

Compatibility Guide

Miria 3.15

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General Information

Presentation:

- New information in this document is shown in **blue**.
- End of Life components are shown in **red**. They are still supported in the current version but no longer in the next one.
- Legacy components that are no longer widely used are marked with icon .

Miria– Server

Operating System	Version	Architecture
Linux ¹	Red Hat 7	x86-64
	Red Hat 8	
	CentOS 7	
	CentOS 8	
	Debian 9	
	Debian 10	
	Debian 11	
	Ubuntu 18.04 LTS	
	Ubuntu 20.04 LTS	
	Ubuntu 22.04 LTS	
	Alma Linux 8	
	Oracle Linux 8	

¹Please note that the Administration Console is not available on Unix or Linux. If you install Miria Server on Unix or Linux, plan to have a separate Windows machine to run the Administration Console.

Operating System	Version	Architecture
	Rocky Linux 8	
Microsoft Windows	Server 2012 R2	x86-64
	Server 2016	
	Server 2019	
	Server 2022	

Miria – Agent / Data Mover

Operating System	Version	Architecture
Linux	Red Hat 7	
	Red Hat 8	
	CentOS 7	x86-64 & ARM64
	CentOS 8	
	EulerOS v2.0	
	Debian 9	x86-64
	Debian 10	
	Debian 11	x86-64 & ARM64

Operating System	Version	Architecture
	Ubuntu 16.04 LTS	
	Ubuntu 18.04 LTS	
	Ubuntu 20.04 LTS	
	Ubuntu 22.04 LTS	x86-64
	Alma Linux 8	
	Oracle Linux 8	
	Rocky Linux 8	
macOS	macOS Catalina (10.15)	
	macOS Big Sur (11)	x86-64 & ARM64 ¹
	macOS Monterey (12)	
Microsoft Windows	Server 2012 R2	
	Server 2016	x86-64
	Server 2019	
	Server 2022	

¹Needs Rosetta 2 Emulation

Miria – Administration Console

Operating System	Version	Architecture
	Server 2012 R2	
	Server 2016	
	Server 2019	
Microsoft Windows	Server 2022	x86-64
	Windows 8	
	Windows 10	
	Windows 11	

Miria – Web Connector


Operating System	Version	Architecture
Linux	Red Hat 8	x86-64 & ARM64 ²
	CentOS 8	
	Debian 10	
	Debian 11	
	Ubuntu 18.04 LTS	
	Ubuntu 20.04 LTS	
	Ubuntu 22.04 LTS	
	Alma Linux 8	
	Oracle Linux 8	
	Rocky Linux 8	
macOS ¹	macOS Catalina (10.15)	x86-64 & ARM64 ²
	macOS Big Sur (11)	
	macOS Monterey (12)	

¹If Miria Server is accessible only in HTTPS, WebConnector is not compatible with Safari client-side, because of Safari limitation.

²Needs Rosetta 2 Emulation

Operating System	Version	Architecture
Microsoft Windows	Server 2016	x86-64
	Server 2019	
	Windows 8	
	Windows 10	
	Windows 11	

Miria – Storage Devices

Vendor	Product	Status	Primary Storage	Secondary Storage	Snapstor Storage	FastScan & Snapshot Connector
(Any)	On-premises NAS offering CIFS / NFS access ¹		√	√		
Avid	Unity MediaNetwork / Nexis ²		√	√		
	GridScaler		√	√	√	√
DDN	ExaScaler		√	√		√
	IntelliFlash		√	√		√
	Celerra / VNX		√	√		
DELL EMC	Centera ³			√		
	Data Domain ⁴ /PowerProtect			√		
	PowerScale/Isilon		√	√	√	√

¹The choice between CIFS and NFS is dependent upon the OS used by Miria Agent to access the NAS. CIFS if Miria Agent is running on Windows, NFS if running on macOS or Linux/Unix. Public clouds NAS offerings are excluded. Please see dedicated entries.

