



# Avid NEXIS® ReadMe

Version 2022.9.0

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## Important Information

Avid recommends that you read all the information in this ReadMe file thoroughly before installing software or attempting to use the Avid NEXIS system. This ReadMe provides information that is not in the other Avid NEXIS documentation. This ReadMe is cumulative. The versions covered in this document include all the functionality and bug fixes of the previous versions, which run on Avid NEXIS infrastructures.

This ReadMe provides hardware and software requirements, an overview of the major features of this release, and limitations and known issues. See the appropriate *Avid NEXIS Setup Guide* for information on physical connection of the system and loading the system and client software. You can access the documentation, including previous versions of the ReadMe, from the [Avid NEXIS Knowledge Base](#).



*For information about Avid's security recommendations specific to Avid products, and our responses to current world-wide security issues, see [Avid Security Guidelines and Best Practices for Dealing with Virus Threats](#).*

For compatibility with other Avid products, see the Knowledge Base page for [Avid Audio and Video Compatibility Charts](#).



*Avid recommends that you purchase installation services with your Avid NEXIS system.*

## Revision History

Date	Release	Changes Made
10/19/2022	2022.9	See <a href="#">“What’s New in Avid NEXIS v.2022.9”</a> on page 5
07/19/2022	2022.5.0	Updated the Aggregate Throughput tables in <a href="#">“System Performance (On-Premises)”</a> on page 13
07/12/2022	2022.5.0	See <a href="#">“What’s New in Avid NEXIS v2022.5.0 – Revised Sept 2022”</a> on page 7

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# Contents

- Accessing the Online Documentation . . . . . 3
- If You Need Help . . . . . 3
- Avid Training Services . . . . . 3
- Recommended and Required Releases . . . . . 4
- What’s New in Avid NEXIS v.2022.9 . . . . . 5
- What’s New in Avid NEXIS v2022.5.0 – Revised Sept 2022 . . . . . 7
- Supported Upgrade Paths . . . . . 10
- System Director and Client Version Compatibility . . . . . 10
- System Configuration Limits . . . . . 11
- System Performance (On-Premises) . . . . . 13
- Hardware and Software Requirements . . . . . 17
- Switches, Adapters, and Drivers . . . . . 20
- Known Issues . . . . . 21
- Special Notes . . . . . 30
- Legal Notices . . . . . 31

# Accessing the Online Documentation

The Avid NEXIS documentation is accessible in PDF format from the [Avid NEXIS Knowledge Base](#).

## If You Need Help

If you are having trouble using your Avid product:

1. Retry the action, carefully following the instructions given for that task in this guide. It is especially important to check each step of your workflow.
2. Check the documentation that came with your Avid application or your hardware for maintenance or hardware-related issues.
3. Visit the online Knowledge Base at [www.avid.com/US/support](http://www.avid.com/US/support). Online services are available 24 hours per day, 7 days per week. Search this online Knowledge Base to find answers, to view error messages, to access troubleshooting tips, to download updates, and to read or join online message-board discussions.

## Avid Training Services

Avid makes lifelong learning, career advancement, and personal development easy and convenient. Avid understands that the knowledge you need to differentiate yourself is always changing, and Avid continually updates course content and offers new training delivery methods that accommodate your pressured and competitive work environment.



*Avid NEXIS Enterprise customers can access online training from the following URL: [How to Activate Avid NEXIS Enterprise Training](#)*

For information on courses/schedules, training centers, certifications, courseware, and books, please visit [www.avid.com/US/support](http://www.avid.com/US/support) and follow the Training links, or call Avid Sales at 800-949-AVID (800-949-2843).

# Recommended and Required Releases

## Avid NEXIS System and Client Releases

The newest release is always recommended. The following Avid NEXIS | FS releases are either recommended or required in the cases listed below. Reconcile with any patches since last release.



*Avid NEXIS system (server) can be updated before the clients to allow server-only fixes to be deployed faster. We recommend upgrading clients as soon as possible thereafter.*

Server	Client	Guidance
2022.9	2022.9	<p><b>Recommended for all Avid NEXIS systems and clients.</b></p> <p>Licensing improvements and updates</p> <p>Renamed Avid NEXIS   VFS Gateway, and added support for CentOS 7.9; fixed a Samba vulnerability</p> <p>Increased user group membership limit</p> <p>Addresses security issues</p>
2022.5.0	2022.5.0	<p><b>Update July 2022: Required for all systems that include an Avid NEXIS F-Series engine or Avid NEXIS   PRO+;</b> see <a href="#">“What’s New in Avid NEXIS v2022.5.0 – Revised Sept 2022” on page 7</a></p> <p><b>Recommended for all Avid NEXIS systems and clients. Required for all systems using subscriptions, and clients running macOS® 12 (Monterey) or Windows® 11.</b></p>
2021.12.1	2021.12.1	<p><b>Required minimum release for:</b></p> <ul style="list-style-type: none"> <li>• All clients using the Remote Avid NEXIS setting</li> <li>• All systems, for stability and disk performance issues (fixed in v2021.12.0)</li> <li>• All systems with 10TB or larger HDD drives</li> </ul> <p> <i>LDAP authentication using DIGEST-MD5 is no longer recommended. Avid supports TLS version 1.2, and strongly recommends that you enable TLS on the LDAP Domain controllers in your environment.</i></p>
2021.8.x	2021.8.x	<b>No longer recommended — Upgrade as soon as possible.</b>
2021.5.0	2021.5.1 <sup>a</sup>	<b>Supported; minimum version for all systems that do not include 10TB or larger HDD drives.</b>
---	2021.3.x	Avid NEXIS Client version recommended for MediaCentral   Production Management (Interplay) servers, including Media Indexer.

Other Avid NEXIS releases are supported but not recommended due to disk issues resolved in recent releases. Customers should plan to upgrade as soon as possible.

a. Avid NEXIS Client version 2021.5.0 is not recommended for Windows clients due to fixes in later releases.

## Avid NEXIS Version Downgrades

On Avid NEXIS systems, installing an older version is not supported and can result in unforeseen consequences, up to and including data loss.

## USM Firmware Releases

The USM firmware package is a bundle of firmware for the hardware components in an Avid NEXIS, such as the power supply units, Controllers, and the BMC. Certain USM firmware versions are supported only with certain Avid NEXIS versions; see the following table for details.

USM upgrades are currently performed remotely by Avid. Contact Avid Global Customer Services for details.

USM Firmware Package Version <sup>a</sup>	BMC version <sup>b</sup>	Minimum Avid NEXIS Version Required
USM 1.37/1.37a	0.01.003c	Avid NEXIS 2019.2 through 2022.9, on Avid NEXIS Enterprise, Avid NEXIS   SDA, and Avid NEXIS   PRO 40TB with Controller 10  Can use USM 1.37 and 1.37a in the same Engine for models that support dual controllers
4.1.16d or 4.1.16g	2.0.0002 (for 4.1.16d) 2.00.1093c (for 4.1.16g)	Avid NEXIS 2019.2 through 2022.9, on Avid NEXIS   PRO 20TB and Avid NEXIS   PRO 40TB with purple fascia Controller
USM 1.32	0.01.0034	Avid NEXIS 7.9.1
USM 1.16	0.01.0013	Avid NEXIS 6.x

a. The USM version is shown on the Controllers page and the Engines page in the Management Console, as of Avid NEXIS version 2020.3.0. See the *Avid NEXIS Administration Guide* for details.

b. The BMC version is shown on the Controllers page in the Avid NEXIS Management Console.

## What's New in Avid NEXIS v.2022.9

Avid NEXIS version 2022.9 is a major release that introduces the following:

- New branding for Avid NEXIS | VFS Gateway; support for CentOS 7.9 on VFS Gateway VMs; fixed a security vulnerability
- Updates to Avid NEXIS | FLEX Subscription licensing
- Increased group membership for users, which can allow the use of Active Directory groups to manage Workspace permissions, by creating a read-only and read-write group for each Workspace.
- Bug fixes and improvements

### Product Renaming

This release renames Avid NEXIS | VFS Gateway (*formerly Avid NEXIS | Linux File Gateway*) and supports CentOS v7.9 on the virtual machine for the deployment.

In addition, Avid fixed a vulnerability in the Avid NEXIS | VFS Gateway for [CVE-2021-44142](#).

### Updates to Avid NEXIS | FLEX Subscription Licensing

This release simplifies the process of renewing or updating an existing license on a system. After updating to this version, you can update an existing license which automatically deactivates the current one and activates a new one.

