



## **statistics-v1 commands**

### **ONTAP 9.6 commands**

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# statistics-v1 commands

## statistics-v1 nfs commands

### statistics-v1 nfs show-mount

Display mount statistics

**Availability:** This command is available to *cluster* administrators at the *advanced* privilege level.

#### Description

The `statistics-v1 nfs show-mount` command displays the following statistics about the NFS mounts on each node in the cluster:

- Result of the operations (success or failure)
- Total number of null operations
- Total number of mount operations
- Total number of dump operations
- Total number of unmount operations
- Total number of unmountall operations
- Total number of export operations
- Total number of exportall operations
- Total number of pathconf operations
- Total number of all the above operations

This command is designed to be used to analyze performance characteristics and to help diagnose issues.

#### Parameters

**{ [-fields <fieldname>,...]**

If you specify the `-fields <fieldname>, ...` parameter, the command output also includes the specified field or fields. You can use `'-fields ?'` to display the fields to specify.

**| [-instance ] }**

If you specify the `-instance` parameter, the command displays detailed information about all fields.

**[-node {<nodename>|local}] - Node (privilege: advanced)**

If you specify this parameter, the command displays statistics only for the specified node.

**[-result {success|failure|all}] - Result (privilege: advanced)**

If you specify this parameter, the command displays statistics only about the node or nodes that have the specified result (success/failure/all).

**[-null <Counter with Delta>] - Null Operations (privilege: advanced)**

If you specify this parameter, the command displays statistics only about the node or nodes that have the

specified number of null operations.

**[-mount <Counter with Delta>] - Mount Operations (privilege: advanced)**

If you specify this parameter, the command displays statistics only about the node or nodes that have the specified number of mount operations.

**[-dump <Counter with Delta>] - Dump Operations (privilege: advanced)**

If you specify this parameter, the command displays statistics only about the node or nodes that have the specified number of dump operations.

**[-unmnt <Counter with Delta>] - UnMount Operations (privilege: advanced)**

If you specify this parameter, the command displays statistics only about the node or nodes that have the specified number of unmount operations.

**[-unmntall <Counter with Delta>] - UnMountAll Operations (privilege: advanced)**

If you specify this parameter, the command displays statistics only about the node or nodes that have the specified number of unmountall operations.

**[-export <Counter with Delta>] - Export Operations (privilege: advanced)**

If you specify this parameter, the command displays statistics only about the node or nodes that have the specified number of export operations.

**[-exportall <Counter with Delta>] - ExportAll Operations (privilege: advanced)**

If you specify this parameter, the command displays statistics only about the node or nodes that have the specified number of exportall operations.

**[-pathconf <Counter with Delta>] - PathConf Operations (privilege: advanced)**

If you specify this parameter, the command displays statistics only about the node or nodes that have the specified number of pathconf operations.

**[-total <Counter64 with Delta>] - Total Operations (privilege: advanced)**

If you specify this parameter, the command displays statistics only about the node or nodes that have the specified number of total operations.

## Examples

The following example displays statistics about the NFS mounts for a node named node1:

```
cluster1::*> statistics-v1 nfs show-mount -node node1
```

Node	Value	Delta
node1	-----success-----	
Null Ops:	2	0/s:16s
Mount Ops:	1	0/s:16s
Dump Ops:	0	-
Unmount Ops:	1	0/s:16s
Unmount All Ops:	0	-
Export Ops:	0	-
ExportAll Ops	0	-
PathConf Ops:	0	-
Total Ops:	4	0/s:16s

Node	Value	Delta
node1	-----failure-----	
Null Ops:	0	-
Mount Ops:	0	-
Dump Ops:	0	-
Unmount Ops:	0	-
Unmount All Ops:	0	-
Export Ops:	0	-
ExportAll Ops	0	-
PathConf Ops:	0	-
Total Ops:	0	-

## statistics-v1 nfs show-nlm

(DEPRECATED)-Display NLM statistics

**Availability:** This command is available to *cluster* administrators at the *advanced* privilege level.

### Description

The `statistics-v1 nfs show-nlm` command displays the following statistics about the Network Lock Manager (NLM) on each node in the cluster:

- Result of the operations (success or failure)
- Total number of null operations
- Total number of test operations
- Total number of lock operations
- Total number of cancel operations
- Total number of unlock operations
- Total number of granted operations

- Total number of share operations
- Total number of unshare operations
- Total number of nmlock operations
- Total number of freeall operations
- Total number of all the above operations

This command is designed to be used to analyze performance characteristics and to help diagnose issues.