²Avid Nexis compatibility guide is applied here. The gateway can be a Windows or a macOS – no Linux no Unix. If using this storage with a tape library, only AMM can be used. Please also refer to the section describing Avid Interplay compatible storage.

³EMC Centera is only supported when the compliance mode is not enabled. No macOS support for the EMC Centera (no API).

⁴Data Domain De-duplication Storage Systems are only supported as storage targets with NFS/CIFS.

Vendor	Product	Status	Primary Storage	Secondary Storage	Snapstor Storage	FastScan & Snapshot Connector
Exanet	ExaStore Clustered NAS		√	√		
Facilis ¹	TerraBlock server series		√	√		
FAST LTA	Silent Cube Storage		√	√		
Harmonic	MediaGrid2		√	√		
Hitachi	HNAS		√	√		
Huawei	OceanStor V5 series		√	√	√	√
	OceanProtect X Series		√	√		
Incom / HIT	HIT NAS Archive Appliance Series 1035 / 2105 / 3350 / 3560			√		
NetApp	FAS Series3		√	√		
Nutanix	Nutanix for Files		√	√		√
Panasas ⁴	ActiveStor™		√	√		

¹Validated with Miria using version 5.0.3.5 running native Facilitis file system and AVIDFS emulation.

²Only Miria Agent local mount points.

³Validation made with ONTAP version 6, 7, 8.0, 8.1, 8.2, and 9. No support for Windows 2012. Gateway needs to be Windows (Fpolicy API limitation). Please note integration is leveraging Fpolicy 7mode. Cluster mode is not supported. Please contact us for more details. Please note a NetApp filer can only have one Fpolicy registered application. If antivirus is already using Fpolicy, then stubbing will be not possible. Fpolicy Clusters are not supported – NetApp Metro Clusters are not supported. CIFS only volumes supported – CIFS/NFS volumes supported – NFS only volumes not supported.

⁴Validated with Miria using ActiveStor version 4.1.2. Certified using: CIFS connection from Windows, NFS connection from Linux/Unix/macOS. Now supporting DirectFlow on Linux.

Vendor	Product	Status	Primary Storage	Secondary Storage	Snapstor Storage	FastScan & Snapshot Connector
Panzura	Panzura Cloud Storage		√	√		
Permabit	Permabit Enterprise Archive		√	√		
	Permabit Cloud Storage		√	√		
Qumulo			√	√	√	√
Sony	Optical Disc Archive (ODA) ¹			√		
VAST	VAST Universal Storage ²		√	√		
Weka	WekaFS		√	√		

¹Please note that ODA is supported from both a Windows or Linux Miria controlled platform.

²Not available for NFSv4.

Miria – FastScan Compatibilities

Vendor	Product	Versions
DDN	GridScaler	4.x
	ExaScaler	5.1, 5.2.x, 6.0, Lustre 2.12.5_ddnX, 2.12.6_ddnX, 2.12.8_ddnX, 2.14.0_ddnX
	IntelliFlash	3-11-3-0.21, 3-11-4-0.38
DELL EMC	PowerScale/Isilon	OneFS 7.2, 8.x, 9.0 to 9.3
GPFS1		4.x, 5.x, 6.x
Huawei	OceanStor	V5 only
Lustre Community	Open source	2.12.x
Nutanix	Nutanix for Files	3.5, 4.x
Qumulo		2.8.5 to 5.2.x

¹GPFS on Windows nodes is not supported.

Miria – FastScan Lustre Server Operating System

GNU/Linux distributions using RPM:

- Minimum RHEL 7.x
- CentOS 7.x
- Rocky 8.x
- Alma 9.x

Server specifications

If you install an FSL server, it is recommended to have:

- 1 CPU with 12 cores.
- 64 GB of memory, mainly for the database.
- 1 GB for the distribution of the product.
- 200 GB of disk space (sufficient to store 1 billion objects in the database).

