

Swordfish Property Guide

Version: 1.2.5

Abstract: The Swordfish Property Guide provides a high-level reference of property usage throughout the Swordfish schema and object model.

SNIA Approved Publication

Publication of this Working Draft for review and comment has been approved by the Scalable Storage Management Technical Work Group. This draft represents a 'best effort' attempt by the Scalable Storage Management Technical Work Group to reach preliminary consensus, and it may be updated, replaced, or made obsolete at any time. This document should not be used as reference material or cited as other than a 'work in progress.' Suggestions for revision should be directed to http://www.snia.org/feedback.

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USAGE

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Current Revision

SNIA is actively engaged in expanding and refining the Swordfish documentation. The most current revision can be found on the SNIA web site at https://www.snia.org/tech_activities/standards/curr_s

Contact SNIA

Current SNIA practice is to make updates and other information available through their web site at http://www.snia.org.

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INTENDED AUDIENCE

This document is intended for use by individuals and companies engaged in storage management.

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This document is versioned material. Versioned material shall have a three-level revision identifier, comprised of a version number "v", a release number "r" and an errata number "e". Future publications of this document are subject to specific constraints on the scope of change that is permissible from one revision to the next and the degree of interoperability and backward compatibility that should be assumed between products designed to this standard. This versioning policy applies to all SNIA Swordfish versioned materials.

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versioned material. An errata revision may be backwards incompatible, if the incompatibility is necessary for correct operation of implementations of the versioned material.

Revision History

The evolution of this document is summarized in Table 1.

Table 1: Revision History

Date	Rev	Notes					
2 March 2021	Initial Version	Released as v1.2.2 to match bundle version					
30 August 2021	v1.2.3	Updated with latest property definitions.					
5 December 2021	1.2.3	Release as SNIA Approved Publication					
12 April 2022	1.2.4	Release as Working Draft					
12 July 2022	1.2.4a	Release as SNIA Standard.					

About SNIA

SNIA is a non-profit organization made up of member companies spanning information technology. A globally recognized and trusted authority, SNIA's mission is to lead the storage industry in developing and promoting vendor-neutral architectures, standards and educational services that facilitate the efficient management, movement and security of information.

Acknowledgements

The SNIA Scalable Storage Management Technical Work Group, which developed and reviewed this work in progress, would like to recognize the significant contributions made by the following members listed in Table 2.

Table 2: Contributors

Member	Representatives (* – prior employer)
Intel Corporation	Richelle Ahlvers

1 Introduction

1.1 Overview

The Swordfish Scalable Storage Management API ("Swordfish") defines a RESTful interface and a standardized data model to provide a scalable, customer-centric interface for managing storage and related data services. It extends the Redfish Scalable Platforms Management API Specification to manage block storage, file systems, object storage, and storage network infrastructure, with a focus on common operational and business concerns of storage management.

The Swordfish API is defined using CSDL, JSON, and/or YAML schema. However, Swordfish is a REST-based API and can be used by clients without requiring an explicit knowledge of the underlying schema.

This document provides a comprehensive reference for the properties defined within the schema that can be provided by the Swordfish API.

1.2 Who should read this document?

This document is intended primarily for end users and other consumers of Swordfish data to look up property definitions, without requiring a detailed knowledge of the schema as a whole. Schema authors may also use this document to locate existing property definitions within the Swordfish Schema.

1.3 Using this guide

Every Redfish API response consists of a JSON payload containing properties that are strictly defined by a Schema for that Resource. The Schema defining a particular Resource can be determined from the value of the "@odata.type" property returned in every Redfish response. This guide details the definitions for every Redfish standard property defined in the DMTF-published Redfish Schemas.

The property-level details summarized in Table 3 include:

Table 3: Property-level details

Column	Purpose
Property Name	The name of the JSON property as it appears, case sensitive, in the JSON payload.
Description	The description of the property, as copied directly from the Schema Description definition, or, for properties that appear in multiple Schemas, a general description of its usage in any of the listed Schemas.
Defined in Schemas	The names of the Redfish Schemas where this property is defined, and therefore in which Resources it may appear. For properties that appear within embedded JSON objects, the object name appears in parentheses.
Type	The JSON data types for the property, which can include boolean, number, string, or object. String types that use defined enumerations state (enum). Number types state units, where used.

2 Property Index

Property Name	Defined In Schema(s)	Туре	Description
AccessCapa bilities	FileSystem	array	An array of supported IO access capabilities.
	DataStorageLineOf Service	array	Required access capabilities
	Volume	array	Supported IO access capabilities.
AccessCapa bility	StorageGroup (MappedVolumes)	strin g (enum)	Supported IO access capability.
AccessProt ocols	IOConnectivityLin eOfService	array	SupportedAccessProtocols.
AccessStat e	StorageGroup	strin g (enum)	AccessState for this storage group.
Actions	various(CapacitySource,ClassOfService)	objec t	The available actions for this resource.
AddDrives (Action)	StoragePool (Actions)	objec t	This action is used to add an additional drive, or set of drives, to a capacity source for the storage pool.
AllocatedB ytes	CapacitySource (ProvidedCapacity > Data), CapacitySource (ProvidedCapacity > Metadata), CapacitySource (ProvidedCapacity > Snapshot)	integ er (byte s)	The number of bytes currently allocated by the storage system in this data store for this data type.

Property Name	Defined In Schema(s)	Туре	Description
AllocatedP ools	StoragePool	objec t	A reference to the collection of storage pools allocated from this storage pool.
	Volume	objec t	An array of references to StoragePools allocated from this Volume.
AllocatedV olumes	StoragePool	objec t	A reference to the collection of volumes allocated from this storage pool.
AntivirusE ngineProvide r	DataSecurityLineO fService	strin g	AntiVirus provider.
**AntivirusS canPolicies	DataSecurityLineO fService	array	Policy for triggering an AntiVirus scan.
AntiVirusS canTrigger	DataSecurityLineO fService (AntivirusScanPol icies), DataSecurityLoSCa pabilities (SupportedAntivir usScanPolicies)	strin g (enum)	Types of antivirus scan triggers.
AssignRepl icaTarget (Action)	ConsistencyGroup (Actions)	objec t	This action is used to establish a replication relationship by assigning are existing consistency group to serve as a target replicator an existing source consistency group.

