Swordfish Property Guide

Version: 1.2.2a

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

SNIA Approved Publication

Last Updated: 14 June 2021

Contents

List of Tables

USAGE

DISCLAIMER

Current Revision

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

Contact SNIA

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

FEEDBACK AND INTERPRETATIONS

Requests for interpretation, suggestions for improvement and addenda, or de-
fect reports are welcome. They should be sent via the SNIA Feedback Portal at

http://www.snia.org/feedback/ or by mail to the Storage Networking Industry Association, 4360 ArrowsWest Drive, Colorado Springs, Colorado 80907, U.S.A.

INTENDED AUDIENCE

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

VERSIONING POLICY

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.

Version Number: Versioned material having version number 'v' shall be backwards compatible with all of revisions of that material that have the same version number 'v'. There is no assurance of interoperability or backward compatibility between revisions of a versioned material with different version numbers.

Release Number: Versioned material with a version number 'v' and release number 'r' shall be backwards compatible with previous revisions of the material with the same version number, and a lower release number. A minor revision represents a technical change to existing content or an adjustment to the scope of the versioned material. Each minor revision causes the release number to be increased by one.

Errata Number: Versioned material having version number 'v', a release number 'r', and an errata number 'e' should be backwards compatible with previous revisions of the material with the same version number and release number ("errata versions"). An errata revision of versioned material is limited to minor corrections or clarifications of existing versioned material. An errata revision may be backwards incompatible, if the incompatibility is necessary for correct operation of implementations of the versioned material.

0.0.1 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

About SNIA

The Storage Networking Industry Association (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 include:

Column	Purpose
Property Name	The name of the JSON property as it appears, case sensitive, in the JSON payload.
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.
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.

2 Property Index

Property Name	Defined In Schema(s)	Type	Description
Acces sCapabilities	FileSystem	array	An array of supported IO access capabilities.
	DataStora geLineOfService	array	Required access capabilities.
	Volume	array	Supported IO access capabilities.
Acc essCapability	StorageGroup (MappedVolumes)	string (enum)	Supported IO access capability.
Ac cessProtocols	IOConnectivi tyLineOfService	array	SupportedA ccessProtocols.
AccessState	StorageGroup	string (enum)	AccessState for this storage group.
Actions	*various* (CapacitySource, ClassOfService …)	object	The available actions for this resource.
AddDrives (Action)	StoragePool (Actions)	object	This action is used to add an additional drive, or set of drives, to a capacity source for the storage pool.
A llocatedBytes	CapacitySource (P rovidedCapacity > Data), CapacitySource (P rovidedCapacity > Metadata), CapacitySource (P rovidedCapacity > Snapshot)	integer (bytes)	The number of bytes currently allocated by the storage system in this data store for this data type.

Property Name	Defined In Schema(s)	Type	Description
A llocatedPools	StoragePool	object	A reference to the collection of storage pools allocated from this storage pool.
	Volume	object	An array of references to StoragePools allocated from this Volume.
All ocatedVolumes	StoragePool	object	A reference to the collection of volumes allocated from this storage pool.
AntivirusE ngineProvider	DataSecuri tyLineOfService	string	AntiVirus provider.
Antiviru sScanPolicies	DataSecuri tyLineOfService	array	Policy for triggering an AntiVirus scan.
AntiVir usScanTrigger	DataSecuri tyLineOfService (Antiviru sScanPolicies), DataSecurity LoSCapabilities (S upportedAntivir usScanPolicies)	string (enum)	Types of antivirus scan triggers.

Property Name	Defined In Schema(s)	Type	Description
Assi gnReplicaTarget (Action)	C onsistencyGroup (Actions)	object	This action is used to establish a replication relationship by assigning an existing consistency group to serve as a target replica for an existing source consistency group.
	Volume (Actions)	object	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.
Asso ciatedDomains	NVMeDomain (Links)	array	An array of links to associated domains.
AssociatedFea turesRegistry	Volume (Operations)	object	A reference to the task associated with the operation if any.
Authent icationMethod	StorageGroup	string (enum)	The Authentication method used for the Endpoints involved in this StorageGroup.

Property Name	Defined In Schema(s)	Type	Description
Authe nticationType	DataSecurity LoSCapabilities (Supp ortedHostAuthen ticationTypes), DataSecurity LoSCapabilities (Sup portedUserAuthe nticationTypes)	string (enum)	Enumeration of authentication algorithms.
AvailableF irmwareImages	NVMeDomain	array	A collection of available firmware images.
A verageIOBytes	IOPerformance LoSCapabilities (Suppo rtedIOWorkloads > Components)	integer (bytes)	Average I/O Size for this component.
AverageIO OperationLatenc yMicroseconds	IOPerforman ceLineOfService	integer (us)	Expected average IO latency.
B lockSizeBytes	FileSystem	integer (bytes)	Block size of the file system in bytes.
	StoragePool	integer (bytes)	Maximum Block size in bytes.
	Volume	integer (bytes)	The size of the smallest addressable unit (Block) of this volume in bytes.

Property Name	Defined In Schema(s)	Type	Description
Cac heDataVolumes	Volume (Links)	array	A pointer to the data volumes this volume serves as a cache volume.
Cach eVolumeSource	Volume (Links)	object	A pointer to the cache volume source for this volume.
Capacity	FileSystem	object	Capacity allocated to the file system.
	StoragePool, Volume	object	Capacity utilization.
CapacityBytes	Volume	integer (bytes)	The size in bytes of this Volume.
C apacitySource	StoragePool (Actions > AddDrives (Action))	object	The capacity source to be extended.
Ca pacitySources	FileSystem	array	An array of capacity sources for the file system.
	StoragePool	array	An array of space allocations to this store.
	Volume	array	An array of space allocations to this volume.
CasePreserved	FileSystem	boolean	The case of file names is preserved by the file system.
CaseSensitive	FileSystem	boolean	Case sensitive file names are supported by the file system.

