



# Hardware Specifications



AVIMARK®

# TABLE OF CONTENTS

- Hardware Specifications..... 1**
  
- Introduction ..... 3**
  - Paperless Practices .....3
  - Workstation Operating Systems .....3
  - Avimark Site .....4
  
- Server Specifications ..... 4**
  - 15+ User Peer / Dedicated Server Or Site Server Specifications .....4
  - 8 – 14 User Peer / Dedicated Server Specifications .....5
  - 1 – 7 User Non-Dedicated Server Specifications .....5
  - Dragonfly Server .....6
  - Legacy Server Operating Systems .....6
  - Standard Workstation Specifications.....7
  - Standard Laptop Specifications .....7
  - Tablet Specifications.....8
  - Printers.....8
  - Additional Items .....9
  
- Wireless and Avimark..... 10**

## Introduction

Avimark hardware standards are determined by evaluating currently available hardware. We've provided two options for each hardware standard—"Good" and "Best". Good hardware will get you through the immediate future. Best hardware will be more likely to last longer in to the future. Covetrus® reserves the right to modify or change the recommended hardware specifications at any time without prior notice.

Covetrus recommends business-class computers and printers. Covetrus Hardware offers approved and tested models. Discount store, home quality and (non-professional) custom-built machines are not recommended. Before making the decision to buy a custom-built machine from a non-commercial company, please ensure they are properly certified and that they use only the highest quality, business class components.

Using home based components is highly discouraged. Purchasing business class machines will increase reliability, performance and productivity within your office. Covetrus cannot reasonably guarantee compatibility with every printer brand and model. Please consult with our Hardware Sales Team for information.

## Paperless Practices

The hardware specifications for new servers and workstations, as outlined in this document, provides enough space to store attachments and photos for those practices who are paperless or plan to go paperless in the near future.

## Workstation Operating Systems

Windows® 11 Professional (64-bit) is the operating system currently being installed on new workstations. Avimark should only be installed on a Microsoft operating system that is receiving security updates. For more information about Workstation Specifications, refer to [page 7](#).



**Covetrus does not support any operating system, such as Windows XP, Windows 7, Windows 8/8.1, Windows 10 or any product not supported by Microsoft®. To find out if your operating system is supported by Microsoft, visit: <https://support.microsoft.com/en-us/lifecycle/search>.**

# AVIMARK HARDWARE SPECIFICATIONS

## Avimark Site

The Site feature using Terminal Services will require the use of TCP/IP network ready printers or TCP/IP Print Server devices. Avimark Support does not provide technical support for Microsoft products. Setup and troubleshooting of Terminal Services is the sole responsibility of the installing technician or the clinic that chooses to use Terminal Services. The total number of workstations (at all sites) connecting to the terminal server will determine the total amount of installed RAM.

Please consult with a reputable Certified Terminal Server technician in your area. When using any Windows Server version, please ensure the DNS Service is set up correctly. Failure to do so will result in severe performance loss on your network.

## Server Specifications

### 15+ User Peer / Dedicated Server Or Site Server Specifications

	Good	Best
Processor	Single Intel® Xeon® E-2244G	Single Intel® Xeon®E-2356G
RAM	64GB DDR4-2400 ECC UDIMM	128GB DDR4-3200 ECC UDIMM
Hard Disk	2x 250GB SATA SSD RAID1 and 2x 1 TB SATA SSD RAID1	4 x 2TB RAID 5 w/ PCIe RAID Card and Data Cache Protection
Optical Drive	DVD RW	DVD RW
Network Adapter	Dual Gigabit Ethernet Paired	Dual Gigabit Ethernet Paired
Monitor	19" LCD/LED (or larger)	19" LCD/LED (or larger)
USB	2 USB 3.0 and 4 USB 2.0	2 USB 3.2 Gen 1 and 4 USB 2.0
Operating Systems	Windows 2019 Standard	Windows 2022 Standard
Input Devices	USB Keyboard and Mouse	USB Keyboard and Mouse
Video	On Processor UHD P630 w/VGA port	On Processor UHD P750 w/VGA port

# AVIMARK HARDWARE SPECIFICATIONS

## 8 – 14 User Peer / Dedicated Server Specifications

	Good	Best
Processor	Single Intel Xeon E-2244G	Single Intel Xeon E-2356G
RAM	64GB DDR4-2400 ECC UDMM	64GB DDR4-3200 ECC UDIMM
Hard Disk	2 x 960GB SATA III 6Gb/s	2x 480GB SATA III SSD RAID1 and 2x 960GB SATA III SSD RAID1
Optical Drive	DVD RW	DVD RW
Network Adapter	Dual Gigabit Ethernet Paired	Dual Gigabit Ethernet Paired
Monitor	19" LCD/LED (or larger)	19" LCD/LED (or larger)
USB	2 USB 3.0 and 4 USB 2.0	2 USB 3.2 Gen 1 and 4 USB 2.0
Operating Systems	Windows 2019 Standard	Windows 2022 Standard
Input Devices	USB Keyboard and Mouse	USB Keyboard and Mouse
Video	On Processor UHD P630 w/VGA port	On Processor UHD Graphics P750 w/VGA port