Defined In Schema(s)	Туре	Description
Volume (Actions)	objec t	This action is used to establish a replication relationship by assigning an existing volume to serve as a target replica for an existing source volume.
NVMeDomain (Links)	array	An array of links to associated domains.
Volume (Operations)	objec t	A reference to the task associated with the operation if any.
StorageGroup	strin g (enum)	The Authentication method used for the Endpoints involved in this StorageGroup.
DataSecurityLoSCa pabilities (SupportedHostAut henticationTypes), DataSecurityLoSCa pabilities (SupportedUserAut henticationTypes)	strin g (enum)	Enumeration of authentication algorithms.
NVMeDomain	array	A collection of available firmware images.
IOPerformanceLoSC apabilities (SupportedIOWorkl oads > Components)	integ er (byte s)	Average I/O Size for this component.
	NVMeDomain (Links) Volume (Operations) StorageGroup DataSecurityLoSCa pabilities (SupportedHostAut henticationTypes), DataSecurityLoSCa pabilities (SupportedUserAut henticationTypes) NVMeDomain IOPerformanceLoSC apabilities (SupportedIOWorkl	NVMeDomain (Links) array Volume (Operations) objec t StorageGroup strin g (enum) DataSecurityLoSCa pabilities (enum) (SupportedHostAut henticationTypes), DataSecurityLoSCa pabilities (SupportedUserAut henticationTypes) NVMeDomain array IOPerformanceLoSC apabilities (byte s) (SupportedIOWorkl

Property Name	Defined In Schema(s)	Туре	Description
AverageIOO perationLate ncyMicroseco nds	IOPerformanceLine OfService	integ er (us)	Expected average IO latency
BlockSizeB ytes	FileSystem	integ er (byte s)	Block size of the file system in bytes.
	StoragePool	integ er (byte s)	Maximum Block size in bytes.
	Volume	integ er (byte s)	The size of the smallest addressable unit (Block) of this volume in bytes.
CacheDataV olumes	Volume (Links)	array	A pointer to the data volumes this volume serves as a cache volume.
CacheVolum eSource	Volume (Links)	objec t	A pointer to the cache volume source for this volume.
Capacity	FileSystem	objec t	Capacity allocated to the file system.
	StoragePool, Volume	objec t	Capacity utilization.
CapacityBy tes	Volume	integ er (byte s)	The size in bytes of this Volume.
CapacitySo urce	StoragePool (Actions > AddDrives (Action))	objec t	The capacity source to be extended.
CapacitySo urces	FileSystem	array	An array of capacity sources for the file system.
	StoragePool	array	An array of space allocation to this store.
	Volume	array	An array of space allocation to this volume.

Property Name	Defined In Schema(s)	Туре	Description
CasePreser ved	FileSystem	boole an	The case of file names is preserved by the file system.
CaseSensit ive	FileSystem	boole an	Case sensitive file names are supported by the file system
CASupporte d	FileShare	boole an	Continuous Availability is supported. Client/Server mediated recovery from network and server failure with application transparency.
ChangeRAID Layout (Action)	Volume (Actions)	objec t	Request system change the RAID layout of the volume.
ChannelEnc	DataSecurityLineO	strin g	Key size for transport
ryptionStren gth	fService	(enum)	channel encryption.
ChapInfo	StorageGroup	array	The credential information used to authenticate the endpoints in this StorageGroup.
CHAPPasswo rd	StorageGroup (ChapInfo)	strin g	The password for CHAP authentication.
CHAPUser	StorageGroup (ChapInfo)	strin g	The username for CHAP authentication.
CharacterC odeSet	FileSystem	array	An array of the character sets or encodings supported by the file system.
	FileSystem (CharacterCodeSet)	strin g (enum)	Supported character code standards for different alphabets and languages.

Property Name	Defined In Schema(s)	Туре	Description
CheckConsi stency (Action)	Volume (Actions)	objec t	This action is used to force a check of the Volume's parity or redundant data to ensure it matches calculated values
ChildStora geGroups	StorageGroup (Links)	array	Child StorageGroups.
ClassesOfS ervice	StoragePool	objec t	The ClassesOfService supported by this storage pool.
	StorageService	objec t	The ClassesOfService that a storage in this StorageService can support
ClassOfSer vice	FileShare (Links)	objec t	A link to the ClassOfService for this file share.
	FileSystem (Links)	objec t	The ClassOfService of this file system.
	StorageGroup (Links)	objec t	The ClassOfService that all storage in this StorageGroup conforms to.
	Volume (Links)	objec t	The ClassOfService that this storage volume conforms to
**ClassOfSer viceVersion	ClassOfService	strin g	The value identifies the current version of this class of service definition.
ClientEndp ointGroups	StorageGroup	array	Groups of client endpoints in this storage group.
	StorageService	objec t	Client endpoint groups.
ClientEndp oints	Volume (Links)	array	An array of references to the client Endpoints associated with this volume.

Property Name	Defined In Schema(s)	Туре	Description
ClusterSiz eBytes	FileSystem	integ er (byte s)	A value indicating the minimum file allocation size imposed by the file system.
Components	IOPerformanceLoSC apabilities (SupportedIOWorkl oads)	array	An array of IO workload component descriptions.
Compressed	StoragePool	boole an	Indicator of whether or not the StoragePool has compression enabled.
	Volume	boole an	Indicator of whether or not the Volume has compression enabled.
Compressio nEnabled	StoragePool	boole an	Indicates whether or not compression is enabled on the storage pool.
Consistenc yGroupName	ConsistencyGroup (Actions > CreateReplicaTarg et (Action))	strin g	The Name for the new targe consistency group.
Consistenc yGroups	Volume (Links)	array	An array of references to the ConsistencyGroups associated with this volume
	StorageService	objec t	ConsistencyGroups.
Consistenc yMethod	ConsistencyGroup	strin g (enum)	The consistency method used by this group.
Consistenc yType	ConsistencyGroup	strin g (enum)	The consistency type used by this group.

Property Name	Defined In Schema(s)	Туре	Description
ConsumedBy tes	CapacitySource (ProvidedCapacity > Data), CapacitySource (ProvidedCapacity > Metadata), CapacitySource (ProvidedCapacity > Snapshot)	integ er (byte s)	The number of bytes consumed in this data store for this data type.
Correspond ingProfileDe finition	FeaturesRegistry (Features)	strin g	The profile definition that defines the feature.
CreateRepl icas (Action)	DataProtectionLin eOfService (Actions)	objec t	This action creates an on-demand replica.
CreateRepl icaTarget (Action)	ConsistencyGroup (Actions)	objec t	This action is used to create a new consistency group resource to provide expanded data protection through a replica relationship with the specified source consistence group.
	Volume (Actions)	objec t	This action is used to create a new volume resource to provide expanded data protection through a replica relationship with the specified source volume.
Data	CapacitySource (ProvidedCapacity)	objec t	The capacity information relating to the user data.

Property Name	Defined In Schema(s)	Туре	Description
DataProtec tionLinesOfS ervice	ClassOfService	array	A collection of DataProtection line of service elements.
DataProtec tionLoSCapab ilities	StorageService, StorageService (Links)	objec t	The data protection capabilities of this service.
DataSaniti zationPolicy	DataSecurityLineO fService	strin g (enum)	Data sanitization policy.
	DataSecurityLoSCa pabilities (SupportedDataSan itizationPolicies)	strin g (enum)	Types of data sanitization policies.
DataSecuri tyLinesOfSer vice	ClassOfService	array	A collection of DataSecurity line of service elements.
DataSecuri tyLoSCapabil ities	StorageService, StorageService (Links)	objec t	The data security capabilities of this service.
DataStorag eLinesOfServ ice	ClassOfService	array	A collection of DataStorage line of service elements.
DataStorag eLoSCapabili ties	StorageService, StorageService (Links)	objec t	The data storage capabilities of this service.
DataUnitsR ead	StoragePool (NVMeEnduranceGro upProperties > EndGrpLifetime)	integ er	The property contains the total number of data units read from this endurance group.