Property Name	Defined In Schema(s)	Type	Description
CASupported	FileShare	boolean	Continuous Availability is supported. Client/Server mediated recovery from network and server failure with application transparency.
C hangeRAIDLay-out (Action)	Volume (Actions)	object	Request system change the RAID layout of the volume.
ChannelEncry ptionStrength	DataSecuri tyLineOfService	string (enum)	Key size for transport channel encryption.
ChapInfo	StorageGroup	array	The credential information used to authenticate the endpoints in this StorageGroup.
• *CHAPPassword(*ChapInfo)	StorageGroup	string	The password for CHAP authentication.
CHAPUser	StorageGroup (ChapInfo)	string	The username for CHAP authentication.
Cha racterCodeSet	FileSystem	array	An array of the character sets or encodings supported by the file system.

Property Name	Defined In Schema(s)	Type	Description
	FileSystem (CharacterCodeSet)	string (enum)	Supported character code standards for different alphabets and languages.
CheckConsistency (Action)	Volume (Actions)	object	This action is used to force a check of the Volume's parity or redundant data to ensure it matches calculated values.
Child StorageGroups	StorageGroup (Links)	array	Child StorageGroups.
Cla ssesOfService	StoragePool	object	The ClassesOfService supported by this storage pool.
	StorageService	object	The ClassesOfService that all storage in this StorageService can support.
C lassOfService	FileShare (Links)	object	A link to the ClassOfService for this file share.
	FileSystem (Links)	object	The ClassOfService of this file system.
	StorageGroup (Links)	object	The ClassOfService that all storage in this StorageGroup conforms to.

Property Name	Defined In Schema(s)	Type	Description
	Volume (Links)	object	The ClassOfService that this storage volume conforms to.
ClassOfS erviceVersion	ClassOfService	string	The value identifies the current version of this class of service definition.
ClientE ndpointGroups	StorageGroup	array	Groups of client endpoints in this storage group.
	StorageService	object	Client endpoint groups.
Cl ientEndpoints	Volume (Links)	array	An array of references to the client Endpoints associated with this volume.
Clu sterSizeBytes	FileSystem	integer (bytes)	A value indicating the minimum file allocation size imposed by the file system.
Components	IOPerformance LoSCapabilities (Suppor tedIOWorkloads)	array	An array of IO workload component descriptions.
Compressed	StoragePool	boolean	Indicator of whether or not the StoragePool has compression enabled.

Property Name	Defined In Schema(s)	Type	Description
	Volume	boolean	Indicator of whether or not the Volume has compression enabled.
Compr essionEnabled	StoragePool	boolean	Indicates whether or not compression is enabled on the storage pool.
Consist encyGroupName	C onsistencyGroup (Actions > Crea teReplicaTarget (Action))	string	The Name for the new target consistency group.
Cons istencyGroups	Volume (Links)	array	An array of references to the Co nsistencyGroups associated with this volume.
	StorageService	object	Con sistencyGroups.
Cons istencyMethod	C onsistencyGroup	string (enum)	The consistency method used by this group.
Co nsistencyType	C onsistencyGroup	string (enum)	The consistency type used by this group.

Property Name	Defined In Schema(s)	Type	Description
ConsumedBytes	CapacitySource (ProvidedCapacity > Data), CapacitySource (ProvidedCapacity > Metadata), CapacitySource (ProvidedCapacity > Snapshot)	integer (bytes)	The number of bytes consumed in this data store for this data type.
• *CreateReplicas (Action)**	DataProtectionLineOfService (Actions)	object	This action creates an on-demand replica.
CreateReplicaTarget (Action)	ConsistencyGroup (Actions)	object	This action is used to create a new consistency group resource to provide expanded data protection through a replica relationship with the specified source consistency group.
	Volume (Actions)	object	This action is used to create a new volume resource to provide expanded data protection through a replica relationship with the specified source volume.

Property Name	Defined In Schema(s)	Type	Description
Data	CapacitySource (ProvidedCapacity)	object	The capacity information relating to the user data.
DataProtectionLinesOfService	ClassOfService	array	A collection of DataProtection line of service elements.
D ataProtectionLoSCapabilities	StorageService, StorageService (Links)	object	The data protection capabilities of this service.
DataSanitizationPolicy	DataSecurityLineOfService	string (enum)	Data sanitization policy.
	DataSecurity LoSCapabilities (Supp ortedDataSanitizationPolicies)	string (enum)	Types of data sanitization policies.
DataSecurityLinesOfService	ClassOfService	array	A collection of DataSecurity line of service elements.
• *DataSecurityLoSCapabili- ties**	StorageService, StorageService (Links)	object	The data security capabilities of this service.
DataStorageLinesOfService	ClassOfService	array	A collection of DataStorage line of service elements.
DataStorageLoSCapabilities	StorageService, StorageService (Links)	object	The data storage capabilities of this service.

Property Name	Defined In Schema(s)	Type	Description
DataUnitsRead	StoragePool (NVMeEndurance GroupProperties > EndGrpLifetime)	integer	The property contains the total number of data units read from this endurance group.
Dat aUnitsWritten	StoragePool (NVMeEndurance GroupProperties > EndGrpLifetime)	integer	The property contains the total number of data units written from this endurance group.
Dedicat edSpareDrives	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.
• *Deduplicated**	StoragePool	boolean	Indicator of whether or not the StoragePool has deduplication enabled.
	Volume	boolean	Indicator of whether or not the Volume has deduplication enabled.

Property Name	Defined In Schema(s)	Type	Description
Dedupli cationEnabled	StoragePool	boolean	Indicates whether or not deduplication is enabled on the storage pool.
DefaultAcces sCapabilities	FileShare	array	An array of default access capabilities for the file share. The types of default access can include Read, Write, and/or Execute.
DefaultC lassOfService	StorageService, StorageService (Links)	object	The default class of service for entities allocated by this storage service.
	StoragePool, StoragePool (Links)	object	The default class of service for entities allocated from this storage pool.
DefaultCompre ssionBehavior	StoragePool	boolean	Indicates the default dedupe 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.

Property Name	Defined In Schema(s)	Type	Description
DefaultDeduplicationBehavior	StoragePool	boolean	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.
DefaultEncryptionBehavior	StoragePool	boolean	Indicates the default dedupe 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.
DeleteTargetConsistencyGroup	C onsistencyGroup (Actions > RemoveReplicaRelationship (Action))	boolean	Indicate whether or not to delete the target consistency group as part of the operation.

