

Scale Interface Hardware Configurations

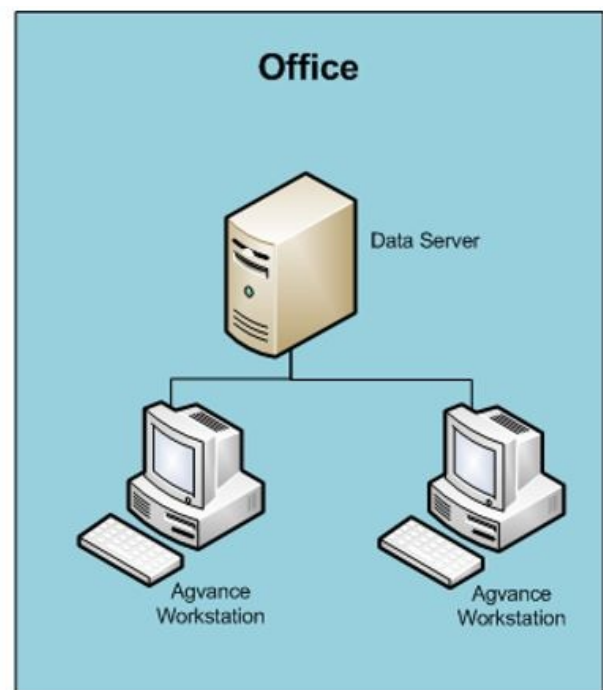
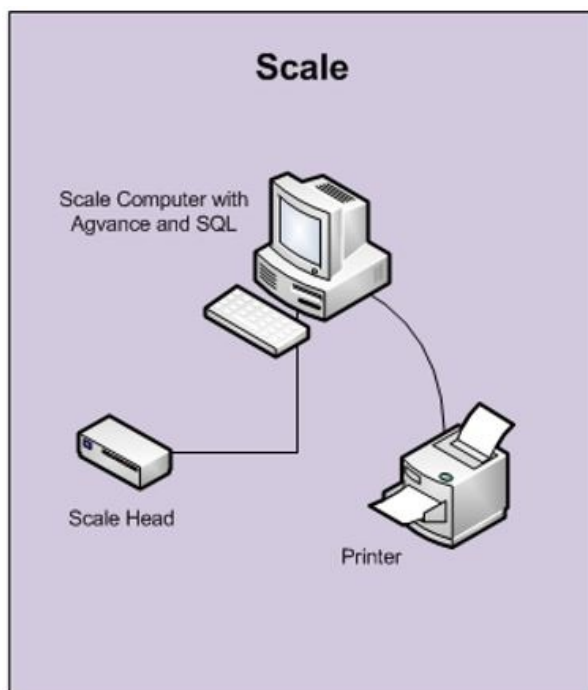
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Q. What are the different hardware configurations for running the Agvance Agronomy and Grain Scale Interfaces, and the pros and cons for each type of setup?

A.

Disconnected

In a disconnected arrangement, the scale computer is a standalone workstation running the Agvance Grain Scale Interface with its own installation of SQL and a copy of the Agvance database. There is no live connection between the scale computer and the Agvance database in the office.



Pros

- The scale machine does not need to be connected to the internet, so this can be a good choice for scale sites where there are no good high-speed internet or cell network options
- Speed is not usually an issue in this configuration; Scale Tickets will print and save quickly, and Agvance can continuously read weights with no performance degradation
- The scale machine will be operational even if the server or network on the office is down

Cons

- Disconnected configurations are only an option for Grain Scale Interface users. The Agronomy Scale Interface is best used in a connected configuration.
- Since the scale machine works from a copy of the Agvance database, changes made in the office (new

