Agvance Hardware Overview

The following documentation should be used as a guide when buying new hardware for use with Agvance®. Equipment of lesser specifications could yield unsatisfactory results. Call SSI for clarification on existing hardware. These are general recommendations. A qualified hardware technician will help ensure that your system meets your needs and is configured correctly.

The IS department at SSI is available to consult with a qualified hardware technician on Agvance-related hardware questions.

Contact SSI

Phone: 1.800.752.7912
Fax: 1.877.402.2204
Email: **support@agvance.net**

Important Auxiliary Documents

Select the links below for more information.

- Installing SQL Express 2019
- Replacing a Terminal Server
- Manage User Profiles for Remote Desktop Services

Agvance Deployment Scenarios

Agvance supports several flexible deployment scenarios that allow it to scale from single stand-alone deployments to extremely complex deployments serving hundreds of users. Agvance is a multi-tier desktop application consisting of Agvance program files and business logic in one tier and Agvance data, managed by SQL Server, in another tier.
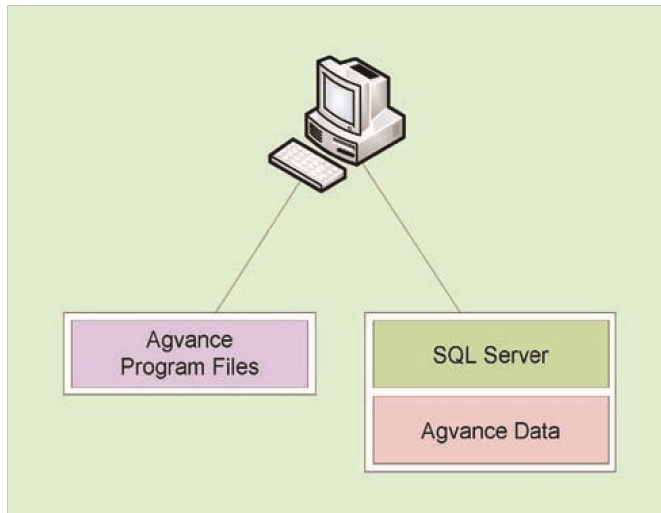
Agvance Hosted

Agvance Hosted offers a way to reduce hardware-related overhead by utilizing cloud computing. With a hosted solution, software resides on a server located in a secure bunker environment equipped with comprehensive firewall security. Agvance Hosted also allows the size of the server to be adjusted based on current needs, providing the flexibility of growing a business without investing in new hardware. Before purchasing new hardware, SSI strongly recommends moving the software to a hosted environment. For more information about Agvance Hosted, contact the Agvance Sales Team at **sales@agvance.net**.

Stand-Alone Deployments

In stand-alone deployments, the Agvance program files and Agvance data can be installed on a single machine. In

this scenario, Microsoft SQL Server is installed on this stand-alone machine. This machine needs to meet the Agvance Workstation Recommended Specifications. The free Express edition of SQL Server is normally sufficient for stand-alone deployments.
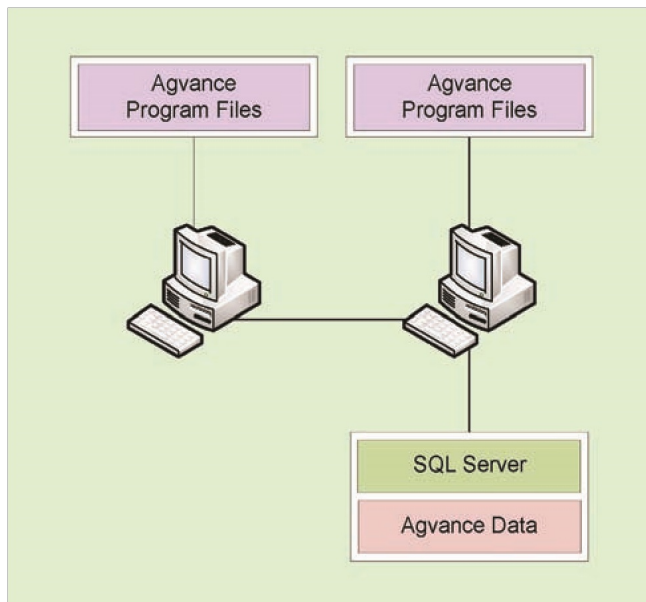

Small Multi-User Deployments

In small deployments of up to five or six networked workstations, the Agvance data can be hosted on one of the workstations. In this scenario, Agvance and Microsoft SQL Server are both installed on the machine hosting the Agvance data, the Agvance data folder is shared, and the data-hosting machine meets the Agvance Workstation Recommended Specifications. The free Express edition of SQL Server is, again, normally sufficient for small deployments. In this scenario, the Agvance program files are installed on each of the other workstations and a drive is mapped to the shared data folder on the workstation hosting the Agvance data.