Property Name	Defined In Schema(s)	Туре	Description
DataUnitsW ritten	StoragePool (NVMeEnduranceGro upProperties > EndGrpLifetime)	integ er	The property contains the total number of data units written from this endurance group.
DedicatedS pareDrives	StoragePool (Links)	array	An array of references to the drives which are dedicated spares for this StoragePool.
	Volume (Links)	array	An array of references to the drives which are dedicated spares for this volume.
Deduplicat ed	StoragePool	boole an	Indicator of whether or not the StoragePool has deduplication enabled.
	Volume	boole an	Indicator of whether or not the Volume has deduplication enabled.
Deduplicat ionEnabled	StoragePool	boole an	Indicates whether or not deduplication is enabled on the storage pool.
DefaultAcc essCapabilit ies	FileShare	array	An array of default access capabilities for the file share. The types of default access can include Read, Write, and/or Execute.
**DefaultCla ssOfService	StorageService, StorageService (Links)	objec t	The default class of service for entities allocated by this storage service.
	StoragePool, StoragePool (Links)	objec t	The default class of service for entities allocated from this storage pool.

Property Name	Defined In Schema(s)	Туре	Description
DefaultCom pressionBeha vior	StoragePool	boole an	Indicates the default deduped behavior applied to the child resource (E.g., volume or storage pool) created out of the storage pool if the "Compressed" property is not set on the create request.
DefaultDed uplicationBe havior	StoragePool	boole an	Indicates the default deduplication behavior applied to the child resource (E.g., volume or storage pool) created out of the storage pool if the "Deduplicated" property is not set on the create request.
DefaultEnc ryptionBehav ior	StoragePool	boole an	Indicates the default deduped behavior applied to the child resource (E.g., volume or storage pool) created out of the storage pool if the "Encrypted" property is not set on the create request.
DeleteTarg etConsistenc yGroup	ConsistencyGroup (Actions > RemoveReplicaRela tionship (Action))	boole an	Indicate whether or not to delete the target consistency group as part of the operation.
DeleteTarg etVolume	Volume (Actions > RemoveReplicaRela tionship (Action))	boole an	Indicate whether or not to delete the target volume as part of the operation.

Property Name	Defined In Schema(s)	Туре	Description
DHChapInfo	StorageGroup	array	The credential information used to authenticate the endpoints in this StorageGroup for DHCHAP.
DisplayNam e	Volume	strin g	A user-configurable string to name the volume.
DomainMemb ers	NVMeDomain	array	The members of the domain
Drives	Volume (Links)	array	An array of references to the drives which contain this volume. This will reference Drives that either wholly or only partly contain this volume.
	Volume (Actions > ChangeRAIDLayout (Action))	array	An array of the drives to be used by the volume.
	StoragePool (Actions > AddDrives (Action))	array	The drive(s) to be added.
	StoragePool (Actions > RemoveDrives (Action))	array	The drive(s) to be removed.
	StorageService	objec t	The set of drives managed by this storage service.
Duration	IOPerformanceLoSC apabilities (SupportedIOWorkl oads > Components)	strin g (seco nds)	Duration that this component is active.
Enable	StoragePool (Actions > SetCompressionSta te (Action))	boole an	This property indicates the desired compression state of the storage pool.

Property Name	Defined In Schema(s)	Туре	Description
	StoragePool (Actions > SetDeduplicationS tate (Action))	boole an	This property indicates the desired deduplication state of the storage pool.
	StoragePool (Actions > SetEncryptionStat e (Action))	boole an	This property indicates the desired encryption state of the storage pool.
**Encrypted	StoragePool	boole an	Indicator of whether or not the StoragePool has encryption enabled.
	Volume	boole an	Is this Volume encrypted.
Encryption Enabled	StoragePool	boole an	Indicates whether or not encryption is enabled on the storage pool.
Encryption Key	StorageService (Actions > SetEncryptionKey (Action))	strin g	The encryption key to set on the storage subsystem.
Encryption Types	Volume	array	The types of encryption used by this Volume.
EndGrpLife time	StoragePool (NVMeEnduranceGro upProperties)	objec t	This property contains the Endurance Group Lifetime properties.
EndpointGr oups	StorageService	objec t	Client and Server endpoint groups.
**Endpoints	StorageService	objec t	Endpoints.

Property Name	Defined In Schema(s)	Туре	Description
EnduranceE stimate	StoragePool (NVMeEnduranceGro upProperties > EndGrpLifetime)	integ er	This property contains an estimate of the total number of data bytes that may be written to the Endurance Group over the lifetime of the Endurance Group assuming a write amplication of 1.
EnduranceG roupIdentifi er	StoragePool (NVMeSetProperties)	strin g	A 16-bit hex value that contains the endurance group identifier.
ErrorInfor mationLogEnt ryCount	StoragePool (NVMeEnduranceGro upProperties > EndGrpLifetime)	integ er	This property contains the number of error information log entries over the life of the controller for the endurance group.
EthernetIn terfaces	FileShare	objec t	A link to the collection of Ethernet interfaces that provide access to this file share.
ExecuteSup port	FileShare	boole an	Execute access is supported by the file share.
ExportedSh ares	FileSystem	objec t	An array of exported file shares of this file system.
ExposeVolu mes (Action)	StorageGroup (Actions)	objec t	Expose the storage volumes of this group.
FailureDom ainScope	DataProtectionLoS Capabilities (SupportedRecover yGeographicObject ives)	strin g (enum)	Values of this enumeration represent a geographic scope of a failure domain.

Property Name	Defined In Schema(s)	Type	Description
FeatureNam e	FeaturesRegistry (Features)	strin g	The Name of the feature.
Features	FeaturesRegistry	array	The pattern property indicates that a free-form string is the unique identification of the feature within the registry.
FileProtoc ol	FileShare (FileSharingProto cols)	strin g (enum)	The file sharing protocols supported by the file system
FileShareP ath	FileShare	strin g	A path to an exported file or directory on the file system where this file share is hosted.
FileShareQ uotaType	FileShare	strin g (enum)	Specifies the type of quota enforcement.
FileShareR emainingQuot aBytes	FileShare	integ er (byte s)	The number of remaining bytes that may be used by this file share.
FileShareT otalQuotaByt es	FileShare	integ er (byte s)	The maximum number of bytes that may be used by this file share.
FileSharin gProtocols	FileShare	array	An array of file sharing protocols supported by this file share.
FileSystem	FileShare (Links)	objec t	A link to the file system containing the file share.
FileSystem s	StorageService	objec t	FileSystems.
FirmwareVe rsion	NVMeFirmwareImage	strin g	The firmware version of the available NVMe firmware image.

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·	roperty contains the er of read commands eted by all controller NVM subsystem for durance Group.

Property Name	Defined In Schema(s)	Туре	Description
**HostWriteC ommandCount	StoragePool (NVMeEnduranceGro upProperties > EndGrpLifetime)	integ er	This property contains the number of write commands completed by all controllers in the NVM subsystem for the Endurance Group.
Identifier	FileSystem (Identifiers), Volume (Identifiers)	objec t	Any additional identifiers for a resource.
	ClassOfService, DataProtectionLoS Capabilities, DataSecurityLoSCa pabilities, DataStorageLoSCap abilities, IOConnectivityLoS Capabilities, IOPerformanceLoSC apabilities, StorageGroup, StoragePool, StorageService	objec t	The value identifies this resource.
Identifier s	Volume	array	The Durable names for the volume.
	FileSystem	array	The durable names for this file system.
ImportedSh ares	FileSystem	array	An array of imported file shares.