## 1 – 7 User Non-Dedicated Server Specifications

	Good	Best
Processor	Intel i7 10700 w/ TPM Motherboard	Intel i7 12700 w/ TPM Motherboard
RAM	32GB DDR4-2400 Non-ECC	128GB DDR5-5600 non-ECC UDIMM
Hard Disk	2 - 1TB SATA III 6Gb/s SSD - RAID 1	2 - 2TB SATA III 6Gb/s SSD - RAID 1
Optical Drive	DVD RW	DVD RW
Network Adapter Ethernet	Single Gigabit Ethernet	Single Gigabit Ethernet
Monitor	19" LCD/LED (or larger)	19" LCD/LED (or larger)

(Continued)

# AVIMARK HARDWARE SPECIFICATIONS

USB	2 USB 3.0 and 4 USB 2.0	2 USB 3.2 Gen 1 and 4 USB 2.0
Operating Systems	Windows 11 Pro (64-bit)	Windows 11 Pro (64-bit)
Input Devices	USB Keyboard and Mouse	USB Keyboard and Mouse

## Dragonfly Server

Processor	Intel i7-12700 w/ TPM
RAM	64GB DDR5-5600
Hard Disk	2 x 2TB SSD RAID 1
Optical Drive	DVD RW
Network Adapter Ethernet	Single Gigabit Ethernet
Monitor	19" LCD/LED (or larger)
Video Adapter	1920 x 1080 or better w/VGA port
Sound	On motherboard
USB	2 USB 3.2 Gen 1 and 4 USB 2.0
Operating Systems	Windows 11 Pro (64)
Input Devices	USB Keyboard and Mouse

## Legacy Server Operating Systems

Any client running Microsoft Windows Server 2012R2 or older will not be able to purchase any Microsoft server related licensing; they must be running Microsoft Windows Server 2016 / 2019 (provided by us) to purchase additional Windows CALS and Terminal Services.

# AVIMARK HARDWARE SPECIFICATIONS

## Standard Workstation Specifications

	Good	Best
Processor	i3-9th Gen w/ TPM Motherboard	i5-12th Gen w/ TPM Motherboard
RAM	8GB DDR4-2400	16GB DDR5-5600
Hard Disk	250GB SATA III 6Gb/s SSD	256GB NVMe stick
Network Adapter Ethernet	Gigabit Ethernet	Gigabit Ethernet
Monitor	22" LCD/LED (or larger)	22" LCD/LED (or larger)
USB	2 USB 3.0 and 4 USB 2.0	2 USB 3.2 Gen 1 and 4 USB 2.0
Operating Systems)	Windows 11 Pro (64-bit)	Windows 11 Pro (64-bit)
Input Devices	USB Keyboard and Mouse	USB Keyboard and Mouse

## Standard Laptop Specifications

	Good	Best
Processor	i5-9th Gen w/ TPM Motherboard	i5-12th Gen w/ TPM Motherboard
RAM	8GB DDR4-2400	16GB DDR4-3200
Hard Disk	250GB SATA III 6Gb/s SSD	256GB NVMe stick
Network Adapter Ethernet	Gigabit Ethernet	Gigabit Ethernet
Monitor	15.6" Widescreen	15.6" Widescreen
USB	2 USB 2.0 and 2 USB 3.0	1 USB 2.0, 2 USB 3.1
Operating Systems (32/64-bit)	Windows 11 Pro (64-bit)	Windows 11 Pro (64-bit)
Wireless Network Adapter	802.11 ac	802.11ax

# AVIMARK HARDWARE SPECIFICATIONS

Tablet Specifications	
Processor	i3 12th Gen or higher
RAM	4 GB
Hard Disk	128GB NVMe
Network Adapter Ethernet 100/1000	802.11 ac
Screen Size	Touch Screen Tablet PC 12.1" or larger
USB	1 USB 2.0 and 1 USB 3.1 port
Operating Systems	Windows 11 (64-bit)
Input Devices	Keyboard / Stylus

## Tablet Limitations

Avimark will run on tablets, however, please note their limitations:

- The tablet must be a Windows tablet.
- Tablets will not work with APS due to credit card machines.
- Avimark cannot be zoomed in to make it larger on the screen. Therefore, Avimark will appear very small on a tablet and this cannot be changed.