The updated license can support the same Media Pack capacity and mirroring features that you already have but extend the term of subscription. Alternatively, the updated license can add more capacity or features, or extend the term of your subscription, or both.

The *Avid NEXIS Administration Guide* describes how to update a license. If your license expires before you can update it, contact Avid or your reseller for more information.

### Increased User Groups

This release raises the limit on the number of groups a user (Team user or non-Team user) can belong to from 15 to 71. See [“System Configuration Limits” on page 11](#).

### Server Fixes

Avid NEXIS version 2022.9 includes the following fixes to the Avid NEXIS server software:

- Several security fixes. Contact Avid or your reseller for more information.
- [SSENG-31632] After upgrading a system from version 2021.12.0 to 2021.12.1, the Engines page incorrectly reported that the Controllers had different memory sizes.
- [SSENG-31994] Enabled the Notifications service on Avid NEXIS | Cloud Storage.
- [SSENG-32169] The Avid NEXIS system stopped responding while creating Workspaces.
- [SSENG-32390] An incorrect “LACP degraded” error was displayed in the Management Console for Avid NEXIS | F5 Controllers with LACP enabled.
- [SSENG-32655] Could not change a Workspace (size, name) if the user attempting to change it belonged to a user group that had an ampersand character (&) in the group name (for example, Editors&Producers). The ampersand is a valid character in group names.
- [SSENG-32833] After an administrator deleted a Team, the Team name remained on the Teams page and the Storage Groups page did not recalculate and display the updated Team Reserved value.
- [SSENG-32839] Added the ability to shut down the Controller in Avid NEXIS | F2 and Avid NEXIS | PRO+.
- [SSENG-33122] In version 2022.5.0, the Management Interface port was not working correctly.
- [SSENG-33171] The Avid NEXIS system stopped responding when an existing file was extended in a Workspace tied to specific ingest workflow operations.
- [SSENG-33277] In version 2022.5.0, changes to the size of mirrored Workspaces were not calculated correctly, resulting in an incorrect “out of space” error.

### Client Fixes

Avid NEXIS version 2022.9 includes the following fixes to the Avid NEXIS Client software:

- [SSENG-23512, 32421] USB-C to 1Gb RJ45 Ethernet adapters did not work in an Avid NEXIS Client running macOS 10.15 (Catalina) and newer, which falsely reported the interface speed as zero Mbps.
- [SSENG-29643] In Avid NEXIS Client version 2021.5, an ingest operation could fail due to an incorrect return code.
- [SSENG-31070] In Avid NEXIS Client version 2021.8 and 2021.12, Adobe Premiere was unable to play back, save, or link media due to problems in the Avid NEXIS Client code for handling ‘file open’ and ‘file close’ operations for media with any shared parent folder or directory.

## What's New in Avid NEXIS v2022.5.0 – Revised Sept 2022

Avid NEXIS version 2022.5.0 **introduces a new hardware platform**, allows subscription licensing for your system, adds newer client operating systems, and includes other improvements and fixes.

### **JULY 12, 2022 – Introducing Avid NEXIS F-Series, Avid NEXIS | SDA+ and Avid NEXIS | PRO+**

Avid announces a new platform line for shared storage: The F-Series (Faster and more Flexible), which includes the following models:

- Avid NEXIS | F2, a 2U chassis with one Media Pack (compatible with Avid NEXIS | E2)
- Avid NEXIS | F2X, a 2U *expansion chassis* with one Media Pack and two I/O modules, but no Controllers. An expansion chassis pairs with an Avid NEXIS | F2, which together are compatible with Avid NEXIS | E4.
- Avid NEXIS | F5, a 5U chassis with up to eight Media Packs, for large-scale configurations (compatible with Avid NEXIS | E5)
- Avid NEXIS | F5 NL, a 5U chassis with up to eight Media Packs that connects to a 10GbE switch for nearline workflows (compatible with Avid NEXIS | E5 NL)
- Avid NEXIS | SDA+, a System Director Appliance that can manage provides higher scaling and enables engine protection
- Avid NEXIS | PRO+, a 2U chassis with one Media Pack, intended for small teams

These new models are the next generation of Avid NEXIS storage, and use a new Controller with faster performance. The new Controllers support the current 10GbE and 40GbE Ethernet connections, and add support for **25GbE** and **50GbE** Ethernet connections with a suitable switch.

**[Added September 2022]** This release also supports clients with 25GbE and 50GbE NICs. See the *Avid NEXIS Network and Switch Guide* for more information.

Avid NEXIS version 2022.5.0 supports the new models. After upgrading an existing system to version 2022.5.0, you can add Avid NEXIS F-Series Engines to the shared-storage system, and add Avid NEXIS | PRO+ to current Avid NEXIS | PRO configurations, to maximize your current infrastructure investment.

The *Avid NEXIS Administration Guide*, *Avid NEXIS Setup and Maintenance Guide*, and *Avid NEXIS Network and Switch Guide* have been updated to describe the new models, supported switches, and how to use them in a new or existing shared-storage system. See the [Avid NEXIS Documentation Knowledge Base page](#) for the latest version of these documents.

### **July 12, 2022 – Introducing Avid NEXIS | F-Series Licensing**

With Avid NEXIS F-Series, Avid introduces Avid NEXIS | F-Series Licensing, required to deploy any Avid NEXIS F-Series Engine, Avid NEXIS | SDA+, or Avid NEXIS | PRO+ in new or existing (Avid NEXIS E-series) configurations. The license includes a defined set of features on a system, including your choice of Protection Mode (Flexible or All-Mirror).

See the *Avid NEXIS Administration Guide* for more information about activating a license.

## Support for Avid NEXIS Subscriptions

Avid NEXIS 2022.5.0 includes system licensing to manage and control subscriptions for on-premises systems. Avid is introducing innovative commercial models as an alternative to the previous Integrated Solution (perpetual) capital expenditure (CapEx) model. Avid NEXIS subscription models are available now and include:

- Purchase of new systems — annual Avid NEXIS | Flex Software Subscription combine with a one-time, hardware-only purchase
- Crossgrade of current maintenance contract to subscription

Annual subscriptions offer the following advantages:

- Lower up-front investment
- Option to migrate to Avid NEXIS | Cloud Storage
- Predictable recurring costs (operating expenditure, or OpEx)

You can activate a license either online (the system is connected to a network with Internet access) or offline. To activate a license online, the system must have DNS configured. See the *Avid NEXIS Administration Guide* for information on activating a license.

For details about purchasing a license, contact your Avid supplier.

## Improvements to Remote Client Connection Workflows

Avid NEXIS version 2022.5.0 adds several improvements for Avid NEXIS clients connecting to a remote Avid NEXIS system:

- Avid NEXIS 1GbE Clients running macOS 11.x (Big Sur) and later can connect to a remote Avid NEXIS system through a VPN (such as Cisco) and run CrowdStrike Endpoint Protection, with filters enabled. (Windows 1GbE client support for remote Avid NEXIS systems was introduced in Avid NEXIS v2021.8.0.)
- Avid NEXIS Client support for OpenVPN to connect to a remote Avid NEXIS system.

## Client Operating System Support

Avid NEXIS version 2022.5.0 adds support for the following operating systems on clients:

- Windows 11; see [“Supported Client Operating Systems” on page 18](#) for more information
- Windows 10 build 21H2 on Avid NEXIS clients; see [“Supported Client Operating Systems” on page 18](#) for more information
- macOS 12 (Monterey) on Avid NEXIS clients; see [“Supported Client Operating Systems” on page 18](#) for more information



## Server Fixes

Avid NEXIS version 2022.5.0 includes the following fixes to Avid NEXIS software (on-premises systems).

- [Server and Client] Investigated all Avid NEXIS code for vulnerability to the Apache Log4j2 issue (see [CVE-2021-44832](#)). **Avid has determined that Avid NEXIS software does not use the affected Java library and is therefore not affected by this issue.** For information about other Avid products, see the [Avid Technology Log4j Security Assessment](#).
- Closed a security hole in the Avid NEXIS kernel that allowed unprivileged users to gain root privileges to the system (see [CVE-2022-0847](#)).
- [SSENG-31159] The Log Aggregation tool was not correctly collecting the BMC log file.
- [SSENG-31167, 31822] On some Avid NEXIS systems, the fan speed was incorrectly reported and displayed.
- [SSENG-31509] On some Avid NEXIS | PRO systems, the hardware information did not display in the Management Console.
- [SSENG-31668] On some systems with mirrored Workspaces, continuous updates to the same area of a file over an extended period of time could lead to timing problems resulting in a forced stop of a particular Media Pack.
- [SSENG-31977] On the User Groups page in the Workspace Access area, when selecting all Workspaces using the All button, a symbol was displayed instead of the number of selected Workspaces. Also corrected a spelling error.