Property Name	Defined In Schema(s)	Type	Description
Delet eTargetVolume	Volume (Actions > RemoveRepl icaRelationship (Action))	boolean	Indicate whether or not to delete the target volume as part of the operation.
DHChapInfo	StorageGroup	array	The credential information used to authenticate the endpoints in this StorageGroup for DHCHAP.
DisplayName	Volume	string	A us er-configurable string to name the volume.
DomainMembers	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 > C hangeRAIDLayout (Action))	array	An array of the drives to be used by the volume.
	StoragePool (Actions > AddDrives (Action))	array	The drive(s) to be added.

Property Name	Defined In Schema(s)	Type	Description
	StoragePool (Actions > RemoveDrives (Action))	array	The drive(s) to be removed.
	StorageService	object	The set of drives managed by this storage service.
Duration	IOPerformance LoSCapabilities (Suppo rtedIOWorkloads > Components)	string (seconds)	Duration that this component is active.
Enable	StoragePool (Actions > SetC ompressionState (Action))	boolean	This property indicates the desired compression state of the storage pool.
	StoragePool (Actions > SetDed uplicationState (Action))	boolean	This property indicates the desired deduplication state of the storage pool.
	StoragePool (Actions > Set EncryptionState (Action))	boolean	This property indicates the desired encryption state of the storage pool.
Encrypted	StoragePool	boolean	Indicator of whether or not the StoragePool has encryption enabled.

Property Name	Defined In Schema(s)	Type	Description
	Volume	boolean	Is this Volume encrypted.
Encr yptionEnabled	StoragePool	boolean	Indicates whether or not encryption is enabled on the storage pool.
EncryptionKey	StorageService (Actions > S etEncryptionKey (Action))	string	The encryption key to set on the storage subsystem.
En cryptionTypes	Volume	array	The types of encryption used by this Volume.
E ndGrpLifetime	StoragePool (NVMeEnduranceG roupProperties)	object	This property contains the Endurance Group Lifetime properties.
E ndpointGroups	StorageService	object	Client and Server endpoint groups.
Endpoints	StorageService	object	Endpoints.
Endu ranceEstimate	StoragePool (NVMeEndurance GroupProperties > EndGrpLifetime)	integer	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.

Property Name	Defined In Schema(s)	Type	Description
EnduranceGr oupIdentifier	StoragePool (NVM eSetProperties)	string	A 16-bit hex value that contains the endurance group identifier.
E rrorInformation LogEntryCount	StoragePool (NVMeEndurance GroupProperties > EndGrpLifetime)	integer	This property contains the number of error information log entries over the life of the controller for the endurance group.
Ether netInterfaces	FileShare	object	A link to the collection of Ethernet interfaces that provide access to this file share.
E xecuteSupport	FileShare	boolean	Execute access is supported by the file share.
E xportedShares	FileSystem	object	An array of exported file shares of this file system.
ExposeVolumes (Action)	StorageGroup (Actions)	object	Expose the storage volumes of this group.
Failu reDomainScope	DataProtection LoSCapabilities (Supporte dRecoveryGeogra phicObjectives)	string (enum)	Values of this enumeration represent a geographic scope of a failure domain.

Property Name	Defined In Schema(s)	Type	Description
Features	F eaturesRegistry	object	The pattern property indicates that a free-form string is the unique identifier for the feature within the registry.
• *FileProtocol**	FileShare (FileSh aringProtocols)	string (enum)	The file sharing protocols supported by the file system.
FileSharePath	FileShare	string	A path to an exported file or directory on the file system where this file share is hosted.
FileS hareQuotaType	FileShare	string (enum)	Specifies the type of quota enforcement.
FileShareRemain ingQuotaBytes	FileShare	integer (bytes)	The number of remaining bytes that may be used by this file share.
FileShareTo talQuotaBytes	FileShare	integer (bytes)	The maximum number of bytes that may be used by this file share.
FileSha ringProtocols	FileShare	array	An array of file sharing protocols supported by this file share.

Property Name	Defined In Schema(s)	Type	Description
FileSystem	FileShare (Links)	object	A link to the file system containing the file share.
FileSystems	StorageService	object	FileSystems.
Fi rmwareVersion	NV MeFirmwareImage	string	The firmware version of the available NVMe firmware image.
ForceEnable (Action)	Volume (Actions)	object	Request system force the volume to an enabled state regardless of data loss.
For mattedLBASize	Volume (NVMeNames paceProperties)	string	The LBA data size and metadata size combination that the namespace has been formatted with.
Gu aranteedBytes	CapacitySource (P rovidedCapacity > Data), CapacitySource (P rovidedCapacity > Metadata), CapacitySource (P rovidedCapacity > Snapshot)	integer (bytes)	The number of bytes the storage system guarantees can be allocated in this data store for this data type.
HideVolumes (Action)	StorageGroup (Actions)	object	Hide the storage volumes of this group.

Property Name	Defined In Schema(s)	Type	Description
HostAuthe nticationType	DataSecuri tyLineOfService	string (enum)	Authentication type for hosts (servers) or initiator endpoints.
HostingSystem	StorageService (Links)	object	The hosting system or storage controller hosting this storage service.
HostRea dCommandCount	StoragePool (NVMeEndurance GroupProperties > EndGrpLifetime)	integer	This property contains the number of read commands completed by all controllers in the NVM subsystem for the Endurance Group.
HostWrit eCommandCount	StoragePool (NVMeEndurance GroupProperties > EndGrpLifetime)	integer	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)	object	Any additional identifiers for a resource.

Property Name	Defined In Schema(s)	Type	Description
	ClassOfService, DataProtectionLoSCapabilities, DataSecurityLoSCapabilities, DataStorageLoSCapabilities, IOConnectivityLoSCapabilities, IOPerformanceLoSCapabilities, StorageGroup, StoragePool, StorageService	object	The value identifies this resource.
Identifiers	Volume	array	The Durable names for the volume.
	FileSystem	array	The durable names for this file system.
ImportedShares	FileSystem	array	An array of imported file shares.