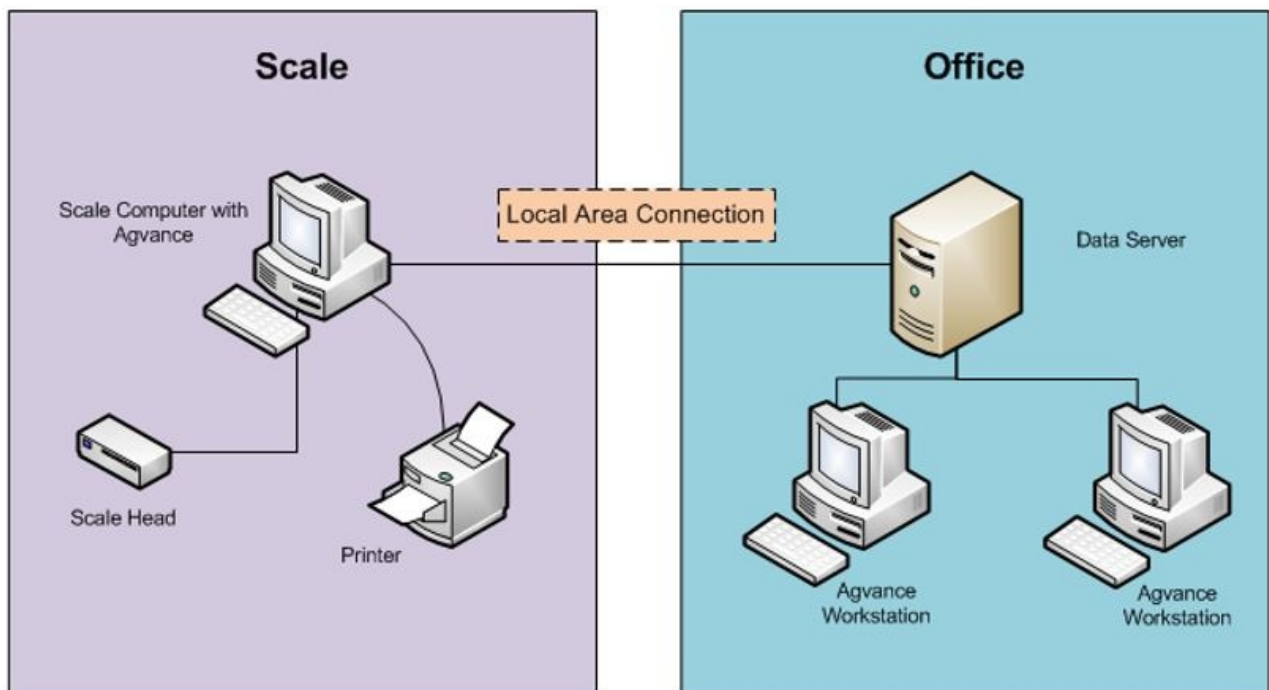
customers added, etc) are not immediately available on the scale machine. The data must be periodically refreshed.

- Scale Tickets are not immediately available in the office; they must be offloaded and imported.
- Very large Agvance data may require extra steps when refreshing the scale machines.
- The data on each scale machine must be individually backed up.
- Agvance must be kept up-to-date on the scale machines. If the scale machine doesn't have internet access, the Agvance install will need to be copied to a CD or flash drive and brought out to the scale site for each upgrade

Local Area Network

In this configuration, the scale computer is continuously connected to the data server in the home office through the local area network. The scale computer is either wired to the home office network with Ethernet or fiber optic cable, or connected through a wireless network adapter and access point.

Agvance is installed on the scale machine, and a network drive is mapped to the data server in the office.



Note: Do not attempt this arrangement with a VPN over a high-speed internet connection. LAN networks typically operate at 100mpbs or more, and most internet connections cannot match that speed. Performance will be severely degraded.

Pros

- Speed is not usually an issue in this configuration; Scale Tickets will print and save quickly, and Agvance can continuously read weights with no performance degradation
- The connection to the Agvance data is live, so the scale machine has immediate access to any changes made in the office and Scale Tickets are immediately available in the office for processing