Property Name	Defined In Schema(s)	Туре	Description
Initialize (Action)	Volume (Actions)	objec t	This action is used to prepare the contents of the volume for use by the system. If InitializeMethod is not specified in the request body, but the property InitializeMethod is specified, the property InitializeMethod value should be used. If neither is specified, the InitializeMethod should be Foreground.
Initialize Method	Volume	strin g (enum)	Indicates the Initialization Method used for this volume If InitializeMethod is not specified, the InitializeMethod should be Foreground.
	Volume (Actions > Initialize (Action))	strin g (enum)	The type of initialization to be performed.
Initialize Type	Volume (Actions > Initialize (Action))	strin g (enum)	The type of initialization to be performed.
**InitiatorC HAPPassword	StorageGroup (ChapInfo)	strin g	The shared secret for Mutual (2-way) CHAP authentication by the initiator.
InitiatorC HAPUser	StorageGroup (ChapInfo)	strin g	The Initiator username for Mutual (2-way) CHAP authentication by the initiator.

Property Name	Defined In Schema(s)	Туре	Description
IOAccessPa ttern	IOPerformanceLoSC apabilities (SupportedIOWorkl oads > Components)	strin g (enum)	Expected access pattern for this component.
IOConnecti vityLinesOfS ervice	ClassOfService	array	A collection of IOConnectivity line of service elements.
IOConnecti vityLoSCapab ilities	StorageService, StorageService (Links)	objec t	The IO connectivity capabilities of this service.
**IOLimiting IsSupported	IOPerformanceLoSC apabilities	boole an	Limiting IOPS is supported.
IOOperatio nsPerSecondI sLimited	IOPerformanceLine OfService	boole an	Limit the IOPS.
IOPerfMode Enabled	Volume	boole an	Indicates the IO performance mode setting for the volume.
IOPerforma nceLinesOfSe rvice	ClassOfService	array	A collection of IOPerformance line of service elements.
IOPerforma nceLoSCapabi lities	StorageService, StorageService (Links)	objec t	The IO performance capabilities of this service.
IOStatisti cs	FileSystem	objec t	Statistics for this FileSystem
	StoragePool	objec t	Statistics for this StoragePool.
	StorageService	objec t	Statistics for this StorageService.
	Volume	objec t	Statistics for this volume.

Property Name	Defined In Schema(s)	Туре	Description
IOWorkload	IOPerformanceLine OfService	objec t	A description of the expected workload.
IsBootCapa ble	Volume	boole an	This property indicates whether or not the Volume contains a boot image and i capable of booting.
IsConsiste nt	ConsistencyGroup	boole an	This value is true when the consistency group is in a consistent state.
Isisolated	DataProtectionLin eOfService	boole an	The replica is in a separate fault domain.
IsShareabl e	Volume (NVMeNamespacePro perties)	boole an	Indicates the namespace is shareable.
IsSpaceEff icient	DataStorageLineOf Service	boole an	True implies compression o deduplication of storage.
IsThinProv isioned	CapacitySource (ProvidedCapacity)	boole an	Marks that the capacity is not necessarily fully allocated.
Journaling Media	Volume (Links)	objec t	A pointer to the Resource that serves as a journaling media for this volume.
KeySize	DataSecurityLoSCa pabilities (SupportedChannel EncryptionStrengt hs), DataSecurityLoSCa pabilities (SupportedMediaEn cryptionStrengths)	strin g (enum)	Enumeration of Key sizes in a symmetric encryption algorithm, (see NIST SP 800-57 part 1 (http:/csrc.nist.gov/pub lications/nistpubs/800-5 7/sp800-57_part1_rev3 _general.pdf).

Property Name	Defined In Schema(s)	Туре	Description
Language	FeaturesRegistry	strin g	This is the RFC 5646 compliant language code fo the registry.
LBAFormats Supported	Volume (NVMeNamespacePro perties)	array	A list of the LBA format types supported for the namespace, or potential namespaces.
LBAFormatT ype	Volume (NVMeNamespacePro perties > LBAFormatsSupport ed)	strin g (enum)	LBAFormatType is defined in the NVMe specification set. This field indicates the LBA data size supported; implementations may report up to 16 values. For more details refer to the appropriate NVMe specification.
LinesOfSer vice	StorageService	array	The LinesOService defined for this StorageService.
Links	ConsistencyGroup, DataProtectionLoS Capabilities, FileSystem, SpareResourceSet, StorageGroup, StorageService	objec t	Contains links to other resources that are related to this resource.
	Volume	objec t	Contains references to other resources that are related to this resource.
	FileShare, StoragePool	objec t	The links object contains the links to other resources that are related to this resource.

Property Name	Defined In Schema(s)	Туре	Description
	NVMeDomain	objec t	The links to other resources that are related to this resource.
**LocalDHCHA PAuthSecret	StorageGroup (DHChapInfo)	strin g	The local DHCHAP auth secret for DHCHAP authentication.
LogicalUni tNumber	Volume	integ er	Indicates the host-visible LogicalUnitNumber assigned to this Volume.
	StorageGroup (MappedVolumes)	strin g	A SCSI Logical Unit Number for a Volume.
LowSpaceWa rningThresho IdPercents	FileShare	array (%)	An array of low space warning threshold percentages for the file share.
	FileSystem	array (%)	An array of low space warning threshold percentages for the file system.
	StoragePool	array (%)	Low space warning threshold specified in percents.
	Volume	array (%)	Low space warning.
Manufactur er	Volume	strin g	The manufacturer or OEM o this storage volume.
MappedVolu mes	StorageGroup	array	Mapped Volumes in this storage group.
MaxBlockSi zeBytes	Volume	integ er (byte s)	Max Block size in bytes.

Property Name	Defined In Schema(s)	Туре	Description
	StoragePool	integ er (byte s)	Maximum Block size in bytes.
MaxBytesPe rSecond	IOConnectivityLin eOfService	integ er (By/s)	The maximum Bandwidth in bytes per second that a connection can support.
MaxFileNam eLengthBytes	FileSystem	integ er (byte s)	A value indicating the maximum length of a file name within the file system
MaximumCap acityPerEndu ranceGroupBy tes	NVMeDomain	integ er (byte s)	The maximum capacity per endurance group in bytes of this NVMe Domain.
MaximumRec overableCapa citySourceCo unt	DataStorageLoSCap abilities	integ er	Maximum number of capacity source resources for the purpose of recovery from a failure.
MaxIOOpera tionsPerSeco ndPerTerabyt e	IOPerformanceLine OfService	integ er (1/s/ TBy)	The amount of IOPS a volume of a given committed size can support
MaxIOPS	IOConnectivityLin eOfService	integ er ([IO]/s)	The maximum supported IOs per second that the connection will support for the selected access protoco
MaxSampleP eriod	IOPerformanceLoSC apabilities	strin g (seco nds)	Maximum sampling period over which average values are calculated.
MaxSupport edBytesPerSe cond	IOConnectivityLoS Capabilities	integ er (By/s)	The maximum Bandwidth in bytes per second that a connection can support.