Property Name	Defined In Schema(s)	Type	Description
Initialize (Action)	Volume (Actions)	object	This action is used to prepare the contents of the volume for use by the system. If I nitializeMethod is not specified in the request body, but the property I nitializeMethod is specified, the property I nitializeMethod value should be used. If neither is specified, the I nitializeMethod should be Foreground.
Ini tializeMethod	Volume	string (enum)	Indicates the Initialization Method used for this volume. If I nitializeMethod is not specified, the I nitializeMethod should be Foreground.
	Volume (Actions > Initialize (Action))	string (enum)	The type of initialization to be performed.
I nitializeType	Volume (Actions > Initialize (Action))	string (enum)	The type of initialization to be performed.

Property Name	Defined In Schema(s)	Type	Description
Initiato rCHAPPassword	StorageGroup (ChapInfo)	string	The shared secret for Mutual (2-way) CHAP authentication by the initiator.
Init iatorCHAPUser	StorageGroup (ChapInfo)	string	The Initiator username for Mutual (2-way) CHAP authentication by the initiator.
IO AccessPattern	IOPerformance LoSCapabilities (Suppo rtedIOWorkloads > Components)	string (enum)	Expected access pattern for this component.
IOConnectivityL inesOfService	ClassOfService	array	A collection of IOConnectivity line of service elements.
I OConnectivityLo SCapabilities	StorageService, StorageService (Links)	object	The IO connectivity capabilities of this service.
IOLimiti ngIsSupported	IOPerformance LoSCapabilities	boolean	Limiting IOPS is supported.
IO OperationsPerSe condIsLimited	IOPerforman ceLineOfService	boolean	Limit the IOPS.
IOPe rfModeEnabled	Volume	boolean	Indicates the IO performance mode setting for the volume.

Property Name	Defined In Schema(s)	Type	Description
• *IOPerformanceLinesOfSer-vice**	ClassOfService	array	A collection of IOPerformance line of service elements.
IOPerformanceLoSCapabilities	StorageService, StorageService (Links)	object	The IO performance capabilities of this service.
• *IOStatistics**	FileSystem	object	Statistics for this FileSystem.
	StoragePool	object	Statistics for this StoragePool.
	StorageService	object	Statistics for this StorageService.
	Volume	object	Statistics for this volume.
IOWorkload	IOPerformanceLineOfService	object	A description of the expected workload.
• *IsConsistent**	C onsistencyGroup	boolean	This value is true when the consistency group is in a consistent state.
IsIsolated	DataProtectionLineOfService	boolean	The replica is in a separate fault domain.
IsShareable	Volume (NVMeNamespaceProperties)	boolean	Indicates the namespace is shareable.

Property Name	Defined In Schema(s)	Type	Description
IsS paceEfficient	DataStora geLineOfService	boolean	True implies compression or deduplication of storage.
IsTh inProvisioned	CapacitySource (Pr ovidedCapacity)	boolean	Marks that the capacity is not necessarily fully allocated.
Jo urnalingMedia	Volume (Links)	object	A pointer to the Resource that serves as a journaling media for this volume.
KeySize	DataSecurity LoSCapabilities (Support edChannelEncryp tionStrengths), DataSecurity LoSCapabilities (Supp ortedMediaEncry ptionStrengths)	string (enum)	Enumeration of Key sizes in a symmetric encryption algorithm, (see NIST SP 800-57 part 1 (http:/c src.nist.gov/pu blications/nist pubs/800-57/sp8 00-57_part1_rev 3_general.pdf).
Language	F eaturesRegistry	string	This is the RFC 5646 compliant language code for the registry.
L inesOfService	StorageService	array	The LinesOService defined for this StorageService.

Property Name	Defined In Schema(s)	Type	Description
Links	Co nsistencyGroup, DataProtectionL oSCapabilities, FileSystem, Sp areResourceSet, StorageGroup, StorageService	object	Contains links to other resources that are related to this resource.
	Volume	object	Contains references to other resources that are related to this resource.
	FileShare, StoragePool	object	The links object contains the links to other resources that are related to this resource.
	NVMeDomain	object	The links to other resources that are related to this resource.
LocalDHC HAPAuthSecret	StorageGroup (DHChapInfo)	string	The local DHCHAP auth secret for DHCHAP authentication.
Logi calUnitNumber	Volume	integer	Indicates the host-visible Lo gicalUnitNumber assigned to this Volume.
	StorageGroup (MappedVolumes)	string	A SCSI Logical Unit Number for a Volume.

Property Name	Defined In Schema(s)	Type	Description
LowS paceWarningThre sholdPercents	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.
• *Manufacturer**	Volume	string	The manufacturer or OEM of this storage volume.
MappedVolumes	StorageGroup	array	Mapped Volumes in this storage group.
MaxB lockSizeBytes	Volume	integer (bytes)	Max Block size in bytes.
	StoragePool	integer (bytes)	Maximum Block size in bytes.
MaxB ytesPerSecond	IOConnectivi tyLineOfService	integer (By/s)	The maximum Bandwidth in bytes per second that a connection can support.

Property Name	Defined In Schema(s)	Type	Description
MaxFileNameLengthBytes	FileSystem	integer (bytes)	A value indicating the maximum length of a file name within the file system.
MaximumCapacityPerEnduranceGroupBytes	NVMeDomain	integer (bytes)	The maximum capacity per endurance group in bytes of this NVMe Domain.
MaximumRecoverableCapacitySourceCount	DataStorageLoSCapabilities	integer	Maximum number of capacity source resources for the purpose of recovery from a failure.
MaxIOOperationsPerSecondPerTerabyte	IOPerformanceLineOfService	integer (1/s/TBy)	The amount of IOPS a volume of a given committed size can support.
MaxIOPS	IOConnectivityLineOfService	integer ([IO]/s)	The maximum supported IOs per second that the connection will support for the selected access protocol.
MaxSamplePeriod	IOPerformanceLoSCapabilities	string (seconds)	Maximum sampling period over which average values are calculated.

Property Name	Defined In Schema(s)	Type	Description
MaxSupportedBytesPerSecond	IOConnectivity LoSCapabilities	integer (By/s)	The maximum Bandwidth in bytes per second that a connection can support.
Max SupportedIOPS	IOConnectivity LoSCapabilities	integer ([IO]/s)	The maximum IOPS that a connection can support.
Med iaAndDataIntegr ityErrorCount	StoragePool (NVMeEndurance GroupProperties > EndGrpLifetime)	integer	This property contains the number of occurences where the controller detected an unrecovered data integrity error for the Endurance Group.
MediaEncry ptionStrength	DataSecuri tyLineOfService	string (enum)	Key size for media encryption.
M ediaSpanCount	Volume	integer	Indicates the number of media elements used per span in the secondary RAID for a hierarchical RAID type.