Miria – Object Storage Devices

Vendor	Product	Status	Primary Storage	Secondary Storage	Accelerate	Multipart	Lifecycle	Versioning	Object Lock
(Any)	Object Storages offering S3 / Microsoft Azure Blob Stock / SWIFT access		√	√		√		√	
Alibaba Cloud	Object Storage Service		√	√		√		√	
Amazon ¹	AWS S3 Storage		√	√	√	√	√	√	√
Datacore	SWARM		√	√			√	√	
Cloudian	HyperStore Object Storage		√	√		√		√	√
DataDirect Networks	Web Object Scaler (WOS): REST Interface			√		√			
	Web Object Scaler (WOS): WOS API			√					
Econocom	Econocloud S3		√	√		√		√	

¹Please note that we support the Amazon S3 API but we offer no direct support for Glacier's specific API, we use the S3 lifecycle feature to manage data movement to/from Glacier.

Vendor	Product	Status	Primary Storage	Secondary Storage	Accelerate	Multipart	Lifecycle	Versioning	Object Lock
EMC	Elastic Cloud Storage (ECS)		√	√					√
Google	Google Cloud Storage		√	√		√	√	√	
HDS ¹	HCP Object Storage & Cloud Storage		√	√					
Huawei	FusionStorage2		√	√		√		√	
	OceanStor 100D		√	√		√		√	
	OceanStor Pacific		√	√		√		√	
IBM	Object Cloud Object Storage		√	√		√		√	
Microsoft	Azure Blob Storage		√	√		√	√	√	
NetApp	StorageGrid3		√	√					
Quantum	ActiveScale		√	√			√	√	√

¹Certified with HCP version 6.

²Only S3 protocol is supported.

³Only S3 protocol is supported.

Vendor	Product	Status	Primary Storage	Secondary Storage	Accelerate	Multipart	Lifecycle	Versioning	Object Lock
Scaleway	Object Storage		√	√		√		√	
Scality	RING sproxid			√					
	RING CDMI	L		√					
	S3		√	√		√			
Seagate	Lyve Cloud		√	√		√		√	√
Storj	Decentralized Object Storage		√	√		√			
Vastdata	Object Storage (S3)		√	√		√		√	√ ¹
Wasabi	Object Storage		√	√		√		√	√

¹Governance mode only.

Miria – Supported File Systems

Operating System	Version
Microsoft Windows ¹	NTFS, ReFS
macOS ²	HFS+, APFS
Linux	Ext2, Ext3, Ext4
	XFS

¹DFS is not supported.

²AFP is not supported.

Media Manager (AMM)

The Media Manager needs to be installed in environments where the target archiving is tape.

It is the platform that enables Miria to access tape libraries and tape devices.

Atempo Media Manager can be installed on the same machine as the Miria agent or on a different machine. It is an option of the Miria agent setup.

Operating System	Version	Architecture
Linux	Red Hat 7	x86-64 & ARM64
	Red Hat 8	
	CentOS 7	
	CentOS 8	
	Debian 9	x86-64
	Debian 10	
	Debian 11	x86-64 & ARM64
	Ubuntu 16.04 LTS	x86-64
	Ubuntu 18.04 LTS	
	Ubuntu 20.04 LTS	
	Alma Linux 8	
	Oracle Linux 8	
	Rocky Linux 8	

Operating System	Version	Architecture
macOS	macOS Catalina (10.15)	x86-64 & ARM64 ¹
	macOS Big Sur (11)	
	macOS Monterey (12)	
Microsoft Windows	Server 2012 R2	x86-64
	Server 2016	
	Server 2019	
	Server 2022	

Supported Libraries

The following libraries are supported by the Media Manager.