Property Name	Defined In Schema(s)	Туре	Description
MaxSupport edIOPS	IOConnectivityLoS Capabilities	integ er ([IO]/s)	The maximum IOPS that a connection can support.
MediaAndDa taIntegrityE rrorCount	StoragePool (NVMeEnduranceGro upProperties > EndGrpLifetime)	integ er	This property contains the number of occurences where the controller detected an unrecovered data integrity error for the Endurance Group.
MediaEncry ptionStrengt h	DataSecurityLineO fService	strin g (enum)	Key size for media encryption.
MediaSpanC ount	Volume	integ er	Indicates the number of media elements used per span in the secondary RAID for a hierarchical RAID type.
	Volume (Actions > ChangeRAIDLayout (Action))	integ er	The requested number of media elements used per span in the secondary RAID for a hierarchical RAID type.
MediaUnits Written	StoragePool (NVMeEnduranceGro upProperties > EndGrpLifetime)	integ er	The property contains the total number of data units written from this endurance group.
Members	HostedStorageServ ices	array	The value of each member references a StorageService resource.
Members@o data.nextLin k	HostedStorageServ ices	strin g	The URI to the resource containing the next set of partial members.
MembersAre Consistent	StorageGroup	boole an	Members are kept in a consistent state.

Property Name	Defined In Schema(s)	Туре	Description
Metadata	CapacitySource (ProvidedCapacity)	objec t	The capacity information relating to metadata.
**MetadataTr ansferredAtE ndOfDataLBA	Volume (NVMeNamespacePro perties)	boole an	This property indicates whether or not the metadat is transferred at the end of the LBA creating an extended data LBA.
MinLifetim e	DataProtectionLin eOfService	strin g	Minimum lifetime (seconds) that replica must be maintained.
MinSampleP eriod	IOPerformanceLoSC apabilities	strin g (seco nds)	Minimum sampling period over which average values are calculated.
MinSupport edIoOperatio nLatencyMicr oseconds	IOPerformanceLoSC apabilities	integ er (us)	Minimum supported averag
Model	Volume	strin g	The model number for this storage volume.
NamespaceF eatures	Volume (NVMeNamespacePro perties)	objec t	This property contains a set of Namespace Features.
Namespacel d	Volume (NVMeNamespacePro perties)	strin g	The NVMe Namespace Identifier for this namespace.
NumberLBAF ormats	Volume (NVMeNamespacePro perties)	integ er (byte s)	The number of LBA data size and metadata size combinations supported by this namespace. The value of this property is between and 16.

Property Name	Defined In Schema(s)	Туре	Description
NVMeDevice Type	NVMeFirmwareImage	strin g (enum)	The type of NVMe Device this image is associated with.
NVMeEndura nceGroupProp erties	StoragePool	objec t	This property contains properties to use when StoragePool is used to describe an NVMe Endurance Group.
NVMeNamesp acePropertie s	Volume	objec t	This property contains properties to use when Volume is used to describe an NVMe Namespace.
NVMePoolTy pe	StoragePool (NVMeProperties)	strin g (enum)	Indicates whether the StoragePool is used as an EnduranceGroup or an NVMSet.
NVMeProper ties	StoragePool	objec t	NVMe properties for this storage pool.
NVMeSetPro perties	StoragePool	objec t	This property contains properties to use when StoragePool is used to describe an NVMe Set.
NVMeVersio n	Volume (NVMeNamespacePro perties)	strin g	The version of the NVMe Base Specification supported.
OnHandLoca tion	SpareResourceSet	objec t	Location where this set of spares is kept.
OnHandSpar es	SpareResourceSet (Links)	array	The type of resources in the set.
OnLine	SpareResourceSet	boole an	This set is available online.
OperationN ame	Volume (Operations)	strin g	The name of the operation.

Property Name	Defined In Schema(s)	Туре	Description
Operations	Volume	array	The operations currently running on the Volume.
**OptimalWri teSizeBytes	StoragePool (NVMeSetProperties)	integ er (byte s)	This property contains the Optimal Write Size in Bytes for this NVMe Set.
OptimumIOS izeBytes	Volume	integ er (byte s)	The size in bytes of this Volume's optimum IO size.
OwningEnti ty	FeaturesRegistry	strin g	This is the organization or company that publishes thi registry.
**OwningStor ageResource	StoragePool (Links)	objec t	A pointer to the Storage resource that owns or contains this StoragePool.
	Volume (Links)	objec t	A pointer to the Storage resource that owns or contains this volume.
OwningStor ageService	Volume (Links)	objec t	A pointer to the StorageService that owns o contains this volume.
ParentStor ageGroups	StorageGroup (Links)	array	Parent StorageGroups.
PeerDHCHAP AuthSecret	StorageGroup (DHChapInfo)	strin g	The peer DHCHAP auth secret for DHCHAP authentication.
Percentage Complete	Volume (Operations)	integ er	The percentage of the operation that has been completed.
PercentOfD ata	IOPerformanceLoSC apabilities (SupportedIOWorkl oads > Components)	integ er (%)	Percent of data for this workload component.

Property Name	Defined In Schema(s)	Туре	Description
PercentOfI OPS	IOPerformanceLoSC apabilities (SupportedIOWorkl oads > Components)	integ er (%)	Percent of total IOPS for this workload component.
PercentUse d	StoragePool (NVMeEnduranceGro upProperties > EndGrpLifetime)	integ er	A vendor-specific estimate of the percent life used for the endurance group based on the actual usage and the manufacturer prediction of NVM life.
PoolType	StoragePool	array	Pool usage type for this storage pool.
PredictedM ediaLifeLeft Percent	StoragePool (NVMeEnduranceGro upProperties)	numbe r (%)	The percentage of reads and writes that are predicted to be available for the media.
ProvidedCa pacity	CapacitySource	objec t	The amount of space that has been provided from the ProvidingDrives, ProvidingVolumes, ProvidingMemory or ProvidingPools.
ProvidedCl assOfService	CapacitySource	objec t	The ClassOfService provided from the ProvidingDrives, ProvidingVolumes, ProvidingMemoryChunks, ProvidingMemory or ProvidingPools.
ProvidingD rives	CapacitySource	objec t	The drive or drives that provide this space.
ProvidingM emory	CapacitySource	objec t	The memory that provides this space.