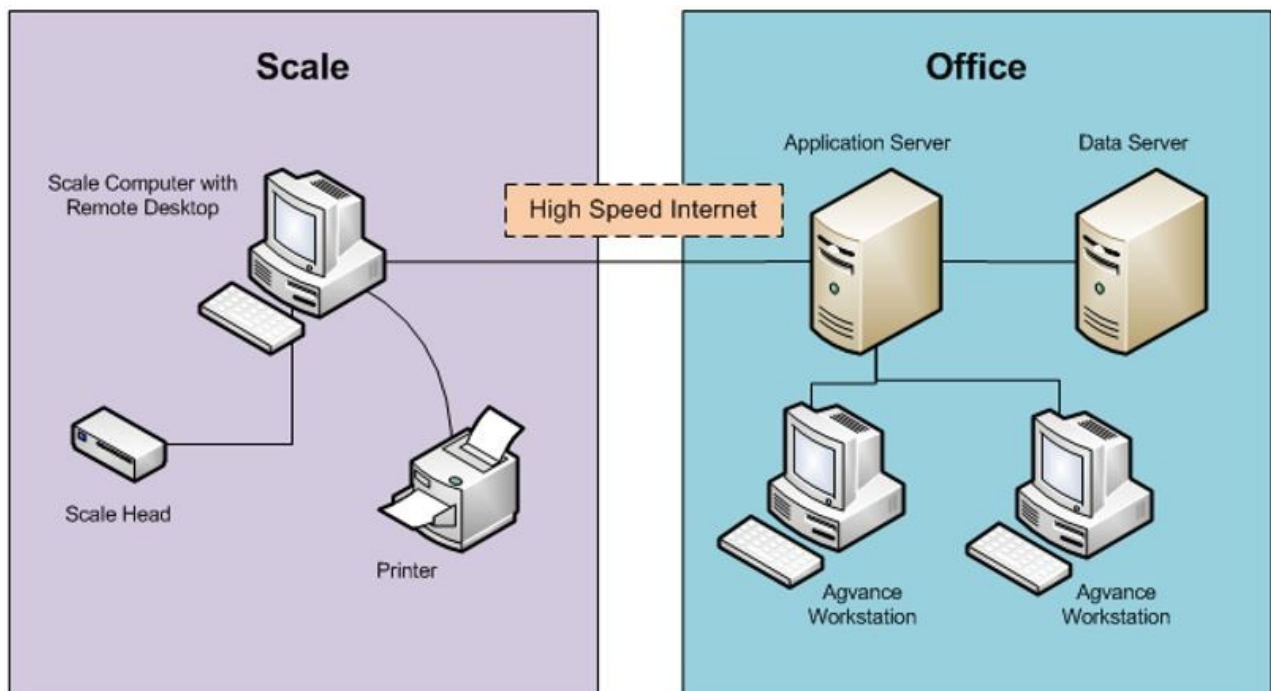
Cons

- Distance is typically a factor when setting up a local area network. If the scale is very far away from the office it may be difficult to run cables or get a good wireless network signal
- Agvance updates must be run on the scale computer to keep it up-to-date. It should be easier than in a disconnected scenario because the scale computer should have Internet access to download the updates
- If the server or network in the office goes down, the Scale Interface will be down, too.

Terminal Services

If the scale machine has a stable high-speed Internet connection (cable, DSL, cell network air card, etc) the scale computer can run Agvance through Remote Desktop or Citrix. The Agvance program files are installed on the application server in the home office, and users initiate a remote session on the scale computer to run the Agronomy or Grain Scale Interface.

The computers in the office may be running Agvance locally or also accessing the application server.



Pros

- The connection to the Agvance data is live, so the scale machine has immediate access to any changes made in the office and Scale Tickets are immediately available in the office for processing
- Agvance is not installed on the scale computer, so no upgrades have to be done at the scale site, and the scale computers do not need to meet Agvance's hardware requirements
- Remote sessions can accommodate slower connection speeds (dial-up is not recommended)

Cons

- There is some overhead involved in setting up an application server if one is not already in place
- A stable internet connection is required, which is not achievable in all locations
- Printers and COM ports in a remote connectivity environment can be tricky to set up
- Continuous reading of weights can cause performance issues on the application server; the *Capture on Click* preference is recommended. See detailed explanation below.
- If the internet connection at the scale site or office goes down, or a server or the network at the office goes down, the Scale Interface will be unavailable
- Profiles must be carefully managed in server farm situations to make sure scale settings are available on all servers

Terminal Services - Special Scale Read Situations

In a disconnected or LAN environment, weights can be read into Agvance continuously and displayed in the scale interface, or the user can turn on the *Capture on Click* preference and watch the scale head display instead. Neither option has much impact on performance.

In a terminal services environment, continuous reading of weights from the scale head can cause noticeable performance issues both for the Scale Interface user and other users running Agvance on that application server, especially if that server is supporting several scale users. How this is handled depends on whether the scale users can see the scale head display.

Scale Head Visible

If the user can easily see the scale head, the best option is for the user to turn on the *Capture on Click* preference. The user will then watch weight on the scale head and click in the *Weight* field when it's ready to capture. Since Agvance only communicates with the scale when the user captures a weight, the application server doesn't get overwhelmed with activity.

Scale Head Not Visible

In some environments, the scale head is located in another room or outside, or is otherwise not visible to the Agvance Scale Interface user. In this case *Capture on Click* can't be turned on because the user has no way to see when to capture the weight.

If a company in this situation is experiencing performance issues on the application server, they will need to work with SSI support and their hardware tech to come up with the best workaround. This might involve upgrades to the application server or isolating Scale Interface users on their own server.