BDT:

- MultiStak
- Flexstor
- Flexstor II

DELL:

¹Needs Rosetta 2 Emulation



- Dell ML6000
- Dell 160T
- Dell TL2000/TL4000

FUJITSU:

- Fujitsu-Siemens FibreCAT TX24
- Fujitsu-Siemens FibreCAT TX48
- Eternus LT 20/40/60 S2 Series
- Eternus LT260

HP:

- HP StorageWorks 1x8 G2
- HP MSL 2024 / 4048 / 6000 / 8096
- HP 1/8 Thinstor
- HP MSL6480
- HP MSL3040

HUALU:

- DA-BH7010
- DA-BH8010



IBM:

- IBM TS3100 / TS3200 / TS3310
- IBM TS2900 / TS3500 / TS3576
- IBM TS4500
- IBM 3584

NEC:

- NEC LL009F
- NEC T40A
- NEC T16A

ORACLE STORAGE TEK

- STK SL500
- STK L700 , Sun StorEdge L700
- STK L180 , Sun L180
- STK L20
- STK L40
- STK L80
- SUN STK SL3000
- StorageTek C4
- StorageTek SL24 / SL48 / SL150



- StorEdge L400
- All library using ACSLS (SL8500,...)

OVERLAND:

- NEO Series 2000 / 4000 / 8000 Arcvault Series
- NEOxl 40, 60 and 80
- NEOs T24 and NEOs StorageLoader

QUALSTAR:

- Qualstar Q Series
- Qualstar XLS Series
- Qualstar TLS Series
- Qualstar RLS Series

QUANTUM:

- Adic Scalar i500
- Adic Scalar i2000
- Adic Scalar 24
- Adic Scalar 10k
- Adic Scalar 100



- Adic Scalar 1000
- Quantum Scalar i3/i6
- Quantum Scalar 50
- Quantum Scalar i40 / i80
- Quantum Scalar i500
- Quantum Scalar i2000, i6000
- Quantum SuperLoader3
- Quantum PX500 Series
- Quantum PX720
- ATL M1500, M4 DATA MagFile, M4 DATA MagStack 2-4, M4 DATA MagStack 5-10

SPECTRA LOGIC:

- Spectra Logic T Series
 - T24 to T-Finity
(T50, T120, T200, T380, T680, T950,...)
- Spectra Stack

SONY:

- PetaSite series using FC SCSI connection
(PSC API not yet supported)

TANDBERG/EXABYTE:

- Tandberg T-40
⁰No automatic detection of the library. A manual procedure is required. Please contact Atempo Professional Services for more information.
- Exabyte Magnum 448, Tandberg StorageLibrary T48
- Exabyte Magnum 224, Tandberg StorageLibrary T24
- Exabyte Magnum 1x7 2U
- Exabyte Magnum20

Supported Drives

Technology	Model	WORM and Encrypted Drive
HP	HP LTO3, LTO4, LTO5, LTO6, LTO7, LTO8, LTO8M, LTO9	No
HUALU	Hardware mode: DA-BH7010, DA-BH8010 Software: AuroraGDAS version 3.1.14	Yes
IBM	IBM LTO3, LTO4, LTO5, LTO6, LTO7, LTO8, LTO8M, LTO9 IBM TS1130, IBM TS1140, IBM TS1150, IBM TS1155, IBM TS1160	No
Oracle StorageTek	T10KA, T10KB, T10KC, T10KD T9840, T9940	No

Technology	Model	WORM and Encrypted Drive
	Minimum supported versions are: Drive ODA FC: ODS-D77F	
Sony ODA	Firmware level 1688 ODA Driver: 5.4 Gen 1 & 2 & 3, SAN Support only supported on Linux	Yes (depending on media)

Supported Tape Formats

Tape Format	TAR (PAX)	LTFS ¹
Available using AMM	Yes	Yes from LTO5, LTO6, LTO7, LTO8, LTO8-M, LTO9
Metadata automatically Stored on Tape	Yes	No ²
Tape Duplication	Yes	Yes
Tape Verify	Yes LTO5, LTO6, LTO7, LTO8, LTO8-M, LTO9	Yes LTO5, LTO6, LTO7, LTO8, LTO8-M, LTO9
WORM	Yes LTO5, LTO6, LTO7, LTO8, LTO8-M, LTO9	No

¹LTFS format is compliant with LTFS Format Version 2.5.1 standard

²The LTFS standard does not normalize the storing of metadata on tape.