Property Name	Defined In Schema(s)	Type	Description
	Volume (Actions > C hangeRAIDLayout (Action))	integer	The requested number of media elements used per span in the secondary RAID for a hierarchical RAID type.
Medi aUnitsWritten	StoragePool (NVMeEndurance GroupProperties > EndGrpLifetime)	integer	The property contains the total number of data units written from this endurance group.
Members	Hosted StorageServices	array	The value of each member references a StorageService resource.
Members@o data.nextLink	Hosted StorageServices	string	The URI to the resource containing the next set of partial members.
Members AreConsistent	StorageGroup	boolean	Members are kept in a consistent state.
Metadata	CapacitySource (Pr ovidedCapacity)	object	The capacity information relating to metadata.

Property Name	Defined In Schema(s)	Type	Description
Metad ataTransferredA tEndOfDataLBA	Volume (NVMeNames paceProperties)	boolean	This property indicates whether or not the metadata is transferred at the end of the LBA creating an extended data LBA.
MinLifetime	DataProtecti onLineOfService	string	Minimum lifetime (seconds) that replica must be maintained.
Mi nSamplePeriod	IOPerformance LoSCapabilities	string (seconds)	Minimum sampling period over which average values are calculated.
• *MinSupportedI OperationLa- tenc yMicrosec- onds**	IOPerformance LoSCapabilities	integer (us)	Minimum supported average IO latency.
Model	Volume	string	The model number for this storage volume.
Name spaceFeatures	Volume (NVMeNames paceProperties)	object	This property contains a set of Namespace Features.
NamespaceId	Volume (NVMeNames paceProperties)	string	The NVMe Namespace Identifier for this namespace.

Property Name	Defined In Schema(s)	Type	Description
Num berLBAFormats	Volume (NVMeNames paceProperties)	integer (bytes)	The number of LBA data size and metadata size combinations supported by this namespace. The value of this property is between 0 and 16.
N VMeDeviceType	NV MeFirmwareImage	string (enum)	The type of NVMe Device this image is associated with.
NVMeEn- duranceGr oupProperties	StoragePool	object	This property contains properties to use when StoragePool is used to describe an NVMe Endurance Group.
NVMeNamesp aceProperties	Volume	object	This property contains properties to use when Volume is used to describe an NVMe Namespace.
• *NVMePoolType*	StoragePool (NVMeProperties)	string (enum)	Indicates whether the StoragePool is used as an EnduranceGroup or an NVMSet.
N VMeProperties	StoragePool	object	NVMe properties for this storage pool.

Property Name	Defined In Schema(s)	Type	Description
NVMe SetProperties	StoragePool	object	This property contains properties to use when StoragePool is used to describe an NVMe Set.
NVMeVersion	Volume (NVMeNames paceProperties)	string	The version of the NVMe Base Specification supported.
O nHandLocation	S pareResourceSet	object	Location where this set of spares is kept.
• *OnHandSpares(Links)	S pareResourceSet	array	The type of resources in the set.
OnLine	S pareResourceSet	boolean	This set is available online.
OperationName	Volume (Operations)	string	The name of the operation.
Operations	Volume	array	The operations currently running on the Volume.
OptimalW riteSizeBytes	StoragePool (NVM eSetProperties)	integer (bytes)	This property contains the Optimal Write Size in Bytes for this NVMe Set.
Optim umIOSizeBytes	Volume	integer (bytes)	The size in bytes of this Volume's optimum IO size.

Property Name	Defined In Schema(s)	Type	Description
• *OwningEntity**	F eaturesRegistry	string	This is the organization or company that publishes this registry.
OwningSt orageResource	StoragePool (Links)	object	A pointer to the Storage resource that owns or contains this StoragePool.
	Volume (Links)	object	A pointer to the Storage resource that owns or contains this volume.
OwningS torageService	Volume (Links)	object	A pointer to the StorageService that owns or contains this volume.
Parent StorageGroups	StorageGroup (Links)	array	Parent StorageGroups.
PeerDHC HAPAuthSecret	StorageGroup (DHChapInfo)	string	The peer DHCHAP auth secret for DHCHAP authentication.
Perce ntageComplete	Volume (Operations)	integer	The percentage of the operation that has been completed.

Property Name	Defined In Schema(s)	Type	Description
PercentOfData	IOPerformance LoSCapabilities (Suppo rtedIOWorkloads > Components)	integer (%)	Percent of data for this workload component.
PercentOfIOPS	IOPerformance LoSCapabilities (Suppo rtedIOWorkloads > Components)	integer (%)	Percent of total IOPS for this workload component.
PercentUsed	StoragePool (NVMeEndurance GroupProperties > EndGrpLifetime)	integer	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.
P redictedMediaLi feLeftPercent	StoragePool (NVMeEnduranceG roupProperties)	number (%)	The percentage of reads and writes that are predicted to be available for the media.
Pro videdCapacity	CapacitySource	object	The amount of space that has been provided from the P rovidingDrives, Pr ovidingVolumes, ProvidingMemory or ProvidingPools.

Property Name	Defined In Schema(s)	Type	Description
ProvidedC lassOfService	CapacitySource	object	The ClassOfService provided from the P rovidingDrives, Pr ovidingVolumes, Providi ngMemoryChunks, ProvidingMemory or ProvidingPools.
Pr ovidingDrives	CapacitySource	object	The drive or drives that provide this space.
Pr ovidingMemory	CapacitySource	object	The memory that provides this space.
Providin gMemoryChunks	CapacitySource	object	The memory chunks that provide this space.
P rovidingPools	CapacitySource	object	The pool or pools that provide this space.
Pro vidingVolumes	CapacitySource	object	The volume or volumes that provide this space.
Pro visionedBytes	CapacitySource (P rovidedCapacity > Data), CapacitySource (P rovidedCapacity > Metadata), CapacitySource (P rovidedCapacity > Snapshot)	integer (bytes)	The maximum number of bytes that can be allocated in this data store for this data type.

