

Nodeum Compatibility Guide

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NODEUM[®]

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PREFACE

About this Guide

This Public Guide provides the Compatibility matrix.

Conventions

This document uses the following typographical conventions:

Convention	Description
BLUE	New Information is present in Blue
RED	End of Life Components is present in red

CHAPTER 1 - Nodeum Operating System

Operating System	Version	Architecture
Linux	RHEL 7.9	x86-64
	CentOS 7.9	x86-64
	RHEL 8.x	x86-64
	CentOS 8.x	x86-64
	Rocky 8.x	x86-64

Important note : Antivirus is not supported.

CHAPTER 2 - Nodeum Virtual Server Deployment

Operating System	Version	Architecture
Hypervisors	ESXi 5.x	X86-64
	ESXi 6.x	
	ESXi 7.x	
	Fusion 4.x	

Fusion 5.x
Fusion 6.x
Fusion 7.x
Fusion 8 x and later
Workstation 8.x
Workstation 9.x
Workstation 10.x
Workstation 11.x
Workstation 12.x and later

CHAPTER 3 – Interface

The Web-Based Interface is designed in responsive HTML5. English is the supported language.

Browser
Chrome
Firefox

CHAPTER 4 – Client File systems supported

The file system used an internal cache system and is extended with secondary storage volumes.

Client Operating system	Version	Protocol
Windows	Windows 7 – 8 – 10	SMB / NFS
	Windows Server 2008, 2012, 2016	
MacOS	MacOS Catalina 10.15	SMB / NFS
Linux	Ubuntu	SMB / NFS
	Debian	
	Fedora	
	CentOS	
	RHEL	

Client Application	OS	Protocol
Cyberduck	Windows/MacOS	S3 (HTTP/HTTPS)
CloudBerry Explorer	Windows/MacOS	S3 (HTTP/HTTPS)
MinIO Client	Windows/MacOS/Linux	S3 (HTTP/HTTPS)
rclone	Windows/MacOS/Linux	S3 (HTTP/HTTPS)

CHAPTER 5 – Storage Supported

NAS Storage

Vendor	Product	Protocol supported	Primary Storage	Secondary Storage
DELLEMC	Scale-out NAS Isilon	SMB / NFS	YES	YES
Fast LTA	Silent Cubes	SMB / NFS	YES	YES
	Silent Brick			
Hitachi	HNAS	SMB / NFS	YES	YES
Huawei	OceanStor	SMB / NFS	YES	YES
HPE	StoreEasy	SMB / NFS	YES	YES
Linux	Ubuntu	SMB / NFS	YES	YES
	RHEL			
	CentOS			
NetApp	FAS Series	SMB / NFS	YES	YES

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7-mode and cluster mode				
Quantum	StorNext	StorNext	YES	YES
QNAP	All Series	SMB / NFS	YES	YES
Oracle	ZFS Storage Appliance	SMB / NFS	YES	YES
Synology	All Series	SMB / NFS	YES	YES

Nodeum Supports:

- NFS v3 and NFS v4;
- SMB v1, SMB v2.1, SMB v3.

Object Storage

Nodeum uses S3 or Swift protocols to communicate with object storage. The product validates the connection with different Object Storage providers (public, private). The following compatibility matrix highlight the different technologies and vendors Nodeum is compatible with:

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Providers	Product	Type	Protocol	Nodeum Connector	Primary Storage	Secondary Storage
Amazon	AWS S3 Storage	Public	S3	Amazon AWS S3 Storage	YES	YES
CEPH		On-Premise	S3	Generic S3	YES	YES
Cloudian	HyperStore	On-Premise	S3	Cloudian HyperStore	YES	YES
Datacore	DataCore Swarm	On-Premise	S3	DataCore Swarm	YES	YES
Dell Technologies	Elastic Cloud Storage (ECS)	On Premise	S3	Dell EMC ECS	YES	YES
FileBase		Public	S3	Generic S3	YES	YES
Google	Google Cloud Storage	Public	Google Storage	Google Cloud Storage	YES	YES
Huawei	OceanStor	On-Premise	S3	Generic S3	YES	YES
IBM	IBM Cloud Object Storage (COS)	On-Premise	S3	Generic S3	YES	YES