Library & Drive Limitations

Drives

The type of drives supported are the ones listed as supported by Miria in the above section.

Libraries

AMM only supports libraries that offer barcode management capabilities.

When barcode management is available, AMM supports the following library types:

- SCSI
- iSCSI
- Fiber Channel
- SAS (Linux and Windows only)
- RoCE

Devices

- **No VTL support with Miria/AMM**
- Only tape libraries and tape drives in a library are supported (no standalone drives)
- **Only tape libraries equipped with mailbox are supported** (no autoloader)
- Only libraries with the serialization mechanism (drive serial numbers are reported by the library) are supported
- Only devices with serial numbers are supported

- Device names must not contain spaces as characters
- Barcodes on cartridges are mandatory, must be reported by the library **and must be unique in the Miria configuration**
- Cleaning of tape drives is not supported (cleaning must be managed by the library)
- Only one type of tape drive per library is supported (e.g. LTO) but a generation mix is allowed (e.g. LTO7+LTO8).
- Drive and library arm multipath are supported

Other limitations

- Tape drives and tape libraries connected through NDMP are not supported
- Drive sharing with other applications is not supported
- Library sharing with other applications is not supported, but library splitting is supported

Other Media Manager Supported:

- Sun StorageTek ACSLS 7.3, 8.x
- Sun StorageTek LibAttach 1.4.2

ACSLs Support

- The ACSLS server can be on any operating system (check Oracle compatibility guide)
- Only one library can be declared on the ACSLS server and Media Manager only supports the standard port for ACSLS clients

Miria – Transcoding for Video Asset Preview

The transcoding for video asset preview feature creates a low-resolution version of an asset that can be viewed in a video player without retrieving the entire asset.

The license for this option is complimentary. It can be obtained free of charge by completing a request form upon configuring the Video proxy transcoding format in Miria Administration Console.

The transcoding option is only available with **Miria File Storage One to One located on the Miria Server**. All video formats/codecs supported by FFmpeg can be transcoded, however if you intend to perform Partial File Retrieval, some restrictions apply, see the Partial File Retrieval section for details.

The Preview Player is only available on Windows and macOS interfaces, not available on java UI.

Partial retrieval can be performed directly from the Miria Preview Player on Windows interfaces only, not available for macOS or java UI.

Operating System	Version	Possible Preview File Format	Preview Player Available	Launch PFR from Preview Player
Linux		MPEG-1/QuickTime H.2641/QuickTime	Yes	Yes
macOS	See Agent compatibility	MPEG-1/QuickTime H.2641/QuickTime	Yes	Yes
Microsoft Windows		MPEG-1/QuickTime H.2641/QuickTime	Yes	Yes

¹Provided that H.264 Cisco library has been installed on the agent. See Miria Administration guide for details.

Miria – Partial File Retrieval (PFR)

The Partial File Retrieval (PFR) feature for the MXF and QuickTime (QT) formats is available via the Rich Media option that must be added to the Miria configuration.

PFR is only available in Agent Mode archiving, not in Client Mode.

The Rich Media Option also delivers automatic metadata import for media industry file formats such as MXF, DPX, etc. See the Metadata Import section for details.

Containers Supported by the PFR Option

QuickTime (QT)

No restriction concerning the essence supported.

MXF

Miria supports the wrappers, standards and essences listed below. Please note that in order to confirm that we are fully compatible with your flavor of MXF files, please send links to samples file to be tested to: ada_info@atempo.com.

- MXF wrappers: OP1a.
- Video standards: PAL, NTSC (drop/non drop frame).

and the following essences: MPEG-2 (including XDCAM, Long GOP), DV 25/50, DVCAM, DVCPRO, DNxHD, IMX 30/50, AVC-Intra, XAVC, JPEG 2000, Uncompressed, BWF, AES, IMX 30, 50, 50, Mpeg2, Mpeg2HD, Mpeg4, DV, DVCPRO 25/50, DVCPROHD, AVC-I, H.264, Jpeg2K, DNxHD, uncompressed, Tiff, Dpx, Bwf, Wave, Aiff, Aes2, Aes8, VBI, D-Cinema(DCI) support, DCP creation.