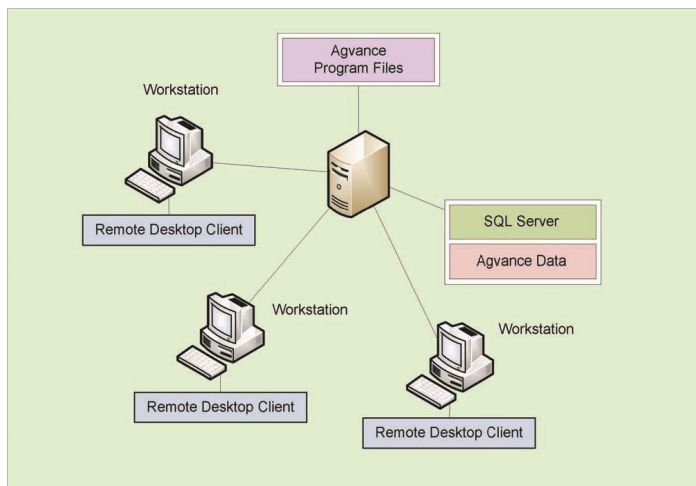## Deployments on Remote Desktop Host Server

Agvance can be installed on a Remote Desktop Host Server (formally called Terminal Server). In this scenario, Agvance program files are installed on the Remote Desktop Host Server, and users connect to the server using a Remote Desktop Protocol (RDP) client.

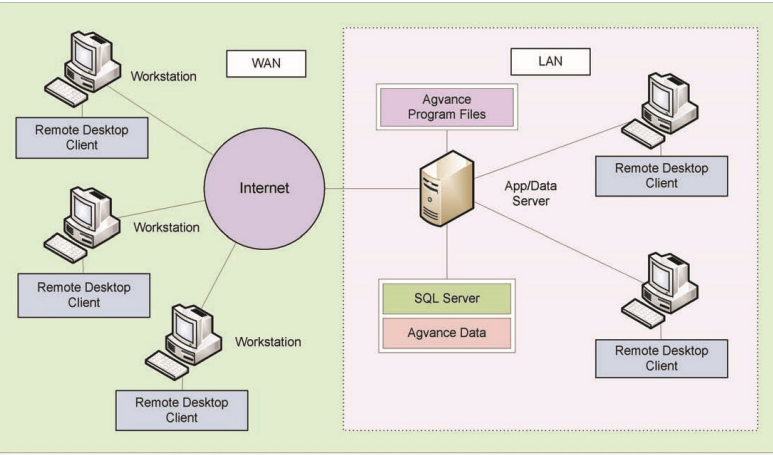There are several benefits when using Remote Desktop Host Server:

- Users can connect to the server and use Agvance on any device with an RDP client, including older or slower desktops, tablets, etc., so long as said devices have a proper connection to the server.
- Agvance is installed only on the Remote Desktop Host Server, so Agvance upgrades are greatly simplified. There is no need to update Agvance on each workstation.
- Because RDP sends screenshots from the server to the workstation as well as keyboard strokes and mouse movements from the workstation to the server, RDP can be used in lower bandwidth situations.
- If the Remote Desktop Host Server has a public IP address, users can connect to the server from home or any other location with an internet connection.

In this scenario, most cases will be composed of Agvance data hosted on a dedicated SQL Server. However, in cases with a limited number of users, the Agvance data can be hosted on the Remote Desktop Host Server if the server is sized appropriately.

Deployments with Remote Locations

Multi-location deployments require Remote Desktop Host Server. In this scenario, the Agvance data server and Remote Desktop Host Server reside at one location, and the other locations connect to the Remote Desktop Host Server via RDP.

Hybrid Deployments

In some cases, customers choose to install Agvance on both Remote Desktop Host Servers and on workstations at the home office. In this scenario, the workstations must be on the same LAN as the Agvance data server.