Property Name	Defined In Schema(s)	Type	Description
Provi sioningPolicy	DataStora geLineOfService	string (enum)	Provisioning policy for storage.
	DataStorage LoSCapabilities (S upportedProvisi oningPolicies), StoragePool (SupportedProvis ioningPolicies)	string (enum)	Space provisioning policy.
	Volume	string (enum)	This property specifies the volume's storage allocation, or provisioning policy.
RAIDType	Volume	string (enum)	The RAID type of this volume.
	Volume (Actions > C hangeRAIDLayout (Action))	string (enum)	The requested RAID type for the volume.
Ra ndom4kReadTypic alNanoSeconds	StoragePool (NVM eSetProperties)	integer	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.

Property Name	Defined In Schema(s)	Type	Description
Re adCachePolicy	Volume	string (enum)	Indicates the read cache policy setting for the Volume.
Re coverableCapaci tySourceCount	FileSystem, StoragePool, Volume	integer	Current number of capacity source resources that are available as replacements.
	DataStora geLineOfService	integer	Required minimum number of available capacity source resources.
Recove ryAccessScope	DataProtection LoSCapabilities (Sup portedRecoveryT imeObjectives), DataStorage LoSCapabilities (Su pportedRecovery TimeObjectives)	string (enum)	An enumeration that represents the relative time required to make a replica available as a source.
• *RecoveryGeogra phicObjec- tive**	DataProtecti onLineOfService	string (enum)	Geographic distribution scopes.
RecoveryPoint ObjectiveTime	DataProtecti onLineOfService	string	Time interval defining how much source data that can be lost on failure.

Property Name	Defined In Schema(s)	Type	Description
Recovery TimeObjective	DataProtecti onLineOfService	string (enum)	An enumeration value that indicates the expected time to access an alternate replica.
RecoveryT imeObjectives	DataStora geLineOfService	string (enum)	Expectations for time to access the primary store after disaster recover.
Redundancy	StorageService	array	Redundancy information for the storage subsystem.
R egistryPrefix	F eaturesRegistry	string	This is the single word prefix used to form a Feature ID structure.
Re gistryVersion	F eaturesRegistry	string	This is the feature registry version which is used in the middle portion of a Feature ID.
Rema iningCapacity	FileSystem	object	Remaining capacity allocated to the file system.
RemainingCa pacityPercent	FileShare	integer	The percentage of the capacity remaining in the FileShare.
	FileSystem	integer	The percentage of the capacity remaining in the FileSystem.

Property Name	Defined In Schema(s)	Type	Description
	StoragePool	integer	The percentage of the capacity remaining in the StoragePool.
	Volume	integer	The percentage of the capacity remaining in the Volume.
RemoveDrives (Action)	StoragePool (Actions)	object	This action is used to remove drive(s) from the capacity source for the StoragePool.
RemoveRepl icaRelationship (Action)	C onsistencyGroup (Actions)	object	This action is used to disable data synchronization between a source and target consistency group, remove the replication relationship, and optionally delete the target consistency group.

Property Name	Defined In Schema(s)	Type	Description
	Volume (Actions)	object	This action is used to disable data synchronization between a source and target volume, remove the replication relationship, and optionally delete the target volume.
Replace mentSpareSets	S pareResourceSet (Links)	array	Other spare sets that can be utilized to replenish this spare set.
ReplicaA ccessLocation	DataProtecti onLineOfService	object	Location that supplies data access to the replica.
ReplicaC lassOfService	DataProtecti onLineOfService	object	The replica's class of service.
Repl icaCollection	FileSystem (Links)	array	An array of links to replicas for this file system.
ReplicaInfo	Co nsistencyGroup, StorageGroup	object	Describes this storage group in its role as a target for replication.
	Volume	object	Describes this storage volume in its role as a target replica.

Property Name	Defined In Schema(s)	Type	Description
	FileSystem	object	This value describes the replica attributes if this file system is a replica.
Replica LineOfService	DataProtecti onLineOfService (Actions > CreateReplicas (Action))	object	The data protection line of service this action is bound to.
ReplicaName	DataProtecti onLineOfService (Actions > CreateReplicas (Action) > R eplicaRequests)	string	The name of the new replica.
Re plicaRequests	DataProtecti onLineOfService (Actions > CreateReplicas (Action))	array	Specifies the resources to replicate and a name for the replica.
ReplicaSource	DataProtecti onLineOfService (Actions > CreateReplicas (Action) > R eplicaRequests)	object	A resource to be replicated.
R eplicaTargets	Co nsistencyGroup, FileSystem, StorageGroup, Volume	array	The resources that are target replicas of this source.

Property Name	Defined In Schema(s)	Type	Description
ReplicaType	C onsistencyGroup (Actions > Assi gnReplicaTarget (Action)), C onsistencyGroup (Actions > Crea teReplicaTarget (Action))	string (enum)	The type of replica relationship to be created (e.g., Clone, Mirror, Snap).
	Volume (Actions > Assi gnReplicaTarget (Action)), Volume (Actions > Crea teReplicaTarget (Action))	string (enum)	The type of replica relationship to be created.
	DataProtecti onLineOfService	string (enum)	Type of replica.
	DataProtection LoSCapabilities (Support edReplicaTypes)	string (enum)	Values of ReplicaType describe the intended outcome of the replication.

Property Name	Defined In Schema(s)	Type	Description
Repl icaUpdateMode	C onsistencyGroup (Actions > Assi gnReplicaTarget (Action)), C onsistencyGroup (Actions > Crea teReplicaTarget (Action)), Volume (Actions > Assi gnReplicaTarget (Action)), Volume (Actions > Crea teReplicaTarget (Action))	string (enum)	The replica update mode (synchronous vs asynchronous).
• *ResourceType**	S pareResourceSet	string	The type of resources in the set.
Re sumeReplication (Action)	C onsistencyGroup (Actions)	object	This action is used to resume the active data synchronization between a source and target consistency group, without otherwise altering the replication relationship.