emoryChunks ProvidingP CapacitySource ools ProvidingV CapacitySource olumes Provisione CapacitySource Objec t The pool or pools that provide this space. Provide this space. The volume or volumes to provide this space. Provisione CapacitySource (ProvidedCapacity > (byte s) Data), CapacitySource (ProvidedCapacity > Metadata), CapacitySource (ProvidedCapacity > Snapshot) Provisioni DataStorageLineOf strin g DataStorageLoSCap abilities (SupportedProvisi oningPolicies), StoragePool (SupportedProvisi oningPolicies) Volume strin g This property specifies the strin g This property specifies the spe				
emoryChunks ProvidingP CapacitySource ools ProvidingV CapacitySource olumes Provisione CapacitySource (ProvidedCapacity > Data), CapacitySource (ProvidedCapacity > Metadata), CapacitySource (ProvidedCapacity > Snapshot) Provisioni DataStorageLineOf ngPolicy Service DataStorageLoSCap abilities (SupportedProvisi oningPolicies), StoragePool (SupportedProvisi oningPolicies) Volume RAIDType Volume CapacitySource objec t The pool or pools that provide this space. The volume or volumes to provide this space. The volume or volumes to provide this space. The volume or volumes that provide this space. The volume or volumes to be ject to the volume or volume storage. The volume or volumes that provide this space. The volume or volume is the volume or volume is that can be allocated in this data store for this data type. The maximum number of the volume is the volume or volume is that can be allocated in this space. The volume or volume is the	Property Name	Defined In Schema(s)	Туре	Description
oolsprovide this space.ProvidingVCapacitySourceobjectThe volume or volumes to provide this space.ProvisioneCapacitySourceintegerThe maximum number of bytes that can be allocated in this data store for this data store for this data store for this data type.dBytes(ProvidedCapacity > Data), (ProvidedCapacity > Metadata), CapacitySource (ProvidedCapacity > Snapshot)strin g (enum)Provisioning policy for storage.ProvisioniDataStorageLineOf Servicestrin g (enum)Space provisioning policy for storage.DataStorageLoSCap abilities (SupportedProvisi oningPolicies), StoragePool (SupportedProvisi oningPolicies)Strin g (enum)This property specifies the common volume's storage allocated or provisioning policy.RAIDTypeVolumestrin gThe RAID type of this	•	CapacitySource	objec t	The memory chunks that provide this space.
Provisione CapacitySource integ er (byte s) The maximum number of bytes that can be allocated in this data store for this data store for this data type. Data), CapacitySource (ProvidedCapacity > Metadata), CapacitySource (ProvidedCapacity > Snapshot) Metadata), CapacitySource (ProvidedCapacity > Snapshot) Provisioni padicity DataStorageLineOf strin gabilities (enum) storage. Provisioning policy for gabilities (enum) (SupportedProvisi oningPolicies), StoragePool (SupportedProvisi oningPolicies) (supportedProvisi oningPolicies) Volume strin gatrin gat		CapacitySource	objec t	
dBytes (ProvidedCapacity > (byte s) bytes that can be allocated in this data store for this data type. (ProvidedCapacity > Metadata), CapacitySource (ProvidedCapacity > Metadata), CapacitySource (ProvidedCapacity > Snapshot) Provisioni DataStorageLineOf string provisioning policy for storage. DataStorageLoSCap string storage. DataStorageLoSCap string space provisioning policy for storage. (SupportedProvisi oningPolicies), StoragePool (SupportedProvisi oningPolicies) Volume string This property specifies the volume's storage allocated or provisioning policy. RAIDType Volume string The RAID type of this		CapacitySource	objec t	The volume or volumes that provide this space.
ngPolicy Service (enum) storage. DataStorageLoSCap strin g Space provisioning policy abilities (enum) (SupportedProvisi oningPolicies), StoragePool (SupportedProvisi oningPolicies) Volume strin g This property specifies the (enum) volume's storage allocate or provisioning policy. RAIDType Volume strin g The RAID type of this		(ProvidedCapacity > Data), CapacitySource (ProvidedCapacity > Metadata), CapacitySource (ProvidedCapacity >	•	The maximum number of bytes that can be allocated in this data store for this data type.
(enum) volume's storage allocat or provisioning policy. RAIDType Volume string The RAID type of this		Service DataStorageLoSCap abilities (SupportedProvisi oningPolicies), StoragePool (SupportedProvisi	(enum) strin g	
3.			(enum)	
	RAIDType	Volume	Ū	· ·

Property Name	Defined In Schema(s)	Туре	Description
	Volume (Actions > ChangeRAIDLayout (Action))	strin g (enum)	The requested RAID type for the volume.
Random4kRe adTypicalNan oSeconds	StoragePool (NVMeSetPropertie s)	integ er	Indicates the typical time to complete a 4k read in 100 nano-second units when the NVM Set is in a Predictable Latency Mode Deterministic Window and there is 1 outstanding command per NVM Set.
ReadCacheP olicy	Volume	strin g (enum)	Indicates the read cache policy setting for the Volume.
Recoverabl eCapacitySou rceCount	FileSystem, StoragePool, Volume	integ er	Current number of capacity source resources that are available as replacements.
	DataStorageLineOf Service	integ er	Required minimum number of available capacity source resources.
RecoveryAc cessScope	DataProtectionLoS Capabilities (SupportedRecover yTimeObjectives), DataStorageLoSCap abilities (SupportedRecover yTimeObjectives)	strin g (enum)	An enumeration that represents the relative time required to make a replica available as a source.
RecoveryGe ographicObje ctive	DataProtectionLin eOfService	strin g (enum)	Geographic distribution scopes.

Property Name	Defined In Schema(s)	Туре	Description
RecoveryPo intObjective Time	DataProtectionLin eOfService	strin g	Time interval defining how much source data that can be lost on failure.
**RecoveryTi meObjective	DataProtectionLin eOfService	strin g (enum)	An enumeration value that indicates the expected time to access an alternate replica.
RecoveryTi meObjectives	DataStorageLineOf Service	strin g (enum)	Expectations for time to access the primary store after disaster recover.
Redundancy	StorageService	array	Redundancy information fo the storage subsystem.
RegistryPr efix	FeaturesRegistry	strin g	This is the single word prefiture ID structure.
RegistryVe rsion	FeaturesRegistry	strin g	This is the feature registry version which is used in the middle portion of a Feature ID.
RemainingC apacity	FileSystem	objec t	Remaining capacity allocated to the file system.
RemainingC apacityPerce nt	FileShare	integ er	The percentage of the capacity remaining in the FileShare.
	FileSystem	integ er	The percentage of the capacity remaining in the FileSystem.
	StoragePool	integ er	The percentage of the capacity remaining in the StoragePool.

Property Name	Defined In Schema(s)	Type	Description
	Volume	integ er	The percentage of the capacity remaining in the Volume.
RemoteRepl icaTargets	ConsistencyGroup, Volume	array	URIs to the resources that are remote target replicas o this source.
RemoveDriv es (Action)	StoragePool (Actions)	objec t	This action is used to remove drive(s) from the capacity source for the StoragePool.
RemoveRepl icaRelations hip (Action)	ConsistencyGroup (Actions)	objec t	This action is used to disable data synchronization between a source and targe consistency group, remove the replication relationship and optionally delete the target consistency group.
	Volume (Actions)	objec t	This action is used to disable data synchronization between a source and target volume, remove the replication relationship, and optionally delete the target volume.
Replacemen tSpareSets	SpareResourceSet (Links)	array	Other spare sets that can be utilized to replenish this spare set.
**ReplicaAcc essLocation	DataProtectionLin eOfService	objec t	Location that supplies data access to the replica.
**ReplicaCla ssOfService	DataProtectionLin eOfService	objec t	The replica's class of service

Property Name	Defined In Schema(s)	Туре	Description
ReplicaCol lection	FileSystem (Links)	array	An array of links to replicas for this file system.
ReplicaInf o	ConsistencyGroup, StorageGroup	objec t	Describes this storage group in its role as a target for replication.
	Volume	objec t	Describes this storage volume in its role as a target replica.
	FileSystem	objec t	This value describes the replica attributes if this file system is a replica.
ReplicaLin eOfService	DataProtectionLin eOfService (Actions > CreateReplicas (Action))	objec t	The data protection line of service this action is bound to.
ReplicaNam e	DataProtectionLin eOfService (Actions > CreateReplicas (Action) > ReplicaRequests)	strin g	The name of the new replica.
ReplicaReq uests	DataProtectionLin eOfService (Actions > CreateReplicas (Action))	array	Specifies the resources to replicate and a name for the replica.
ReplicaSou rce	DataProtectionLin eOfService (Actions > CreateReplicas (Action) > ReplicaRequests)	objec t	A resource to be replicated.