## Cloud Fixes

Avid NEXIS version 2022.5.0 includes the following fix for the Avid NEXIS | Cloud Storage solution.

- [SSENG-31633] Could not deploy new Avid NEXIS | Cloud Storage systems.
- [SSENG-31661] Improved performance when deleting files in Avid NEXIS | Cloud Storage.
- [SSENG-31743] Improved performance for exporting Adobe Premiere sequences to a Workspace (both on-premises and Cloud).
- [SSENG-31755] On Avid NEXIS | Cloud Storage, the OAM service on the NEXIS client could crash and restart, causing slow or failed reads and writes.

## Client Fixes [Updated July 27, 2022]

Avid NEXIS version 2022.5.0 includes the following fixes to the Avid NEXIS software running on clients (Client Manager).

- [SSENG-29673] Avid NEXIS 1GbE Clients running macOS 11.x (Big Sur) and later can now use content network filters (such as CrowdStrike Falcon Endpoint Protection Platform) that previously prevented the client from connecting to an Avid NEXIS System.
- [SSENG-31258] Clients using Cisco AnyConnect and macOS 11.x (Big Sur) and later experienced disruptions caused by content filters. Previously, on those clients we advised disabling the system extension and instead running the legacy kernel extension, as documented in Section 4 in the [AnyConnect macOS 11 Big Sur Advisory](#).
- [SSENG-30847] In some circumstances, Mac computers that use the Apple® M1, M1 Pro, or M1 Max processors could experience a system panic.


- [SSENG-31468 and SSENG-31432] In some workflows, Avid NEXIS clients running CentOS became unresponsive.
- [\*SSENG-31292--Update] After upgrading a client from version 2021.3 to 2021.12, the Database Backup utility stopped properly handling pathnames that ended with a slash (\), which is a valid character in a path name.

## Supported Upgrade Paths

You can upgrade any Avid NEXIS system according to the upgrade path described next. For instructions on how to upgrade an Engine or System Director Appliance, see the *Avid NEXIS Setup and Maintenance Guide*, or the *Avid NEXIS Administration Guide*.

### Avid NEXIS Upgrade Paths

All Avid NEXIS systems can upgrade to the following versions.

Current Avid NEXIS Version <sup>a</sup>	Can Upgrade Directly To
On-premises systems: 6.x, 7.x, 2018.x, 2019.x, 2020.x <sup>b</sup> , 2021.3.x, 2021.5.x, 2021.8.x, 2021.12.x, 2022.5.0	2022.9.0
Avid NEXIS   Cloud Storage systems: 2021.3.1 and newer	2022.9.0
 <i>To upgrade Avid NEXIS   Cloud Storage 2020.7.x and earlier to Avid NEXIS   FS version 2021.x, please contact Avid Customer Service or your sales representative to assist with the upgrade.</i>	


- ISIS 1000 systems running version 6.x or 7.x should be upgraded directly to 2019.12.1 or newer, not to an interim version.
- Avid identified an issue when upgrading from 2020.3.0 directly to 2020.7.0. This specific upgrade path is not supported. If you have already upgraded from 2020.3.0 to 2020.7.0 and encountered a problem, contact Avid Customer Care.

## System Director and Client Version Compatibility

The Avid NEXIS Client software works with the following versions:

Client Version	Shared-Storage System Version
2019.x and newer <sup>a</sup>	Avid NEXIS version 2019.x <sup>b</sup> and newer
2019.x, <b>2020.7.x<sup>c</sup></b>	Avid ISIS version 4.7.5 and newer (minimum v4.7.9 recommended)

- If using the Remote Avid NEXIS setting in the Client Manager, use Avid NEXIS Client version 2022.9.0 or newer, due to numerous fixes for remote connections.
- Since Avid NEXIS v2019.2, the Shared Storage system can have a newer version than the client to allow deployment of server-only fixes. Avid recommends upgrading all clients to the same version as soon as practical.
- Avid NEXIS v2020.7.x is the last release stream to support client connections to Avid ISIS v4.7.9 and newer. Workflows that require connection to both ISIS and Avid NEXIS can continue to use client version 2020.7.x until further notice.

 *The Avid NEXIS Toolbox and other utilities are tested and known to work only against a System Director of the same version. If you want to install two different versions of the Toolbox on the same system, install one of them into a directory other than the default.*

## Compatibility with Recent Avid Product Releases


Avid NEXIS version 2022.9.0 is broadly compatible with other Avid and third-party products. (See the [Avid Audio and Video Compatibility Charts Knowledge Base](#) page for details about all Avid tools and older releases.)

The following table is a quick reference for the currently supported Avid products and versions.

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### Avid NEXIS Version 2022.9.0 (Server/System Director) Works With:

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Avid NEXIS Clients	2019.x and newer
MediaCentral   Cloud UX	2019.x and newer
MediaCentral   Production Management	2018.6 and newer
MediaCentral   Stream	2020.12 - 2022.3 (with Avid NEXIS Client 2021.12 and newer)
Media Composer	2019.12.5 and newer
Pro Tools	2021.R1 (v2021.3), 2021.10, 2021.12, 2022.4, 2022.5–2022.9
FastServe	Ingest: 2022.3 Playout: 2022.2  <i>Use Avid NEXIS v2019.4.x with FastServe v2018.3.2–2018.3.4, 2019.1–2019.12.1, and 2020.4.x.</i>
Interplay Production (Legacy)	3.5 - 3.8, 2017.2

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## System Configuration Limits

The following table lists the configuration limits for on-premises and Avid NEXIS | Cloud Storage systems in the current release.

 *An Avid NEXIS | Cloudspaces subscription (available in v2019.4.0 and newer) is part of an on-premises Avid NEXIS system.*



## On-Premises Limits

On-Premises Systems Limits		
Item	Embedded System Director <sup>a</sup>	System Director Appliance
Media Packs (per system)	4, in any combination of Scale-Out and High Performance, optionally including 1 Avid NEXIS   Cloudspaces Media Pack	8 in a High Performance Storage Group 24 total (optionally including up to 8 in a High Performance Storage Group) with the Avid NEXIS   VFS Standard or Avid NEXIS   FS Extended (Standard) license and any combination of Avid NEXIS Engines 64 total (optionally including up to 8 in a High Performance Storage Group) with the Avid NEXIS   VFS Advanced or Avid NEXIS   FS Advanced license, and any combination of Avid NEXIS Engines
Media Packs (per Engine)	1 in all 2U chassis (Avid NEXIS   E2, Avid NEXIS   E2 All-Mirror, Avid NEXIS   E2 SSD, Avid NEXIS   PRO, Avid NEXIS   F2, Avid NEXIS   F2X, Avid NEXIS   PRO+) 1–2 in all 4U chassis (Avid NEXIS   E4, Avid NEXIS   E4 All-Mirror) 4–8 in all 5U chassis (Avid NEXIS   E5, Avid NEXIS   E5 NL, Avid NEXIS   E5 All-Mirror, Avid NEXIS   F5, Avid NEXIS   F5 NL)	
Storage Groups	4, optionally including one High Performance Storage Group and one Avid NEXIS   Cloudspaces Storage Group	32, optionally including one High Performance Storage Group and one Avid NEXIS   Cloudspaces Storage Group
Workspaces	1024	3072
Teams <sup>b</sup>	19	80
Team Quotas	Up to 255 Team Quotas per system (Teams have only one quota <i>per</i> Storage Group — which can be increased or decreased — but can have a quota in multiple Storage Groups)	
Team Admin Users	No enforced limit	
Users (Clients)	5640	
User Groups	1028, any combination of non-Team and Team User Groups	
Group Memberships per User	<ul style="list-style-type: none"> <li>• Non-Team users can belong to 71 non-Team user groups</li> <li>• Team users can belong to 71 user groups <i>in the same Team</i></li> </ul>	
Connected (Active) Clients	40 (Avid NEXIS E-Series/F-Series Engines) 30 (Avid NEXIS   PRO or Avid NEXIS   PRO+)	165 with Avid NEXIS   VFS Standard or Avid NEXIS   FS Extended (Standard) license 330 with Avid NEXIS   VFS Advanced or Avid NEXIS   FS Advanced license
	Up to 10 to a High Performance Storage Group (Avid strongly recommends no more than 10)	
Files and Folders	8 million (Avid NEXIS E-series/F-Series configurations) 3 million (Avid NEXIS   PRO/Avid NEXIS   PRO+ configurations)	28.4 million <sup>c</sup>
Files per folder	Avid recommends no more than 10,000 files per folder, particularly for Workspaces used by Avid MediaCentral   Production Management (formerly Avid Interplay   Production).	