Property Name	Defined In Schema(s)	Type	Description
	Volume (Actions)	object	This action is used to resume the active data synchronization between a source and target volume, without otherwise altering the replication relationship.
ReverseReplicat ionRelationship (Action)	C onsistencyGroup (Actions)	object	This action is used to reverse the replication relationship between a source and target consistency group.
	Volume (Actions)	object	This action is used to reverse the replication relationship between a source and target volume.
RootAccess	FileShare	boolean	Root access is allowed by the file share.
• *SamplePeriod*	IOPerforman ceLineOfService	string	Sampling period over which average values are calculated.
Schedule	DataProtecti onLineOfService	object	A schedule for making periodic point in time replicas.

Property Name	Defined In Schema(s)	Type	Description
	IOPerformance LoSCapabilities (Suppo rtedIOWorkloads > Components)	object	Specifies when to apply this workload component.
SecureCh annelProtocol	DataSecuri tyLineOfService	string (enum)	Protocol that provide encrypted communication.
	DataSecurity LoSCapabilities (Su pportedSecureCh annelProtocols)	string (enum)	Types of Secure channel protocols.
ServerE ndpointGroups	StorageGroup	array	Groups of server endpoints in this storage group.
	StorageService	object	Server endpoint groups.
Se rverEndpoints	Volume (Links)	array	An array of references to the server Endpoints associated with this volume.
SetC ompressionState (Action)	StoragePool (Actions)	object	This action is used to set the compression state of the pool.
SetDed uplicationState (Action)	StoragePool (Actions)	object	This action is used to set the dedupe state of the pool.

Property Name	Defined In Schema(s)	Type	Description
S etEncryptionKey (Action)	StorageService (Actions)	object	This action is used to set the encryption key for the storage subsystem.
Set EncryptionState (Action)	StoragePool (Actions)	object	This action is used to set the encryption state of the pool.
SetIdentifier	StoragePool (NVM eSetProperties)	string	A 16-bit hex value that contains the NVMe Set group identifier.
Snapshot	CapacitySource (Pr ovidedCapacity)	object	The capacity information relating to snapshot or backup data.
Spar eResourceSets	FileSystem (Links), StoragePool (Links), Volume (Links)	array	An array of references to Spa reResourceSets.
	StorageService	array	An array of Spa reResourceSets.
S plitReplication (Action)	C onsistencyGroup (Actions)	object	This action is used to split the replication relationship and suspend data synchronization between a source and target consistency group.

Property Name	Defined In Schema(s)	Type	Description
	Volume (Actions)	object	This action is used to split the replication relationship and suspend data synchronization between a source and target volume.
Status	FileShare	object	Indicates the status of the file share.
	C onsistencyGroup	object	The property contains the status of the Co nsistencyGroup.
	StorageGroup	object	The property contains the status of the StorageGroup.
	StoragePool	object	The property contains the status of the StoragePool.
	StorageService	object	The property contains the status of the StorageService.
	Volume	object	The property contains the status of the Volume.

Property Name	Defined In Schema(s)	Type	Description
	NVMeDomain	object	The status and health of the resource and its subordinate or dependent resources.
StorageAccessCapability	DataStorageLineOfService (AccessCapabilities), DataStorageLoSCapabilities (SupportedAccessCapabilities), FileShare (DefaultAccessCapabilities), FileSystem (AccessCapabilities), Volume (AccessCapabilities)	string (enum)	Values of StorageAccessCapability describe abilities to read or write storage.
StorageGroups	Volume (Links)	array	An array of references to the StorageGroups associated with this volume.
	Volume	object	An array of references to Storage Groups that includes this volume.
	StorageService	object	StorageGroups.
• **StoragePools**	StorageService	object	StoragePools.

Property Name	Defined In Schema(s)	Type	Description
Stor ageSubsystems	StorageService	object	A reference to storage subsystems managed by this storage service.
S tripSizeBytes	Volume (Actions > C hangeRAIDLayout (Action))	integer	The number of blocks (bytes) requested for new strip size.
	Volume	integer (bytes)	The number of blocks (bytes) in a strip in a disk array that uses striped data mapping.
• *SupportedAcces sCapabili- ties**	DataStorage LoSCapabilities	array	Supported access capabilities.
SupportedAc cessProtocols	IOConnectivity LoSCapabilities	array	SupportedA ccessProtocols.
Suppo rtedAntivirusEn gineProviders	DataSecurity LoSCapabilities	array	Supported AntiVirus providers.
Su pportedAntiviru sScanPolicies	DataSecurity LoSCapabilities	array	Supported policies that trigger an AntiVirus scan.
Support edChannelEncryp tionStrengths	DataSecurity LoSCapabilities	array	Supported key sizes for transport channel encryption.
Suppo rtedDataSanitiz ationPolicies	DataSecurity LoSCapabilities	array	Supported data sanitization policies.

Property Name	Defined In Schema(s)	Type	Description
Supp ortedHostAuthen ticationTypes	DataSecurity LoSCapabilities	array	Supported authentication types for hosts (servers) or initiator endpoints.
Support edIOWorkloads	IOPerformance LoSCapabilities	array	A collection of supported workloads.
SupportedL inesOfService	DataProtection LoSCapabilities	array	Collection of known and supported DataProtection LinesOfService.
	DataSecurity LoSCapabilities	array	Collection of known and supported DataSecurity LinesOfService.
	DataStorage LoSCapabilities	array	Collection of known and supported DataStorage LinesOfService.
	IOConnectivity LoSCapabilities	array	Collection of known and supported IOConnectivity LinesOfService.
	IOPerformance LoSCapabilities	array	Collection of known and supported IOPerformance LinesOfService.

Property Name	Defined In Schema(s)	Type	Description
Suppo rtedMediaEncryp tionStrengths	DataSecurity LoSCapabilities	array	Supported key sizes for media encryption.
Supporte dMinLifetimes	DataProtection LoSCapabilities	array	Supported minimum lifetime that replica must be maintained.
S upportedProvisi oningPolicies	DataStorage LoSCapabilities	array	Thin allows over allocation of storage.
	StoragePool	array	This collection specifies all supported storage allocation properties for the Storage Pool.
Suppo rtedRAIDTypes	StoragePool	array	A collection of the RAID Types supported by the storage pool.
Supported RecoveryGeograp hicObjectives	DataProtection LoSCapabilities	array	Supported types of failure domains.
Supporte dRecoveryPointO bjectiveTimes	DataProtection LoSCapabilities	array	Supported time intervals defining how much source information can be lost on failure.
Sup portedRecoveryT imeObjectives	DataProtection LoSCapabilities	array	Supported expectations for time to access an alternate replica.