Property Name	Defined In Schema(s)	Туре	Description
ReplicaTar gets	ConsistencyGroup, FileSystem, StorageGroup, Volume	array	The resources that are target replicas of this source.
ReplicaTyp e	ConsistencyGroup (Actions > AssignReplicaTarg et (Action)), ConsistencyGroup (Actions > CreateReplicaTarg et (Action))	strin g (enum)	The type of replica relationship to be created (e.g., Clone, Mirror, Snap).
	Volume (Actions > AssignReplicaTarg et (Action)), Volume (Actions > CreateReplicaTarg et (Action))	strin g (enum)	The type of replica relationship to be created.
	DataProtectionLin eOfService	strin g (enum)	Type of replica.
	DataProtectionLoS Capabilities (SupportedReplica Types)	strin g (enum)	Values of ReplicaType describe the intended outcome of the replication.

Property Name	Defined In Schema(s)	Type	Description
ReplicaUpd ateMode	ConsistencyGroup (Actions > AssignReplicaTarg et (Action)), ConsistencyGroup (Actions > CreateReplicaTarg et (Action)), Volume (Actions > AssignReplicaTarg et (Action)), Volume (Actions > CreateReplicaTarg et (Action))	strin g (enum)	The replica update mode (synchronous vs asynchronous).
ResourceTy pe	SpareResourceSet	strin g	The type of resources in the set.
ResumeRepl ication (Action)	ConsistencyGroup (Actions)	objec t	This action is used to resume the active data synchronization between a source and target consistency group, without otherwise altering the replication relationship.
	Volume (Actions)	objec t	This action is used to resume the active data synchronization between a source and target volume, without otherwise altering the replication relationship.

Property Name	Defined In Schema(s)	Туре	Description
ReverseRep licationRela tionship (Action)	ConsistencyGroup (Actions)	objec t	This action is used to revers the replication relationship between a source and targe consistency group.
	Volume (Actions)	objec t	This action is used to reverse the replication relationship between a source and target volume.
RootAccess	FileShare	boole an	Root access is allowed by the file share.
SamplePeri od	IOPerformanceLine OfService	strin g	Sampling period over which average values are calculated.
Schedule	DataProtectionLin eOfService	objec t	A schedule for making periodic point in time replicas.
	IOPerformanceLoSC apabilities (SupportedIOWorkl oads > Components)	objec t	Specifies when to apply this workload component.
**SecureChan nelProtocol	DataSecurityLineO fService	strin g (enum)	Protocol that provide encrypted communication.
	DataSecurityLoSCa pabilities (SupportedSecureC hannelProtocols)	strin g (enum)	Types of Secure channel protocols.
ServerEndp ointGroups	StorageGroup	array	Groups of server endpoints in this storage group.
	StorageService	objec t	Server endpoint groups.

Property Name	Defined In Schema(s)	Type	Description
ServerEndp oints	Volume (Links)	array	An array of references to the server Endpoints associated with this volume.
SetCompres sionState (Action)	StoragePool (Actions)	objec t	This action is used to set the compression state of the pool.
SetDedupli cationState (Action)	StoragePool (Actions)	objec t	This action is used to set the dedupe state of the pool.
SetEncrypt ionKey (Action)	StorageService (Actions)	objec t	This action is used to set the encryption key for the storage subsystem.
SetEncrypt ionState (Action)	StoragePool (Actions)	objec t	This action is used to set the encryption state of the pool.
SetIdentif ier	StoragePool (NVMeSetProperties)	strin g	A 16-bit hex value that contains the NVMe Set group identifier.
Snapshot	CapacitySource (ProvidedCapacity)	objec t	The capacity information relating to snapshot or backup data.
SpareResou rceSets	FileSystem (Links), StoragePool (Links), Volume (Links)	array	An array of references to SpareResourceSets.
	StorageService	array	An array of SpareResourceSets.

Property Name	Defined In Schema(s)	Туре	Description
SplitRepli cation (Action)	ConsistencyGroup (Actions)	objec t	This action is used to split the replication relationship and suspend data synchronization between a source and target consistency group.
	Volume (Actions)	objec t	This action is used to split the replication relationship and suspend data synchronization between a source and target volume.
Status	FileShare	objec t	Indicates the status of the file share.
	ConsistencyGroup	objec t	The property contains the status of the ConsistencyGroup.
	StorageGroup	objec t	The property contains the status of the StorageGroup.
	StoragePool	objec t	The property contains the status of the StoragePool.
	StorageService	objec t	The property contains the status of the StorageService
	Volume	objec t	The property contains the status of the Volume.
	NVMeDomain	objec t	The status and health of the resource and its subordinat or dependent resources.

Property Name	Defined In Schema(s)	Туре	Description
StorageAcc essCapabilit y	DataStorageLineOf Service (AccessCapabiliti es), DataStorageLoSCap abilities (SupportedAccessC apabilities), FileShare (DefaultAccessCap abilities), FileSystem (AccessCapabiliti es), Volume (AccessCapabiliti es)	strin g (enum)	Values of StorageAccessCapability describe abilities to read or write storage.
StorageGro ups	Volume (Links)	array	An array of references to the StorageGroups associated with this volume.
	Volume	objec t	An array of references to Storage Groups that includes this volume.
	StorageService	objec t	StorageGroups.
StoragePoo ls	StorageService	objec t	StoragePools.
StorageSub systems	StorageService	objec t	A reference to storage subsystems managed by thi storage service.
StripSizeB ytes	Volume (Actions > ChangeRAIDLayout (Action))	integ er	The number of blocks (bytes requested for new strip size.
	Volume	integ er (byte s)	The number of blocks (bytes in a strip in a disk array that uses striped data mapping.

Property Name	Defined In Schema(s)	Туре	Description
SupportedA ccessCapabil ities	DataStorageLoSCap abilities	array	Supported access capabilities.
SupportedA ccessProtoco ls	IOConnectivityLoS Capabilities	array	SupportedAccessProtocols
**SupportedA ntivirusEngi neProviders	DataSecurityLoSCa pabilities	array	Supported AntiVirus providers.
SupportedA ntivirusScan Policies	DataSecurityLoSCa pabilities	array	Supported policies that trigger an AntiVirus scan.
SupportedC hannelEncryp tionStrength s	DataSecurityLoSCa pabilities	array	Supported key sizes for transport channel encryption.
**SupportedD ataSanitizat ionPolicies	DataSecurityLoSCa pabilities	array	Supported data sanitization policies.
SupportedH ostAuthentic ationTypes	DataSecurityLoSCa pabilities	array	Supported authentication types for hosts (servers) or initiator endpoints.
SupportedI OWorkloads	IOPerformanceLoSC apabilities	array	A collection of supported workloads.
SupportedL inesOfServic e	DataProtectionLoS Capabilities	array	Collection of known and supported DataProtectionLinesOfSer vice.
	DataSecurityLoSCa pabilities	array	Collection of known and supported DataSecurityLinesOfService

Property Name	Defined In Schema(s)	Туре	Description
	DataStorageLoSCap abilities	array	Collection of known and supported DataStorageLinesOfServic e.
	IOConnectivityLoS Capabilities	array	Collection of known and supported IOConnectivityLinesOfSer vice.
	IOPerformanceLoSC apabilities	array	Collection of known and supported IOPerformanceLinesOfService.
**SupportedM ediaEncrypti onStrengths	DataSecurityLoSCa pabilities	array	Supported key sizes for media encryption.
**SupportedM inLifetimes	DataProtectionLoS Capabilities	array	Supported minimum lifetime that replica must be maintained.
SupportedP oolTypes	StoragePool	array	A collection of the Pool Types supported by the storage pool.
SupportedP rovisioningP olicies	DataStorageLoSCap abilities	array	Thin allows over allocation of storage.
	StoragePool	array	This collection specifies all supported storage allocation properties for the Storage Pool.
SupportedR AIDTypes	StoragePool	array	A collection of the RAID Types supported by the storage pool.

