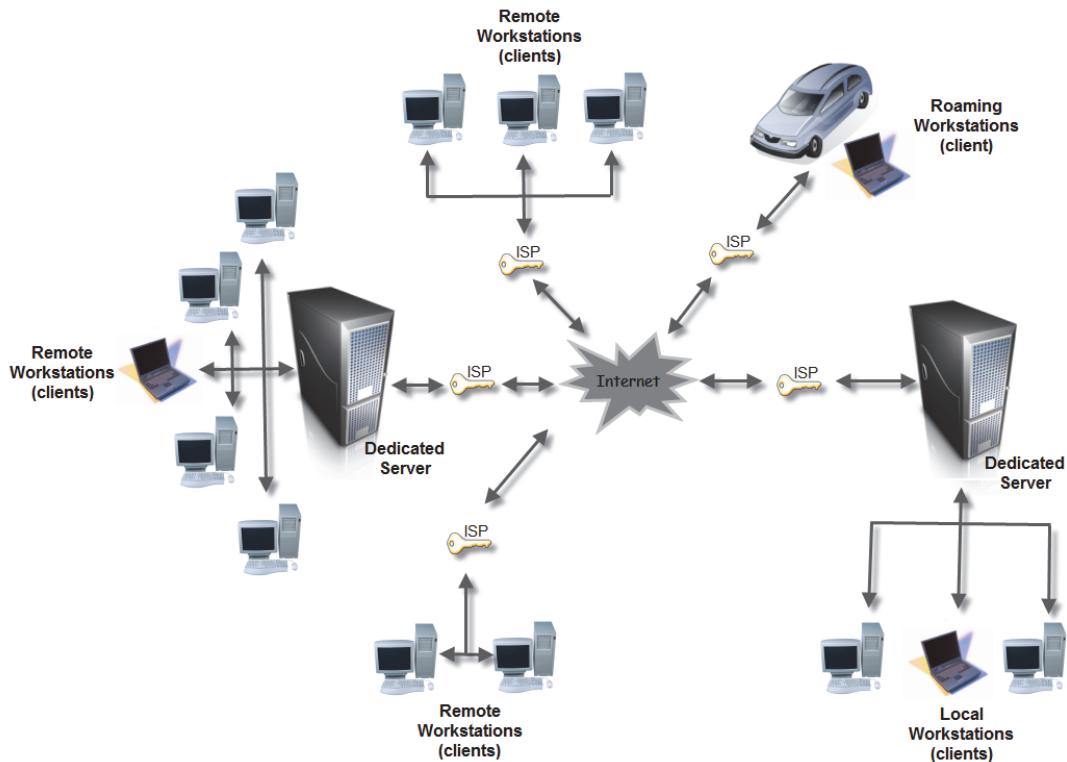


Figure 8: Dedicated server using Internet access configuration

This type of network setup requires two separate sets of installation steps. First you will install the server components on the machine you dedicate as the server. Then, you will install the client components on each of the workstation machines.

We highly recommend you refer to a network specialist before you set up this type of configuration. There are several options that depend on your resources and how you want the network to function, as well as ensure the proper security measures are in place for your data. For example, you could install the server components on a dedicated server at one location and then set up another dedicated server with multiple workstations at a remote location. Then, you could set up the remote location's dedicated server to pass information to the main location server using replication. This type of configuration can help ensure continual workflow and data integrity and security in the remote location even if the internet service is temporarily unavailable.

If you have multiple workstations that are all in the same location and you can dedicate one machine as a server, you might want to set up this type of installation for LAN access instead. See “Dedicated Server with Workstations (LAN)” on page 11 for more information on this configuration option.

If you prefer to not dedicate one machine as a server, you might want to consider the stand-alone plus additional clients configuration (see “Stand-alone Plus Additional Workstations” on page 10), or if you will run and operate the software from a single machine, an individual workstation configuration might work best for you (see “Individual Workstation” on page 9). After you decide on the type of installation that will work best for your business, see the appropriate user’s guide to continue with the installation:

- *Client and Server Installation Guide*
- *Workstation Installation Guide*

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