This command requires an effective cluster version earlier than Data ONTAP 9.0. Data for nodes running Data ONTAP 9.0 or later is not collected, and will not be displayed. Use the [statistics show`-object` nlm](#) command instead.

## Parameters

**{ [-fields <fieldname>,...]**

If you specify the `-fields <fieldname>, ...` parameter, the command output also includes the specified field or fields. You can use `'-fields ?'` to display the fields to specify.

**| [-instance ] }**

If you specify the `-instance` parameter, the command displays detailed information about all fields.

**[-node {<nodename>|local}] - Node (privilege: advanced)**

If you specify this parameter, the command displays statistics only for the specified node.

**[-result {success|failure|all}] - Result (privilege: advanced)**

If you specify this parameter, the command displays statistics only about the node or nodes that have the specified result (success/failure/all).

**[-null <Counter with Delta>] - Null Operations (privilege: advanced)**

If you specify this parameter, the command displays statistics only about the node or nodes that have the specified number of null operations.

**[-test <Counter with Delta>] - Test Operations (privilege: advanced)**

If you specify this parameter, the command displays statistics only about the node or nodes that have the specified number of test operations.

**[-lock <Counter with Delta>] - Lock Operations (privilege: advanced)**

If you specify this parameter, the command displays statistics only about the node or nodes that have the specified number of lock operations.

**[-cancel <Counter with Delta>] - Cancel Operations (privilege: advanced)**

If you specify this parameter, the command displays statistics only about the node or nodes that have the specified number of cancel operations.

**[-unlock <Counter with Delta>] - Unlock Operations (privilege: advanced)**

If you specify this parameter, the command displays statistics only about the node or nodes that have the specified number of unlock operations.

**[-granted <Counter with Delta>] - Granted Operations (privilege: advanced)**

If you specify this parameter, the command displays statistics only about the node or nodes that have the specified number of granted operations.

**[-share <Counter with Delta>] - Share Operations (privilege: advanced)**

If you specify this parameter, the command displays statistics only about the node or nodes that have the specified number of share operations.

**[-unshare <Counter with Delta>] - Unshare Operations (privilege: advanced)**

If you specify this parameter, the command displays statistics only about the node or nodes that have the specified number of unshare operations.

**[-nmlock <Counter with Delta>] - NmLock Operations (privilege: advanced)**

If you specify this parameter, the command displays statistics only about the node or nodes that have the specified number of nmlock operations.

**[-freeall <Counter with Delta>] - FreeAll Operations (privilege: advanced)**

If you specify this parameter, the command displays statistics only about the node or nodes that have the specified number of freeall operations.

**[-total <Counter64 with Delta>] - Total Operations (privilege: advanced)**

If you specify this parameter, the command displays statistics only about the node or nodes that have the specified number of total operations.

## Examples

The following example displays statistics about the NLM for a node named node1:

```
cluster1::*> statistics-v1 nfs show-nlm -node node1
```

Node	Value	Delta
node1	-----success-----	
Null:	0	-
Test:	0	-
Lock:	2	0/s:23s
Cancel:	0	-
Unlock:	1	0/s:23s
Granted:	0	-
Share:	0	-
Unshare:	0	-
NmLock:	0	-
FreeAll:	0	-
Total:	3	0/s:23s

Node	Value	Delta
node1	-----failure-----	
Null:	0	-
Test:	0	-
Lock:	0	-
Cancel:	0	-
Unlock:	0	-
Granted:	0	-
Share:	0	-
Unshare:	0	-
NmLock:	0	-
FreeAll:	0	-
Total:	0	-

## Related Links

- [statistics show](#)

## statistics-v1 nfs show-statusmon

Display status monitor statistics

**Availability:** This command is available to *cluster* administrators at the *advanced* privilege level.

## Description

The `statistics-v1 nfs show-statusmon` command displays the following statistics about the Status Monitor on each node in the cluster:

- Result of the operations (success or failure)



- Total number of null operations
- Total number of stat operations
- Total number of monitor operations
- Total number of unmonitor operations
- Total number of unmonitor all operations
- Total number of simucrash operations
- Total number of notify operations
- Total number of all the above operations

This command is designed to be used to analyze performance characteristics and to help diagnose issues.

## Parameters

**{ [-fields <fieldname>,...]**

If you specify the `-fields <fieldname>`, ... parameter, the command output also includes the specified field or fields. You can use `'-fields ?'` to display the fields to specify.