Property Name	Defined In Schema(s)	Type	Description
	DataStorage LoSCapabilities	array	Supported expectations for time to access the primary store after recovery.
SupportedR eplicaOptions	DataProtection LoSCapabilities (Links)	array	Collection of known and supported replica Classes of Service.
Supporte dReplicaTypes	DataProtection LoSCapabilities	array	Supported replica types.
Sup portedSecureCha nnelProtocols	DataSecurity LoSCapabilities	array	Supported protocols that provide encrypted communication.
Supp ortedUserAuthen ticationTypes	DataSecurity LoSCapabilities	array	Supported authentication types for users (or programs).

Property Name	Defined In Schema(s)	Type	Description
S upportsAtomicTr ansactionSize	Volume (NVMeName spaceProperties > Nam espaceFeatures)	boolean	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.
SupportsD eallocatedOrUnw rittenLBError	Volume (NVMeName spaceProperties > Nam espaceFeatures)	boolean	This property indicates that the controller supports deallocated or unwritten logical block error for this namespace.

Property Name	Defined In Schema(s)	Type	Description
SupportsIOPer formanceHints	Volume (NVMeName spaceProperties > Nam espaceFeatures)	boolean	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 c ontroller-level properties AWUN, AWUPF, and ACWU.
Sup portsIsolated	DataProtection LoSCapabilities	boolean	Allocating a replica in a separate fault domain is supported.
Suppo rtsNGUIDReuse	Volume (NVMeName spaceProperties > Nam espaceFeatures)	boolean	This property indicates that the namespace supports the use of an NGUID (namespace globally unique identifier) value.
SupportsSp aceEfficiency	DataStorage LoSCapabilities	boolean	Allows compression or deduplication of storage.

Property Name	Defined In Schema(s)	Type	Description
SupportsThi nProvisioning	Volume (NVMeName spaceProperties > Nam espaceFeatures)	boolean	This property indicates whether or not the NVMe Namespace supports thin provisioning.
Sus pendReplication (Action)	C onsistencyGroup (Actions)	object	This action is used to suspend active data synchronization between a source and target consistency group, without otherwise altering the replication relationship.
	Volume (Actions)	object	This action is used to suspend active data synchronization between a source and target volume, without otherwise altering the replication relationship.
Targe tCHAPPassword	StorageGroup (ChapInfo)	string	The Target CHAP Secret for Mutual (2-way) CHAP authentication by the target.

Property Name	Defined In Schema(s)	Type	Description
T argetCHAPUser	StorageGroup (ChapInfo)	string	The Target CHAP Username for Mutual (2-way) CHAP authentication by the target.
TargetCon sistencyGroup	C onsistencyGroup (Actions > Assi gnReplicaTarget (Action)), C onsistencyGroup (Actions > RemoveRepl icaRelationship (Action)), C onsistencyGroup (Actions > Re sumeReplication (Action)), C onsistencyGroup (Actions > ReverseReplicat ionRelationship (Action)), C onsistencyGroup (Actions > S plitReplication (Action)), C onsistencyGroup (Actions > Sus pendReplication (Action))	string	The Uri to the existing target consistency group.

Property Name	Defined In Schema(s)	Type	Description
T argetPassword	StorageGroup (ChapInfo)	string	This property is deprecated in favor of Targ etCHAPPassword.
Targ etStoragePool	C onsistencyGroup (Actions > Crea teReplicaTarget (Action)), Volume (Actions > Crea teReplicaTarget (Action))	string	The Uri to the existing target Storage Pool.
• *TargetVolume*	Volume (Actions > Assi gnReplicaTarget (Action)), Volume (Actions > RemoveRepl icaRelationship (Action)), Volume (Actions > Re sumeReplication (Action)), Volume (Actions > ReverseReplicat ionRelationship (Action)), Volume (Actions > S plitReplication (Action)), Volume (Actions > Sus pendReplication (Action))	string	The Uri to the existing target volume.

Property Name	Defined In Schema(s)	Type	Description
Ti meToProvision	S pareResourceSet	string	Amount of time needed to make an on-hand resource available as a spare.
Ti meToReplenish	S pareResourceSet	string	Amount of time needed to get more on-hand resources.
TotalDomain CapacityBytes	NVMeDomain	integer (bytes)	The total capacity in bytes of this NVMe Domain.
Un allocatedDomain CapacityBytes	NVMeDomain	integer (bytes)	The total unallocated capacity in bytes of this NVMe Domain.
Unalloca tedNVM-Namespace CapacityBytes	StoragePool (NVM eSetProperties)	integer (bytes)	Indicates the unallocated capacity of the NVMe Set in bytes.
UserAuthe nticationType	DataSecuri tyLineOfService	string (enum)	Authentication type for users (or programs).
Vendor	NV MeFirmwareImage	string	The vendor or manufacturer associated with this NVMe firmware image.
Volume	StorageGroup (MappedVolumes)	object	A mapped Volume.

Property Name	Defined In Schema(s)	Type	Description
VolumeName	Volume (Actions > Crea teReplicaTarget (Action))	string	The Name for the new target volume.
Volumes	Co nsistencyGroup, StorageGroup	array	Volumes in this storage group.
	StorageService	object	Volumes.
Volu mesAreExposed	StorageGroup	boolean	Storage volumes are exposed to paths defined by the client and server endpoints.
VolumeType	Volume	string (enum)	The type of this volume.
VolumeUsage	Volume	string (enum)	Indicates the Volume usage type setting for the Volume.
Wri teCachePolicy	Volume	string (enum)	Indicates the write cache policy setting for the Volume.
Wr iteCacheState	Volume	string (enum)	Indicates the WriteCacheState policy setting for the Volume.
WriteHolePro tectionPolicy	Volume	string (enum)	The policy that the RAID volume is using to address the write hole issue.

Property Name	Defined In Schema(s)	Type	Description
WritePolicy	FileShare	string (enum)	Defines how writes are replicated to the shared source.