On-Premises Systems Limits (Continued)		
Item	Embedded System Director <sup>a</sup>	System Director Appliance
Pathnames	Total bytes = 255 (Workspace name + path + filename).  <i>Unicode characters can be multi-byte.</i>	

- System Director service runs on an Engine in the configuration.
- Workspaces, Users, and User Groups for Teams count against the overall system limits.
- Actual limit depends on file name length. Limit assumes 67 ASCII characters (67 bytes). Longer average file names reduce the file count limit.

## Cloud System Limits

Avid NEXIS   Cloud Storage System Limits	
Item	Limit
Media Packs (per system)	1 (2PB capacity)
Storage Groups	1
Workspaces	3072
Teams	80  <i>Workspaces, users, and groups created by a Team count against the overall system limits.</i>
Team Quotas	Up to 255 Team Quotas per system (Teams have only one quota <i>per</i> Storage Group — which can be increased or decreased — but can have a quota in multiple Storage Groups)
Team Admin Users	No enforced limit
Users (Clients)	5640
User Groups	1028, any combination of non-Team and Team User Groups
Group Memberships per User	<ul style="list-style-type: none"> <li>Non-Team users can belong to 15 non-Team user groups</li> <li>Team users can belong to 15 user groups <i>in the same Team</i></li> </ul>
Connected (Active) Clients	330
Files and Folders	28.4 million <sup>a</sup>
Files per folder	Avid recommends no more than 10,000 files per folder, particularly for Workspaces used by Avid MediaCentral   Production Management (formerly Avid Interplay   Production).
Pathnames	Total bytes = 255 (Workspace name + path + filename).  <i>Unicode characters can be multi-byte.</i>

- Actual limit depends on file name length. Limit assumes 67 ASCII characters (67 bytes). Longer average file names reduce the file count limit.

## System Performance (On-Premises)

The nominal bandwidth rating for all-read workflows depends on the Engine type and Media Pack Bind Setting, as follows:

Bind Option	Bandwidth Rating (Nominal)	Supported On
Scale Out	400MB/sec	Avid NEXIS   PRO Avid NEXIS   E2, Avid NEXIS   E4, Avid NEXIS   E5 and their All-Mirror versions
	480MB/sec	Avid NEXIS   PRO+ Avid NEXIS   F2, Avid NEXIS   F2X, Avid NEXIS   F5
High Performance	600MB/sec	Avid NEXIS   PRO Avid NEXIS   E2, Avid NEXIS   E4
	700MB/sec	Avid NEXIS   PRO+ Avid NEXIS   F2, Avid NEXIS   F2X
SSD	3000MB/sec	Avid NEXIS   E2 SSD only

The actual write bandwidth depends on protection type. Aggregate bandwidth is therefore a function of protection type and the proportion of reads to writes in the workflow.

The following table provides data on the expected bandwidth for Avid NEXIS E-series and Avid NEXIS F-Series Engines (including Avid NEXIS | PRO and Avid NEXIS | PRO+) as an aggregate of all the Media Packs in a given Engine by protection type and R/W proportion per Media Pack.

To calculate total system performance, multiply these figures by the number of Media Packs in the Storage Group (assumes all the Media Packs in the Storage Group are in Avid NEXIS E-series Engines). A typical workflow is 80% reads and 20% writes.



*In a mixed configuration of Avid NEXIS E-series and Avid NEXIS F-Series Engines in a Storage Group, the throughput will be between the ratings for an all E-series or all F-series system.*

#### Avid NEXIS E-series: Aggregate Throughput per Media Pack by Performance Type (Bind Option), Workspace Protection, and Engine Protection, in MB/Sec

Scale-Out Performance <sup>a</sup>						
Read%	Write%	No Protection	One Disk	Two Disk	One Disk + Mirroring	Two Disk + Mirroring
100	0	400	400	400	400	400
90	10	400	395	390	356	348
80	20	400	390	381	320	308
70	30	400	386	372	291	276
60	40	400	381	364	267	250
50	50	400	376	356	246	229
Usable Storage		100%	89%	80%	44%	40%

High Performance <sup>b</sup>						
Read%	Write%	No Protection	One Disk	Two Disk	One Disk + Mirroring	Two Disk + Mirroring
100	0	600	600	600	NA	NA
90	10	600	593	585	NA	NA
80	20	600	585	571	NA	NA
70	30	600	578	558	NA	NA
60	40	600	571	545	NA	NA
50	50	600	565	533	NA	NA
Usable Storage		100%	89%	80%	NA	NA
SSD Performance <sup>c</sup>						
Read%	Write%	No Protection	One Disk	Two Disk	One Disk + Mirroring	Two Disk + Mirroring
100	0	3000	3000	3000	3000	3000
90	10	2857	2807	2759	2424	2353
80	20	2727	2637	2553	2034	1935
70	30	2609	2487	2376	1752	1644
60	40	2500	2353	2222	1538	1429
50	50	2400	2233	2087	1371	1263
Usable Storage		100%	89%	80%	44%	40%

- a. Scale-Out performance is available on all models except Avid NEXIS | E2 SSD and Avid NEXIS | E5 NL. Scale-Out is the best choice for Media Mirroring (not supported on Avid NEXIS | E5 NL or Avid NEXIS | PRO).
- b. Media Mirroring is not supported in High Performance Storage Groups.
- c. One-Disk and Two-Disk with Mirroring performance is based on 19.2TB Media Packs with Avid Part Number 7020-71306-01 and higher, or 38.4TB Media Packs. 960GB Media Packs might have lower performance numbers in mirror configurations.



*Linux 10GbE clients can experience lower throughput than Windows and macOS clients against both Avid NEXIS | PRO and Avid NEXIS | Enterprise Engines.*

#### Avid NEXIS F-Series: Aggregate Throughput per Media Pack by Performance Type (Bind Option), Workspace Protection, and Engine Protection, in MB/Sec

Scale-Out Performance <sup>a</sup>						
Read%	Write%	No Protection	One Disk	Two Disk	One Disk + Mirroring	Two Disk + Mirroring
100	0	480	480	480	480	480
90	10	480	474	468	427	417
80	20	480	468	457	384	369
70	30	480	463	447	349	331

60	40	480	457	436	320	300
50	50	480	452	427	295	274
Usable Storage		100%	89%	80%	44%	40%
<b>High Performance<sup>b</sup></b>						
<b>Read%</b>	<b>Write%</b>	<b>No Protection</b>	<b>One Disk</b>	<b>Two Disk</b>	<b>One Disk + Mirroring</b>	<b>Two Disk + Mirroring</b>
100%	0	700	700	700	NA	NA
90%	10	700	691	683	NA	NA
80%	20	700	683	667	NA	NA
70%	30	700	675	651	NA	NA
60%	40	700	667	636	NA	NA
50%	50%	700	659	622	NA	NA
Usable Storage		100%	89%	80%	NA	NA

- a. Scale-Out performance is available on all models except Avid NEXIS | F5 NL. Scale-Out is the best choice for Media Mirroring (not supported on Avid NEXIS | F5 NL or Avid NEXIS | PRO+).
- b. Media Mirroring is not supported in High Performance Storage Groups.

### Drive Rebuilds and System Performance

When a drive in a Media Pack fails, the data from that drive is rebuilt from the other drives in that Media Pack, and involves only those drives. During a rebuild, the Media Pack's performance rating drops by the rating of one drive (10%). With no I/O on the system, the fastest a drive can be rebuilt is also equal to the rating of one drive.

On a Media Pack that is under full load (at complete bandwidth capacity), the minimum repair rate is 512KB/s. As the drive is rebuilt it begins contributing to the overall Media Pack performance rate for both reads and writes, so during the rebuild, the rate gradually decreases.