Property Name	Defined In Schema(s)	Type	Description
SupportedR ecoveryGeogr aphicObjecti ves	DataProtectionLoS Capabilities	array	Supported types of failure domains.
SupportedR ecoveryPoint ObjectiveTim es	DataProtectionLoS Capabilities	array	Supported time intervals defining how much source information can be lost on failure.
SupportedR ecoveryTimeO bjectives	DataProtectionLoS Capabilities	array	Supported expectations for time to access an alternate replica.
	DataStorageLoSCap abilities	array	Supported expectations for time to access the primary store after recovery.
SupportedR eplicaOption s	DataProtectionLoS Capabilities (Links)	array	Collection of known and supported replica Classes of Service.
**SupportedR eplicaTypes	DataProtectionLoS Capabilities	array	Supported replica types.
SupportedS ecureChannel Protocols	DataSecurityLoSCa pabilities	array	Supported protocols that provide encrypted communication.
SupportedU serAuthentic ationTypes	DataSecurityLoSCa pabilities	array	Supported authentication types for users (or programs).

Property Name	Defined In Schema(s)	Туре	Description
SupportsAt omicTransact ionSize	Volume (NVMeNamespacePro perties > NamespaceFeatures)	boole an	Indicates that the NVM fields for Namespace preferred write granularity (NPWG), write alignment (NPWA), deallocate granularity (NPDG), deallocate alignment (NPDA) and optimal write size (NOWS) are defined for this namespace and should be used by the host for I/O optimization.
SupportsDe allocatedOrU nwrittenLBEr ror	Volume (NVMeNamespacePro perties > NamespaceFeatures)	boole an	This property indicates that the controller supports deallocated or unwritten logical block error for this namespace.
SupportsIO PerformanceH ints	Volume (NVMeNamespacePro perties > NamespaceFeatures)	boole an	Indicates that the Namespace Atomic Write Unit Normal (NAWUN), Namespace Atomic Write Unit Power Fail (NAWUPF), and Namespace Atomic Compare and Write Unit (NACWU) fields are defined for this namespace and should be used by the host for this namespace instead of the controller-level properties AWUN, AWUPF, and ACWU.

Property Name	Defined In Schema(s)	Туре	Description
SupportsIs olated	DataProtectionLoS Capabilities	boole an	Allocating a replica in a separate fault domain is supported.
SupportsNG UIDReuse	Volume (NVMeNamespacePro perties > NamespaceFeatures)	boole an	This property indicates that the namespace supports the use of an NGUID (namespac globally unique identifier) value.
SupportsSp aceEfficienc y	DataStorageLoSCap abilities	boole an	Allows compression or deduplication of storage.
SupportsTh inProvisioni ng	Volume (NVMeNamespacePro perties > NamespaceFeatures)	boole an	This property indicates whether or not the NVMe Namespace supports thin provisioning.
SuspendRep lication (Action)	ConsistencyGroup (Actions)	objec t	This action is used to suspend active data synchronization between a source and target consistency group, without otherwise altering the replication relationship.
	Volume (Actions)	objec t	This action is used to suspend active data synchronization between a source and target volume, without otherwise altering the replication relationship.
TargetCHAP Password	StorageGroup (ChapInfo)	strin g	The Target CHAP Secret for Mutual (2-way) CHAP authentication by the target

Property Name	Defined In Schema(s)	Type	Description
TargetCHAP User	StorageGroup (ChapInfo)	strin g	The Target CHAP Username for Mutual (2-way) CHAP authentication by the target
TargetCons istencyGroup	ConsistencyGroup (Actions > AssignReplicaTarg et (Action)), ConsistencyGroup (Actions > RemoveReplicaRela tionship (Action)), ConsistencyGroup (Actions > ResumeReplication (Action)), ConsistencyGroup (Actions > ReverseReplicatio nRelationship (Action)), ConsistencyGroup (Actions > SplitReplication (Action)), ConsistencyGroup (Actions > SplitReplication (Action)), ConsistencyGroup (Actions > SuspendReplication (Action))	strin g	The Uri to the existing target consistency group.
TargetPass word	StorageGroup (ChapInfo)	strin g	This property is deprecated in favor of TargetCHAPPassword.

Property Name	Defined In Schema(s)	Туре	Description
TargetStor agePool	ConsistencyGroup (Actions > CreateReplicaTarg et (Action)), Volume (Actions > CreateReplicaTarg et (Action))	strin g	The Uri to the existing target Storage Pool.
TargetVolu me	Volume (Actions > AssignReplicaTarg et (Action)), Volume (Actions > RemoveReplicaRela tionship (Action)), Volume (Actions > ResumeReplication (Action)), Volume (Actions > ReverseReplicatio nRelationship (Actions), Volume (Actions > SplitReplication (Action)), Volume (Actions > SuspendReplication (Action))	strin g	The Uri to the existing target volume.
TimeToProv ision	SpareResourceSet	strin g	Amount of time needed to make an on-hand resource available as a spare.
TimeToRepl enish	SpareResourceSet	strin g	Amount of time needed to get more on-hand resources.

Property Name	Defined In Schema(s)	Туре	Description
TotalDomai nCapacityByt es	NVMeDomain	integ er (byte s)	The total capacity in bytes of this NVMe Domain.
Unallocate dDomainCa- pac ityBytes	NVMeDomain	integ er (byte s)	The total unallocated capacity in bytes of this NVMe Domain.
Unallocate dNVMNames- pac eCapacityByt es	StoragePool (NVMeSetPropertie s)	integ er (byte s)	Indicates the unallocated capacity of the NVMe Set in bytes.
UserAuthen ticationType	DataSecurityLineO fService	strin g (enum)	Authentication type for users (or programs).
Vendor	NVMeFirmwareImage	strin g	The vendor or manufacturer associated with this NVMe firmware image.
Version	FeaturesRegistry (Features)	strin g	The Version of the feature.
Volume	StorageGroup (MappedVolumes)	objec t	A mapped Volume.
VolumeName	Volume (Actions > CreateReplicaTarg et (Action))	strin g	The Name for the new target volume.
Volumes	ConsistencyGroup, StorageGroup	array	Volumes in this storage group.
	StorageService	objec t	Volumes.
VolumesAre Exposed	StorageGroup	boole an	Storage volumes are exposed to paths defined by the client and server endpoints.

Property Name	Defined In Schema(s)	Type	Description
VolumeType	Volume	strin g (enum)	The type of this volume.
VolumeUsag e	Volume	strin g (enum)	Indicates the Volume usage type setting for the Volume.
WriteCache Policy	Volume	strin g (enum)	Indicates the write cache policy setting for the Volume.
WriteCache State	Volume	strin g (enum)	Indicates the WriteCacheState policy setting for the Volume.
WriteHoleP rotectionPol icy	Volume	strin g (enum)	The policy that the RAID volume is using to address the write hole issue.
WritePolic y	FileShare	strin g (enum)	Defines how writes are replicated to the shared source.