Printers	
Monochrome & Color Laser Printers	Any laser printer that offers a PCL6 or PCL5E driver compatible with supported Microsoft operating systems.
Label Printers	<ul style="list-style-type: none"><li>• DYMO Label Writer 450 and 550* Models. Standard - Turbo - Twin Turbo *DYMO labels are required with the 550 model</li><li>• Brother QL-500 &amp; QL-700</li><li>• Zebra ZD411(USB only and 203dpi only)</li></ul>



# AVIMARK HARDWARE SPECIFICATIONS

Additional Items	
IP Printers	An IP printer is a standalone device that interfaces directly between a printer and the network.
Anti-virus	We do NOT recommend any type of security suite or security package containing more than just anti-virus. We do not recommend ANY SPECIFIC anti-virus program. As long as the anti-virus you choose has the ability to add exceptions and does not contain a software firewall.
Digital Camera	Most digital cameras today use a WIA driver to allow interaction with the camera from third party software. The new Image Editor will now function with both Twain and WIA drivers, but WIA allows for a more detailed interaction with digital cameras from Avimark.
Scanner	With the enhanced Image Editor, Twain compliancy is not a mandatory requirement but is still an option.
Office Software	<p>Microsoft Word versions 2021, 2019, 2016</p> <p>Microsoft Excel versions 2021, 2019, 2016</p> <p>Office 365 - Office 365 does work with Avimark; however, a copy of Word must be installed locally on the workstation and documents must reside in a shared location for all computers to access them.</p> <p>Avimark only supports versions of Microsoft Office licensed for commercial use. LibreOffice offers very limited functionality with Avimark.</p>
Data Backup Software	Avimark Data Backup, an automatic online backup service. Call (855) 478-7920 or email <a href="mailto:Solutions.GSS.NA@Covetrus.com">Solutions.GSS.NA@Covetrus.com</a> for more details.
Backup Hardware	<ul style="list-style-type: none"> <li>• Covetrus Data Backup</li> <li>• DVD RW 22X or higher</li> <li>• USB Flash Drive 64 GB or higher</li> <li>• External daily/data and at least one (ideally two) full system state image BU HDD</li> </ul>
Uninterruptable Power Supply (UPS)	1500VA\1000 with 4 battery supported ports and 4 surge ports
Network-Wired	Gigabit Switch connected with CAT5E or CAT6 cable and patch cables. Network hubs are NOT recommended.
Network-Wireless	Wireless Standard IEEE 802.11 AC/AX

## Wireless and Avimark

Avimark now supports running its software on a wireless platform although it is not recommended for optimal performance. When it comes to using wireless laptops or tablets, there have been vast improvements in wireless technology making wireless networking a lot more stable and reliable. Wireless performance depends on the practice environment (Wireless interference reference: <https://www.actiontec.com/wifihelp/wifinetworking/interference-affecting-wireless-network/>). Please use the standards for an 802.11N Network. There are a few requirements for the wireless to work:

1. You must run Avimark in Client/Server mode. This allows information to travel faster across the network and bypasses the traditional Microsoft data exchange and sends over smaller packets of information ensuring that it is moving faster so that you don't see slowdown with the laptop or tablet.
2. We recommend that you have a good business class wireless access point/router. Preferably a dual band wireless AC/AX or Wi-fi 6 router. These routers broadcast a strong signal and have the least amount of interference from office equipment and other wireless devices running.
3. You will need a wireless AC network card in the laptop, tablet, or workstation to ensure the greatest speed. Wireless routers should be rated for 802.11AC with a minimum rating of AC1700. **Note:** It is not recommended to use wireless on desktops. Only laptops and tablets.
4. You will need to check all areas in the clinic that you plan to use the wireless and make sure that you have a strong signal, the stronger the signal, the faster the performance. You can check this with any wireless device. In those areas where the signal isn't as strong, you can get the wireless AC dual band range extenders and strategically place them in the low signal areas.
5. Any components running wirelessly on the network must meet our hardware requirements for Avimark whether it is a tablet (Windows-based) or laptop.
6. Any wireless routers that are in use for the wireless network must meet our minimum requirements for speed for Avimark.
7. Virtual servers have the same hardware requirements as the server recommendations beginning on [page 4](#) of this document. The hard disk speed being slower on the virtual machine is the largest negative impact to Avimark performance. The increased data redundancy RAID 1 or RAID 5 offer may impact overall performance slightly. The use of spinning hard drives with high data transfer rates vs. solid state drives should be considered. Your hardware sales professional will be able to advise you on the best system build for your operational needs.