Performance Type	Rebuild Rate (Media Pack at 100% capacity)	Estimated Rebuild Time
Avid NEXIS F-Series and Avid NEXIS   PRO+		
Scale-Out	48MB/sec (0.17TB/hour), or ~6 hr/TB	16TB Drive = 96 hours <sup>a</sup> 14TB Drive = 84 hours 10TB Drive = 60 hours 6TB Drive = 36 hours 4TB Drive = 24 hours
High	70MB/sec (0.25TB/hour) or ~4 hr/TB	14TB Drive = 56 hours 10TB Drive = 40 hours 6TB Drive = 24 hours 4TB Drive = 16 hours



Performance Type	Rebuild Rate (Media Pack at 100% capacity)	Estimated Rebuild Time
Avid NEXIS E-series and Avid NEXIS   PRO		
Scale-Out	40MB/sec (0.14TB/hour) or ~7 hr/TB	16TB Drive <sup>b</sup> = 112 hours
		14TB Drive = 98 hours
		10TB Drive = 72 hours
		6TB Drive = 42 hours
		4TB Drive = 28 hours
		2TB Drive = 14 hours
High	60MB/sec (0.22TB/hr) or ~5 hr/TB	14TB Drive = 70 hours
		10TB Drive = 50 hours
		2TB Drive = 10 hours
SSD (Avid NEXIS   E2 SSD only)	300MB/sec (1.08TB/hr), or ~3.125 hr/TB	3.84TB Drive = 12 hours
		1.92TB Drive = 6 hours
		960GB (.96TB) Drive = 3 hours

- a. 16TB drives are available in Avid NEXIS | F5 NL only.
- b. 16 TB drives are available in Avid NEXIS | E5 NL only.

The rebuild time increases with client load, and decreases as less data remains to be rebuilt.

Workspaces with One-Disk Protection are rebuilt before Workspaces with Two-Disk Protection, due to their higher vulnerability to a second drive failure.

### Media Mirroring and System Performance

For mirrored Workspaces, Avid NEXIS clients can continue working through an Engine failure without interruption or needing to reconnect. To ensure all clients can work seamlessly through an Engine failure, provision the shared-storage system with enough bandwidth to account for an Engine being offline.

## Hardware and Software Requirements

To meet the stringent needs of media applications the Avid NEXIS family of storage solutions is built using patented intellectual property in Avid NEXIS software running on Avid NEXIS hardware. Avid tests and qualifies configurations of Avid NEXIS software deployed on Avid NEXIS hardware. The Avid NEXIS System Director is designed to allow the binding of Avid NEXIS *only*. Avid has not published its file system specifications, protocols, or file system APIs used among the components of the file system (Avid NEXIS System Director, Avid NEXIS client, Avid NEXIS expansion engines) and these are subject to change without notice. Therefore, any connection of third party storage as part of an Avid NEXIS file system is not a licensed, approved or supported configuration.




*Avid NEXIS | Cloud Storage does not support third-party editing clients.*

The full compatibility matrix of Avid editors and hardware is available on the Avid support site at the following URL: [Avid Audio and Video Compatibility Charts](#)

The following table lists the compatibility between Avid NEXIS and editors from vendors other than Avid:

### Qualified Third-Party Editing Clients on On-Premises Avid NEXIS Workspaces

Editor	Version
Autodesk Flame	2021 You must use the CentOS 7.4 kernel specified by AutoDesk based on the Flame version you intend to use for connecting to Avid NEXIS.
Apple Final Cut Pro X (see <a href="#">“Final Cut Pro X Software” on page 31</a> )	10.4.2 and newer  <i>As of Final Cut Pro X 10.4, you can store library files on Avid NEXIS instead of on local drives.</i>
Adobe Premiere Creative Cloud	Premiere Pro 2018 (v12.1.1) and newer
Blackmagic Design DaVinci Resolve	14.3 and newer
Grass Valley EDIUS Pro	9 and newer

## Supported Client Operating Systems

The following table lists the currently supported client operating systems with on-premises Avid NEXIS. All of the listed client operating systems support single or dual 10Gb Ethernet network interface cards.



**All client computer names must be unique to connect to Avid NEXIS. A client computer name is treated as a user name, and all user names on a shared-storage system must be unique.**



*Avid NEXIS | Cloud Storage supports only Windows® and Linux® clients.*

Operating System	Supported Versions	Notes
macOS	12.x (Monterey) with latest updates	See <a href="#">“Security Considerations and Known Issues with macOS” on page 25</a> and the Knowledge Base page: <a href="#">Avid Products and macOS Catalina Support</a>
	11.x (Big Sur) with latest updates	
	10.15.x (Catalina ) with latest updates	
CentOS	7.9, 7.8, 7.7, 7.6	General Avid NEXIS Client use
	7.5, kernel 4.4.174-1.el7 and 7.5, kernel 3.10.0-862.el7.x86_64	Supported only on MediaCentral   Cloud UX systems running CentOS 7.5 See the <a href="#">Avid Audio and Video Compatibility Charts</a> on the Avid Knowledge Base page for more information on compatibility.
	7.4, kernel version 3.10.0-693.17	Specifically for use with AutoDesk Flame 2021; also see <a href="#">“Hardware and Software Requirements” on page 17</a> .

Operating System	Supported Versions	Notes
Windows	11	
	10 Build 21H2	See <a href="#">“Known Issues with Windows 10”</a> on page 23.
	10 Build 21H1	
	10 Build 20H2 (October 2020)	
	10 Build 2004 (May 2020)	
Windows Server	8.1 with latest updates	
	2019 with latest Service Pack	
	2016 with latest Service Pack	
	2012 R2 with latest Service Pack	

## Supported Browsers in an Avid NEXIS On-Premises Environment

The following are the minimum browser versions qualified for the current Avid NEXIS release stream. These browsers were qualified with the client operating systems supported in the current release.

### Supported Client Browser per Operating System

Operating System	Supported Browsers
Windows	Microsoft Edge <sup>a</sup> , Mozilla Firefox, Google Chrome
macOS	Apple Safari, Mozilla Firefox, Google Chrome <sup>b</sup>

a. Not recommended for initial installations or system upgrades.

b. On macOS v10.15 (Catalina), do not use Chrome for initial system setup or to access the Agent. Use Safari instead.

## Updated Security Guidelines

As system and network security attacks become increasingly more inventive and persistent, Avid is adopting a new security strategy to help you, our customer and partner, better protect your assets and intellectual property. As you might know, Avid has traditionally recommended Symantec Endpoint Protection as the preferred and qualified solution for much of the Avid product line. As of Q3, 2020, Avid is introducing a more flexible strategy that provides general guidelines for protecting your Avid systems. This new policy allows you to choose the best security solution for your organization, while still following Avid best practices. For more information, see [Avid Security Guidelines and Best Practices for Dealing with Virus Threats](#).

## Secure Data Deletion

For customers who require a guarantee that all deleted data is done so completely and securely (after deleting a Workspace), see the following URL for Secure Data Deletion tools available from Seagate, officially supported by Avid NEXIS: <https://www.seagate.com/support/secure-erase-matrix/>

# Switches, Adapters, and Drivers

## Qualified and Approved Avid NEXIS Switches

For a list of the current qualified and approved switches for use in the Avid NEXIS Production Network (APN), see the *Avid NEXIS Network and Switch Guide* on the [Avid NEXIS Documentation KB page](#).

## Flow Control Required in Avid Production Networks

Avid requires configuring Rx Flow Control (LFC) Enabled on the switch that connects to Avid NEXIS Engines and clients. The client or Engine provides feedback to the switch to honor ‘pause frames’ requests to throttle the send rate to avoid overwhelming the IP stack on the client or Engine, and to buffer at the switch during these short pauses.

Many network switches have Rx Flow Control enabled by default. Consult your switch documentation to verify your switch’s settings.

## ATTO® ThunderLink™ 10 GbE and 40 GbE Adapters

Avid NEXIS supports using several ATTO ThunderLink adapters for Mac and Windows (10GbE) clients. See *Avid NEXIS Network and Switch Guide* on the [Avid NEXIS Documentation KB page](#) for supported Intel (and Intel-based ATTO) NICs.

Get the latest ATTO driver from their website. Install the appropriate driver for your operating system. Use all the default values and settings.



*On macOS 10.15 clients, you might need to unblock ATTO from the Security & Privacy preferences in the System Preferences menu.*

## Myricom® Driver for macOS



*macOS 11 (Big Sur) and later do not support Myricom drivers. Clients can still run older supported macOS versions and use Myricom drivers with Avid NEXIS.*

The Avid NEXIS kit includes the Myricom driver called `myri10GE-1.3.6-MTU1500-Installer.dmg` to enable 10Gb connections to clients running macOS 10.15.x.

Install the driver from the `Drivers\Avid NEXIS Client\Myricom` folder in the Avid NEXIS software kit.