Scaling up Agvance with Multiple Remote Desktop Host Servers

As a company grows, they can easily add additional Remote Desktop Host Servers to support additional users. Multiple Remote Desktop Host Servers also provide failover options.

Deployments with a Dedicated SQL Server

In all medium and large deployments, Agvance data should be hosted on a dedicated SQL Server. In this scenario, the Agvance data folder is shared, and a drive is mapped to the shared data folder on the workstations and/or Remote Desktop Host Servers.

Hardware Specifications

Workstation Specifications

A workstation runs a single instance of Agvance which connects to the central SQL database hosted either on a workstation running SQL or a separate SQL data server.

	Minimum	Recommended

Processor	Dual Core (or Equivalent)	Quad Core or Better
Minimum Hard Drive	2GB Available	2GB Available
RAM	2GB	4GB or Higher
Monitor Resolution	1024 x 768 or Higher	1024 x 768 or Higher
Operating System	Windows 10 Professional Editions 64 Bit Systems are recommended	

- Use a firewall and keep all anti-virus and anti-spyware software up to date.
- Turn off power saving features on system components - especially network cards.
- Use a battery backup with a power filter on the server and surge protectors on all workstations.

Remote Desktop Host Specifications

Remote Desktop Services (formerly called Terminal Server) allows users to run Agvance on a central server instead of their individual workstations, thus providing centralized installation and management of the Agvance application. Workstations connect to the server using Remote Desktop Services client software. The server connects to the Agvance SQL database hosted on the SQL Data Server.

	Minimum	Recommended
Processor	Quad Core	Quad Core or Better
Minimum Hard drive	2GB Available	2GB Available
RAM	400MB/User	500MB/User
Operating System	Windows Server 2016	

There must be a dependable network connection with no less than 100Mbps bandwidth between the SQL data server and the terminal server.

Permissions Note: All Agvance users and the Windows account used for SQL Server services must be given Full Permissions to *\AgvImage* and all Agvance data folders.

SQL Data Server Specifications

All Agvance workstations and Remote Desktop Services servers connect to the SQL data server that hosts the central Agvance database.

	Minimum	Recommended
Processor	Quad Core	Quad Core or better
RAM	16GB	32GB or Higher
Operating System	Windows Server 2016, 2019, 2022	
SQL 2014, 2016, 2017, 2019, and 2022 are supported with Agvance 5.0.6300 and later		

- The data server hard drives should have at least 20% free space after Agvance installation.
- The processor, hard drive size, and amount of RAM needed will depend on the number of Agvance databases, the size of these databases, the number of users, and the requirements of other applications and data.
- SQL Server should not reside on a domain controller.
- The ability to attach files is limited by the SQL database size. Upgrading to a full version of SQL will allow larger attachments.
  - **SQL Express** – The ability is disabled at 5GB.
  - In a full version of SQL (Workgroup/Standard/Enterprise), the ability is limited to 50% of the max database size.

Microsoft SQL Server Information

	Max CPUs	Max RAM	Max Database Size
SQL Express 2017, 2019, and 2022	4 (cores)	1 GB	10 GB
SQL Express 2014 and 2016	1	1 GB	10 GB
2017, 2019, and 2022 Standard	24 (cores)	128 GB	Unlimited
2014 and 2016 Standard	16	64 GB	Unlimited

SQL Server Editions Notes

SQL Express is the free version of SQL Server.

Agvance uses an instance of Microsoft SQL Server to store business data. However, SQL Server is not included as part of the Agvance install download. A copy of SQL Server may be purchased from a software vendor, or download the free SQL Server Express edition directly from Microsoft.

For assistance installing SQL Server, please contact the IS Support department at SSI at 800-752-7912.

Tested and Supported Printers

General Purpose Document Printers

Most Agvance documents and reports can be printed to most business class laser printers.

However, if using Microsoft Remote Desktop Services, it is recommended to choose a printer from the options found here: **Windows Server Catalog**

Specialty Printers

Outside Scale Ticket Printers

- Epson EU-T400
- Epson EU-T432
- CompuWeigh OTP-4800

Inside Scale Ticket Printers

- Rice Lake (Fargo) SP2200

Quick Ticket Printers

- Star TSP 800
- Epson TM-T88IV
- Epson TM-T88V
- Ithaca iTherm280