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MinIO		On-Premise	S3	Generic S3	YES	YES
Microsoft	Azure Blob	Public	Blob	Microsoft Azure Blob Storage	YES	YES
NetApp	StorageGRID	On Premise	S3	Generic S3	YES	YES
OpenStack Swift	non-Keystone Keystone v2.0 Keystone v3.0	On-Premise	Swift	Openstack Swift	YES	YES
Quantum	ActiveScale ActiveScale Cold Storage	On-Premise	S3	Quantum ActiveScale	YES	YES
Scality	Scality Ring	On-Premise	S3	Scality RING	YES	YES
Wasabi Hot Cloud Storage		Public	S3	Wasabi Hot Cloud Storage	YES	YES

Encryption for S3 Storage

Nodeum allows the usage of the 3 types of Amazon's Server-Site Encryption:

- SSE-S3
- SSE-C
- SSE-KMS

Tape Library

Natively, Nodeum supports and manages tape library as secondary storage.

It uses the LTFS open format to write data on magnetic tapes.

Tape Writing Format	Format Specification	LTO Supported
Quantum LTFS	2.2.0	LTO5-LTO6-LTO7-LTO8
	2.4.0	LTO5-LTO6-LTO7-LTO8-LTO9
Openltfs	2.4.0	LTO5-LTO6-LTO7-LTO8-LTO9
HPE LTFS	2.2.0	LTO5-LTO6-LTO7-LTO8

Barcode Tape management capabilities are supported for Fiber Channel - SAS Tape Library

Storage Providers	Model	Protocol	Secondary Storage
Oracle STK	SL150 Modular	Fiber Channel / ACSLS	YES
	SL3000 Modular		
	SL4000 Modular		
	SL8500 Modular		
Quantum Scalar	Scalar i3	Fiber Channel	YES
	Scalar i6		

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	Scalar i500		
	Scalar i6000		
DELLEMC	TL2000	Fiber Channel	YES
	TL4000		
	ML6000		
HPE StoreEver	ESL G3	Fiber Channel	YES
	T950		
	MSL6480		
	MSL2024/4048		
IBM	TS Series	Fiber Channel	YES
Overland Tandberg	NEO Series	Fiber Channel	YES
Spectralogic	T950	Fiber Channel	YES

Tape Drive Storage

Vendor	Standard	Drive Encryption	WORM	On-demand
HPE	Ultrium LTO5 - LTO6	YES	NO	
IBM	Ultrium LTO5 - LTO6 - LTO7 - LTO8 - LTO8M - LTO9	YES	NO	IBM Jaguar
Oracle		NO	NO	Oracle T10k

CHAPTER 6 – Network and Protocols

LDAP implementation supported: Active Directory by Microsoft

- Supporting NFS v3 and v4
- Supporting SMB 1 – 2 – 3
- Supporting S3

CHAPTER 9 – Application Integration & APIs

Application Connection

Application	Type
Marabu	SMB Network Shared
Nodeum Reloader	REST API
CatDV	XML Reference File Parsing (v1 and v2)
Final Cut Pro	XML Reference File Parsing
MHL compatible	MHL Reference File Parsing

API

Nodeum provides its API to manage, control and operate with the overall solution. The different API endpoints are documented and can be found at <https://www.nodeum.io/resource-api#/>

API	
HTTP RESTful API	Allow get, create, update, & delete objects with the HTTP verbs GET, POST, PUT, PATCH, & DELETE. The API speaks exclusively in JSON.

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SDK

Nodeum SDK is provided in different languages such as Rust, Python, Go, JS, Java, ... These SDKs bring acceleration in the Nodeum API adoption and help in the usage of Nodeum in your environment.

Curl	Rust
Java	Python
GO	Perl
Obj-C	PHP
Javascript	C#

ND Client

In addition to the SDK, Nodeum also provides a ND Client generated from the OpenAPI.

Contact Us

Do you need help with your huge & complex data? Do you need to move it, secure it, process it, share it, or manage it in some other way that you can't right now? Contact Nodeum to learn more about how you can achieve it.

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