*If using VMware on Windows clients, use the 10GbE drivers that come with the Windows OS, not the Myricom driver.*



*On macOS 10.15 clients, you might need to unblock Myricom from the Security & Privacy preferences in the System Preferences menu.*

## VMware ESXi™

The Avid NEXIS Client is supported with VMware ESXi v6.0.0 (Update 1) using a VMXNET3 adapter with the Mellanox ConnectX-3 adapter and the Mellanox ESX OFED Driver version 1.9.10.2 or later.

## VMware on Windows

To use VMware on Windows clients, use the 10GbE drivers that come with the Windows OS, not the Myricom drivers. The Avid NEXIS Client software no longer changes the speed of the VMware virtual NIC to 1 GbE.

## Known Issues

The following are known issues with Avid NEXIS software or third-party vendors.

### Known Issues with Avid NEXIS On-Premises Systems

- On Avid NEXIS | PRO+, and any Avid NEXIS F-Series with a single Controller, the amber Module Fault LED on the Controller remains lit, which normally indicates an error condition. However if the system reports no errors on the Dashboard and is functioning normally, you can disregard this LED state. This problem has been traced to an internal firmware issue and the fix will be in a later release.
- When configuring an Avid NEXIS | F2 (initial setup in the Agent), the enclosure ID does not remain set, and continues to display the factory default of 00.

**Workaround:** Reboot the Engine after updating the enclosure ID.

- Cannot deactivate a license using the offline method. Although you can activate a license on an Avid NEXIS system that is isolated from any external network (offline), you cannot deactivate it while the system is offline.
- On older HP workstations, the Velocity implementation uses a filter driver called LiveQoS<sup>®</sup> that causes Media Composer errors such as:
  - Delayed write failures
  - “InitBinIndexDone: GetResult() failed”
  - “Project setting is not saved due to an error. Exception: *FILE\_OTHER,filename...*”

**Workaround:** On HP workstations with HP Velocity, disable the LiveQoS filter driver on the NICs used for Avid NEXIS connections. There are no known issues with Avid NEXIS when enabling Velocity inside Remote Boost for HP<sup>®</sup> workstations.

- When looking at switch statistics for the Dell N2024, Dell N3024, and NETGEAR XS712T, you might see the OutDiscard counter (on Dell switches) or the Transmit Packets Discarded counter (on the NETGEAR switch) incrementing. This is acceptable as long as the rate of discards is no more than 1% of the total packets transmitted, or as long as workflows are not experiencing any dropped frames.

### Known Issues with Avid NEXIS | Cloudspaces

Avid NEXIS | Cloudspaces was introduced in Avid NEXIS version 2019.4.

- If an Avid NEXIS system with Cloudspaces activated does not have NTP time synchronization enabled and its local time in UTC is behind (earlier than) the Azure time by 15 or more minutes, no communication to Azure can be made and all requests fail with the following authentication error: “Server failed to authenticate the request. Make sure the value of Authorization header is formed correctly including the signature.”

**Workaround:** Configure NTP Server time synchronization on the Avid NEXIS system or manually adjust the local system time to less than 15 minutes different from the Azure time.

## Known Issues with Avid NEXIS | Cloud Storage

- You might run into issues running clients with multiple NICs, each of which is able to connect to an Avid NEXIS | Cloud Storage system.

**Workaround:** In clients that are specifically connecting to Avid NEXIS | Cloud Storage, enable only one NIC.

## Known Issues with Avid NEXIS Client

When a workaround exists, it appears in the paragraph directly following the issue description.

- On-premises Windows 10 and 11 clients writing to a single Media Pack can become unresponsive.
- Avid is aware of an issue with intermittent communication, often during system discovery, between an Avid NEXIS and clients running on certain configurations of VMware host systems. For more information, see the following articles:
  - [Recommended VMware Versions and Settings](#) (Avid Knowledge Base)
  - [Network timeouts or packet drops with VMware Tools 11.x with Guest Introspection Driver \(79185\)](#) (VMware Knowledge Base)
- Do not use the Remote Avid NEXIS setting in the Client Manager when on site with the target Avid NEXIS system. This setting is designed for *remote* connections, especially with the upcoming Avid NEXIS | EDGE collaboration tool. The Remote Avid NEXIS setting supports proxy workflows and push/pull file copying, but **is not supported for on-premises or high resolution workflows**. For all on-premises workflows, use the local, physical network and gateway connection.
- If you mount a workspace by mapping a network drive in Windows, when you unmount the workspace and then mount a different workspace in Client Manager manually using the same drive letter, Windows Explorer displays the previous workspace name instead of the new workspace name.
- The estimated amount of space available (usually measured in an amount of time at a particular resolution) might differ between what Avid NEXIS calculates and what the Avid editing system calculates. Avid NEXIS accurately reports the amount of space available for file storage. The Avid editing application accounts for overhead in formatting of the media and is more conservative in reporting how much space is available.
- The Macintosh Finder might display the Avid NEXIS folder contents incorrectly, such as the contents of folders containing items whose name includes a pound sign (#) followed by numeric characters. For example, “project # 12” might be erroneously displayed with some items duplicated and some items missing.

**Workaround:** Avid recommends avoiding the use of names that include a pound sign (#) followed by numeric characters.

- The Avid NEXIS Log Utility may occasionally fail to generate logs with the error message “Couldn’t find OAM logs”.

**Workaround:** Close the error message and generate the logs again.

- If the Client Manager is connected to an Avid NEXIS system with dual controllers and the System Director service has switched over to the second controller, the Management Console launch button in the Client Manager does not redirect to the new System Director and cannot successfully open the Management Console.

**Workaround:** To launch the Management Console for an Avid NEXIS system, either open a browser and enter its IP address, or add the IP address of the redundant controller to the Remote Hosts list in the Client Manager.

- During Media Pack rebuilds the Engine performance might not reach the full Engine rating.
- On a client with multiple NICs, all network paths from the client to a particular Avid NEXIS must be via NICs with the same speed.
- If the Avid NEXIS Client software is installed accidentally on OS X 8.5 (or any other unsupported OS X version), running the uninstaller does not work.

**Workaround:** Use AppCleaner (a free download) to uninstall the Avid NEXIS Client software.

1. Download AppCleaner from: <http://www.freemacsoft.net/appcleaner/>
2. Follow the instructions for removing an application (in this case, Avid NEXIS Client).
3. Restart the Mac.

## Known Issues with Avid NEXIS | VFS Gateway

Avid NEXIS | VFS Gateway was introduced (as Avid NEXIS | Linux File Gateway) with Avid NEXIS version 2019.12.0. The utility was renamed in version 2022.9.

- The keyboard actions to select multiple items (using the Shift or Control keys) do not work.

## Known Issues with Windows 10

- On Windows 10 clients, when using TeraCopy to move large numbers of files to an Avid NEXIS Workspace (instead of using Windows Explorer), TeraCopy sometimes treats a file as a directory, and the Windows client displays an error that it cannot move the file. Avid strongly recommends not using TeraCopy.

**Workaround:** Use Windows Explorer or the Avid Data Migration Utility.

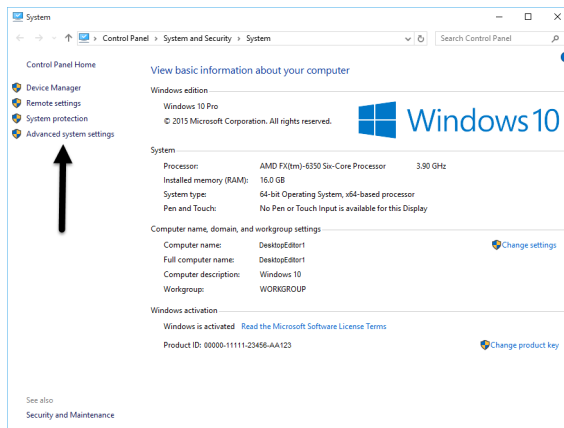
- On Windows 10 build 20H2 clients, Windows Defender might prevent Avid Pro Tools from starting a session on an Avid NEXIS Workspace.

**Workaround:** In Windows Defender, add Pro Tools as an exclusion from the antivirus scans.

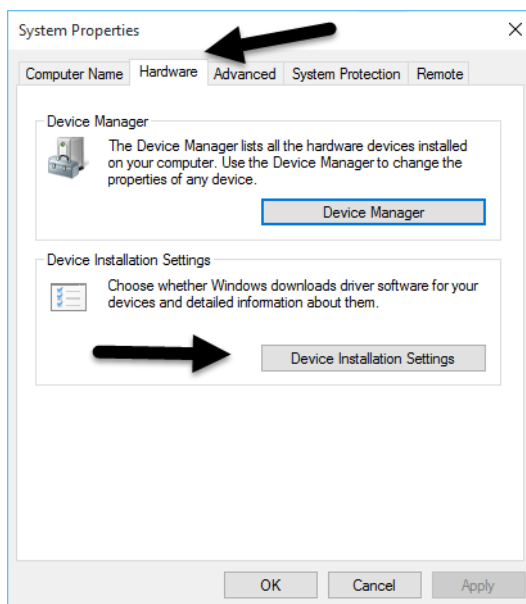
- On Windows 10 clients, automatic Windows driver updates can remove critical NIC driver settings needed for the correct functioning of the Avid Client.