Concerning the support of “clip/frame wrapping” mode (video audio interleaved) by our Partial File Retrieve feature, here is the perimeter supported:

- In entry: MXF clip/frame wrapping is supported
- In output: MXF OP1a frame wrapped

Concerning Avid’s MXF formats:

- Partial File Retrieve is fully supported in an Interplay configuration equipped with an Interplay Archive Server.

Miria – Metadata import

The Automatic Metadata Import feature delivers Automatic Metadata Import for media industry file formats (MXF, DPX...) or graphic file formats (AVI, JPG, MPEG, JPG2000...) depending on the option reference. It is available in the Rich Media Option. An additional license is required for this feature.

From the following graphical file formats (file must be named with the exact file extension listed below):

ARW AVI AVS BMP CALS CIN CMYK CMYKA CRW CUR CUT DCM DCR DCX DIB DJVU DNG DPX EMF EPDF EPT EXR FAX FITS FPX GIF GRAY HALD HRZ SHTML ICO INFO INLINE JBIG JNG JP2 JPC JPEG MAT MIFF MONO MOV MNG M2V MPEG MPC MPR MRW MSL MTV MVG MXF NEF ORF OTB P7 PALM PAM PBM PCD PCDS PCL PCX PDB PEF PFA PFB PFM PGM PICON PICT PIX PNG PNG8 PNG24 PNG32 PNM PPM PS PSD PTIF PWP RAD RAF RGB RGBA RLA RLE SCT SFW SGI SHTML SUN SVG TGA TIFF TIM TTF TXT UIL UYVY VICAR VIFF WBMP WMF WPG X XBM XCF XPM XWD X3F YCbCr YCbCrA YUV

Many types of metadata can be collected in images generated by graphics software or in digital photos, including EXIF, IPTC and XMP metadata standard. If you want to know if a specific type of metadata can be collected, please send an email to ada_info@atempo.com with a sample file containing metadata and in the email body the list of metadata to look for.



Miria – Application Integration & APIs

This section lists the plugins and integration maintained by Atempo.

Application Plugin

Application	Version
Avid Interplay / MediaCentral Production	Avid Interplay Production versions 2.7 to 2017.2 Avid MediaCentral Production version 2018.6 to 2019.6 Using Production Archive Engine (DET v2.x API)
Primestream FORK Production Suite	Integration with Miria is delivered by Primestream as an option to FORK1.

API Platform

API Type	Platform
C++ API	Please refer to Miria Server platform list
Web Services	Web services are provided by Miria Server. Please refer to Miria Server platform list.
REST API	REST API are provided by Miria Server. Please refer to Miria Server platform list.

¹Please contact Primestream for more information on the option and service required to integrate with FORK.

Miria – Language Availability

Interface	Languages
Web Interface (Administration & End-user)	English, French, Simplified Chinese
Administration Console	English, French, Japanese, Korean, Simplified Chinese
CLIs	English, French

Network & Protocols

- LDAP implementation supported: Microsoft Active Directory, OpenLDAP, 389 Project, FreeIPA
- Supporting NFS v2.x, v3.x and v4.x
- Operating Systems of Miria Data Movers
 - **CIFS** access: Supporting **only Windows-based** Miria DataMovers/Agents
 - **NFS** access: Supporting **only Linux-based or macOS-based** Miria DataMovers/Agents
- No support for:
 - IPv6 host names are currently not supported
 - Parallel NFS (pNFS)
 - Apple File Protocol (AFP) is not supported
 - No CIFS support on Linux/Unix or macOS Agents
 - No NFS support on Windows Agents

Miria – Specific Limitations

This section is listing limitations related to IT environment and infrastructure not listed in above sections of this document:

- **Disk Storage**
 - Extraction / unplugging of a removable disk is not supported by Miria
- **Virtual Tape Library/VTLs**
 - Are not supported by Miria/AMM