To prevent disruption of clients running Windows 10 (Professional and Enterprise), you can defer automatic driver updates as follows:

1. Right-click the “This PC” icon (formerly called “This Computer”).
2. Select Properties.
3. Select Advanced System Settings.

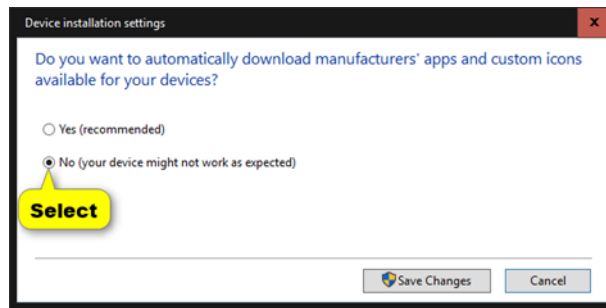


4. Click the Hardware tab, then click Device Installation Settings.



5. Select the option “No” to prevent downloading apps and icons automatically.





6. Click Save Changes.

## Known Issues with Mac Platforms

- **Bug Number:** SENG-30949, SENG-31725, SENG-32268, SENG-32360, SENG-32551, SENG-32635, SENG-32754, SENG-32941, SENG-33129. Avid is investigating several issues with kernel panics on Apple M1 Silicon systems.
- On Mac Pro 5,1 using a 2 x 1GbE connection to the Avid NEXIS system, you might not receive expected data rates.

## Security Considerations and Known Issues with macOS

- **Bug Number:** . On macOS clients using a remote workflow (with the Remote Avid NEXIS setting in the Client Manager), the VPN NIC might be listed in the Network Interface dialog box as `utunx`, where `x` is a number. There might not be any other information that identifies the NIC as belonging to the VPN adapter.
- macOS 10.13 and newer has enhanced security. By default, third-party kernel extensions (also called kexts) that were not previously installed are denied.

When installing the Avid NEXIS client on a macOS system, watch for the System Extension Blocked alert during the installation process, and click OK to allow the Avid NEXIS client installer to complete. See the Apple Technical Note [TN2459](#).

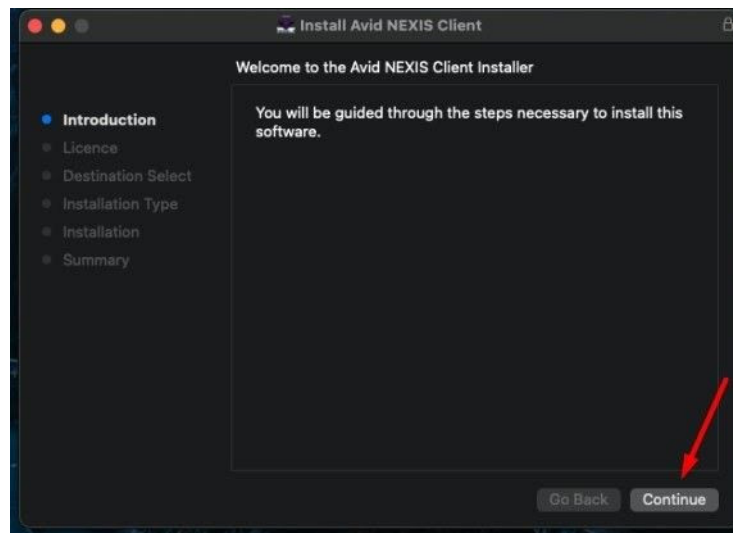
You might need to open the System Preferences > Security & Privacy dialog and allow the Avid NEXIS Client software to be installed. This dialog might be shown during the Client software installation or after the OS update. In some cases, the prompt is not shown at all.

Check for any outstanding approvals; you might have to check and approve multiple times. If not, the Client software might launch, but the driver might not be properly loaded. Make sure to check the Security & Privacy settings and confirm that the software from Avid was allowed to install.

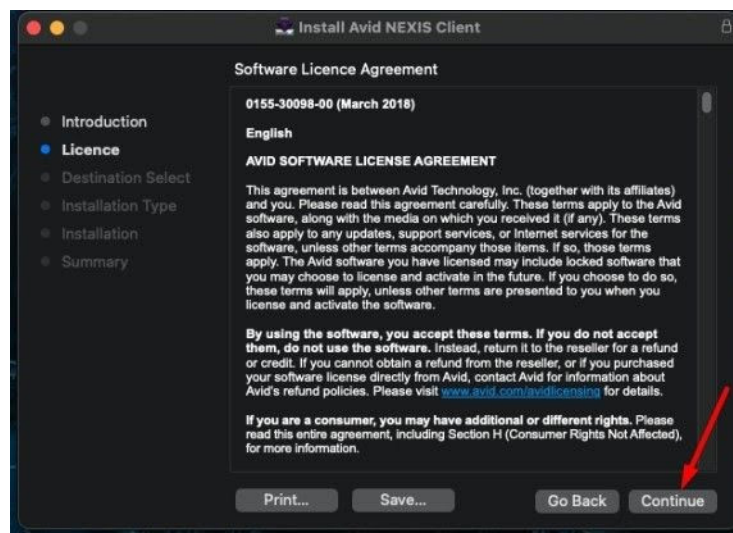
To see if anything was denied during installation and allow it, do the following:

1. As Administrator, open System Preferences.
2. Click Security and Privacy.
3. Click the General tab.
4. Click the lock button to make changes.

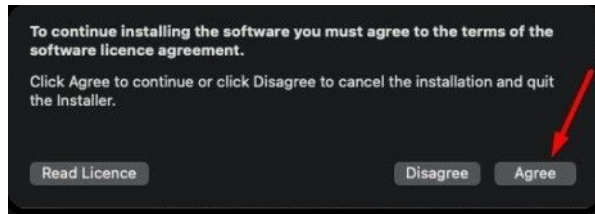
5. See if any applications or drivers are listed in the dialog box as having been denied. If so, click Allow apps downloaded from the App Store and identified developers.
  6. Close the System Preferences window.
- For macOS 11 (Big Sur) and macOS 12 (Monterey) running on an Apple M1 Silicon system, you must perform a few steps before installing Avid NEXIS Client software (whether installing for the first time, or after uninstalling a previous version and rebooting), as follows:
1. Reboot the macOS Apple M1 Silicon client system into Recovery mode.
  2. Set the security level to Reduced security.
  3. Allow loading of third-party kexts (kernel extensions).
  4. Reboot back to normal operation.
  5. Download the macOS Avid NEXIS Client software kit, and open it, then do the following:
    - a. On the Welcome screen, click Continue.



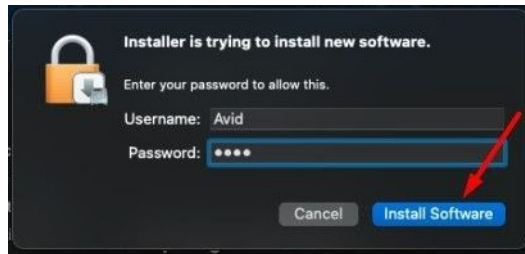
- 
- b. On the Software License Agreement screen, click Continue.



- c. In the License dialog box, read the license agreement, then click Agree.



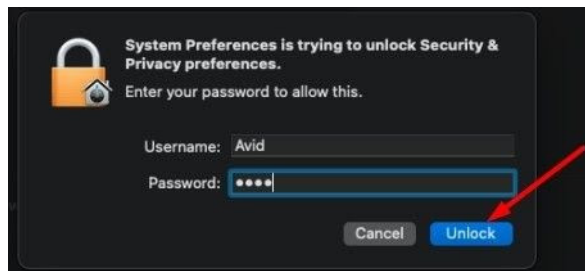
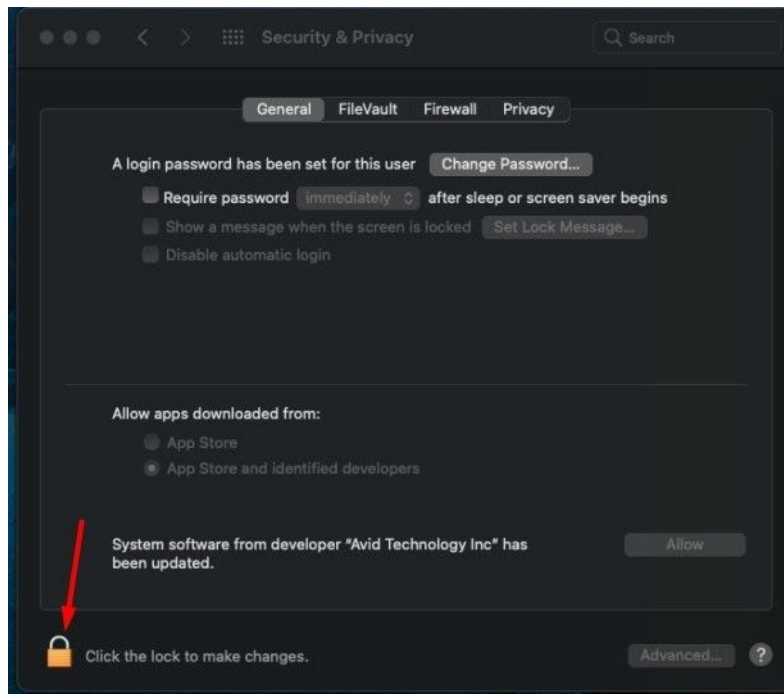
- d. Enter your user name and password, then click Install Software.



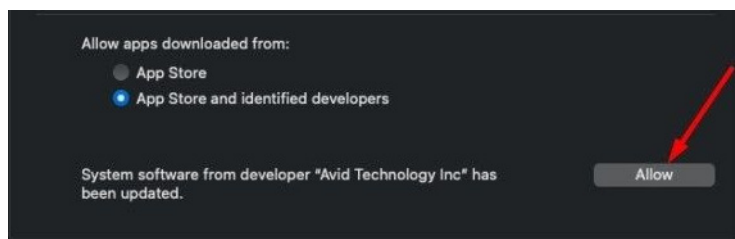
- e. In the popup window, click Open Security Preferences.



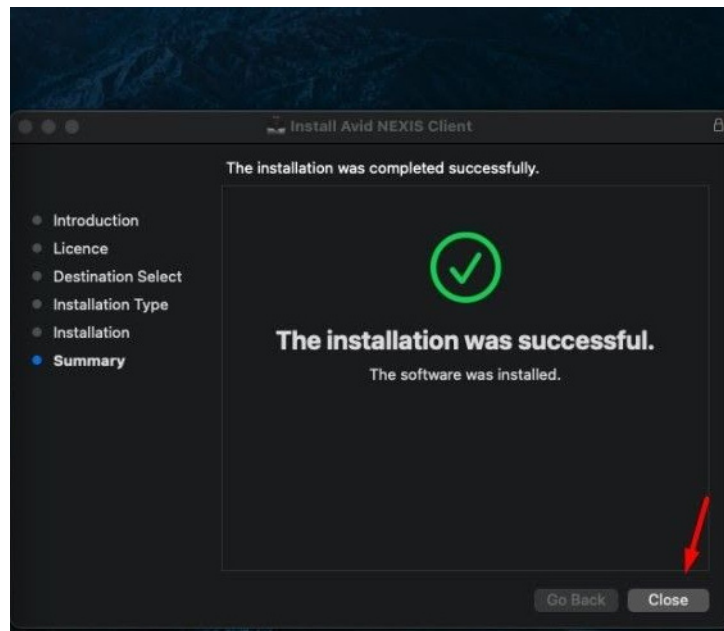
- f. Click the lock icon to allow changes.



g. In the “Allow apps” dialog box, click Allow.



h. In the Avid NEXIS Client Installation window, click Close.



- i. In the “Restart” dialog box, click Restart.



6. Wait for the system to load the kernel extension and rebuild the auxiliary kernel extension collection.

After the system reboots, you might again see the System Extension Updated dialog box. If so, repeat the following steps:

1. Open the Security & Privacy System Preferences (see step 5e in the previous procedure).
2. Authenticate to make changes (steps 5f and 5g).
3. Allow the system to load your kernel extension (step 5h).
4. Wait for the system to load the kernel extension and rebuild the auxiliary kernel extension collection.
5. Restart the system to load the new auxiliary kernel extension collection (step 5i).

- **UPDATED Aug 2021:** Avid Benchmark Utility does not work automatically on Avid NEXIS clients running macOS 10.15 (Catalina) and newer. On clients running macOS 10.15 and newer, you must explicitly allow permission for an application (including Avid Benchmark Utility) to have Full Disk Access.

**Workaround:** On the macOS client, click System Preferences > Security & Privacy > Privacy > Full Disk Access and check the box for `avidbenchmarkd`. You might need to provide Administrator credentials to unlock this function (Padlock icon). **If the `avidbenchmarkd` object is not shown in the list, run a test with the Benchmark Utility against the client; the test will fail, but running it causes the `avidbenchmarkd` object to appear in the list.**

- Starting with macOS 10.15.4, when you install a new Avid NEXIS Client kit on a system running this OS version, a Legacy System Extension warning is displayed when the Avid NEXIS Client kit loads and again periodically advising you to “contact the developer for support” for future releases of the client kit. Avid is working to keep our system extensions current with advancing requirements from Apple.

## Known Issues with CentOS

- Avid recommends not using the Development and Creative Workstation option when deploying CentOS 7.8 on an Avid NEXIS Client system as it can create a dependency conflict for packages required to install Avid NEXIS Client software. For existing CentOS clients, when upgrading the Avid NEXIS Client, if the installation fails with specific FUSE library conflicts, remove the existing FUSE libraries and retry the Avid NEXIS Client installation. Using the Development and Creative Workstation option can also create conflicts in port usage for Avid Benchmark Agent. If the ports are already in use, reboot the client to free up the ports.
- CentOS clients using the GUI can experience a delay in seeing all files when browsing contents of Cloudspaces with more than a few thousand files. Browsing Cloudspaces files using the terminal avoids the delay.

## Special Notes

This section contains important information about the Avid NEXIS environment.

### User Permissions

A user account with Administrator privileges is required to install the Avid NEXIS client software on your workstations.

### LDAP Requires ASCII User Names and Passwords

The Avid implementation of LDAP (Lightweight Directory Access Protocol) requires that you restrict LDAP user names and passwords to ASCII. The LDAP/Avid NEXIS Account Synchronizer searches for groups and their users on an LDAP server and synchronizes (reconciles) user and group accounts by adding or removing users and/or groups from Avid NEXIS.

### Fast User Switching Not Supported

Fast User Switching is a Windows feature that allows multiple user accounts to log on to a computer simultaneously. Fast User Switching is enabled by default in Windows computers. The Fast User Switching feature and multiple concurrent logged on user modes are not supported in the Avid

NEXIS environment. The Avid NEXIS software does not distinguish the different drive letters mapped to the same workspaces on the same computer. Conflicts appear in the following two scenarios:

- When one user maps a drive letter to one workspace and another user maps the same drive letter to a different workspace
- When one user maps a workspace to one drive letter, and another user maps a different drive letter for the same workspace.

## Macintosh Resource Files and Windows Clients

If Macintosh files are copied to a Windows system with the Macintosh resource fork files, the resource fork files cannot be copied to mounted workspaces from a Windows client. Avid NEXIS does not accept Macintosh resource fork files from Windows clients. Appropriate “properties” error messages are displayed if this is attempted.

## Adobe Premiere Pro

Avid has tested Adobe Premiere Pro as a client in Avid NEXIS environments.

Adobe Premiere clients follow the same guidelines for Client Manager Preference settings as Avid editors. The default Client Type setting is set to Medium Resolution (limited to resolutions that draw 16 MB/s or less). Use the High Resolution setting when working with High Definition media (resolutions that draw more than 16 MB/s). There are some HD resolutions that draw less than 16 MB/s for a single stream, but you should still use the High Resolution setting (for example, XDCAMHD 50). For more information, see the Knowledge Base at [www.avid.com/support](http://www.avid.com/support).

## Final Cut Pro X Software

Avid has tested Final Cut Pro X as a client in the Avid NEXIS environments. There is no Avid restriction on the QuickTime version. Use the QuickTime version recommended in the Final Cut Pro application. Avid NEXIS supports Final Cut Pro X Macintosh clients in Switched Media Network (Layer 2), Routed Media Network (Layer 3), and Non-media Optimized Network (Mixed Layer 2 and 3) environments.

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