**| [-instance ] }**

If you specify the `-instance` parameter, the command displays detailed information about all fields.

**[-node {<nodename>|local}] - Node (privilege: advanced)**

If you specify this parameter, the command displays statistics only for the specified node.

**[-result {success|failure|all}] - Result (privilege: advanced)**

If you specify this parameter, the command displays statistics only about the node or nodes that have the specified result (success/failure/all).

**[-null <Counter with Delta>] - Null Operations (privilege: advanced)**

If you specify this parameter, the command displays statistics only about the node or nodes that have the specified number of null operations.

**[-stat <Counter with Delta>] - Stat Operations (privilege: advanced)**

If you specify this parameter, the command displays statistics only about the node or nodes that have the specified number of stat operations.

**[-monitor <Counter with Delta>] - Monitor Operations (privilege: advanced)**

If you specify this parameter, the command displays statistics only about the node or nodes that have the specified number of monitor operations.

**[-unmonitor <Counter with Delta>] - Unmonitor Operations (privilege: advanced)**

If you specify this parameter, the command displays statistics only about the node or nodes that have the specified number of unmonitor operations.

**[-unmonall <Counter with Delta>] - Unmonitor All Operations (privilege: advanced)**

If you specify this parameter, the command displays statistics only about the node or nodes that have the specified number of unmonitor all operations.

### **[`-simucrash <Counter with Delta>`] - SimuCrash Operations (privilege: advanced)**

If you specify this parameter, the command displays statistics only about the node or nodes that have the specified number of simucrash operations.

### **[`-notify <Counter with Delta>`] - Notify Operations (privilege: advanced)**

If you specify this parameter, the command displays statistics only about the node or nodes that have the specified number of notify operations.

### **[`-total <Counter64 with Delta>`] - Total Operations (privilege: advanced)**

If you specify this parameter, the command displays statistics only about the node or nodes that have the specified number of total operations.

## **Examples**

The following example displays statistics about the status monitor for a node named node1:

```
cluster1::*> statistics-v1 nfs show-statusmon -node node1
```

Node	Value	Delta
node1	-----success-----	
Null Ops:	0	-
Stat Ops:	0	-
Monitor Ops:	0	-
Unmonitor Ops:	0	-
Unmon All Ops:	0	-
SimuCrash Ops:	0	-
Notify Ops:	0	-
Total Ops:	0	-

Node	Value	Delta
node1	-----failure-----	
Null Ops:	0	-
Stat Ops:	0	-
Monitor Ops:	0	-
Unmonitor Ops:	0	-
Unmon All Ops:	0	-
SimuCrash Ops:	0	-
Notify Ops:	0	-
Total Ops:	0	-

## **statistics-v1 nfs show-v3**

### **Display NFSv3 statistics**

**Availability:** This command is available to *cluster* administrators at the *admin* privilege level.

## Description

The `statistics-v1 nfs show-v3` command displays the following statistics about the NFSv3 operations on each node in the cluster:

- Result of the operations (success or failure)
- Total number of null operations
- Total number of getattr operations
- Total number of setattr operations
- Total number of lookup operations
- Total number of access operations
- Total number of readsymlink operations
- Total number of read operations
- Total number of write operations
- Total number of create operations
- Total number of mkdir operations
- Total number of symlink operations
- Total number of mknod operations
- Total number of remove operations
- Total number of rmdir operations
- Total number of rename operations
- Total number of link operations
- Total number of readdir operations
- Total number of readdirplus operations
- Total number of fsstat operations
- Total number of fsinfo operations
- Total number of pathconf operations
- Total number of commit operations
- Total number of nfsv3 operations
- Percent of null operations
- Percent of getattr operations
- Percent of setattr operations
- Percent of lookup operations
- Percent of access operations
- Percent of readsymlink operations
- Percent of read operations
- Percent of write operations
- Percent of create operations
- Percent of mkdir operations

- Percent of symlink operations
- Percent of mknod operations
- Percent of remove operations
- Percent of rmdir operations
- Percent of rename operations
- Percent of link operations
- Percent of readdir operations
- Percent of readdirplus operations
- Percent of fsstat operations
- Percent of fsinfo operations
- Percent of pathconf operations
- Percent of commit operations

This command is designed to be used to analyze performance characteristics and to help diagnose issues.

## Parameters

**{ [-fields <fieldname>,...]**

If you specify the `-fields <fieldname>`, ... parameter, the command output also includes the specified field or fields. You can use `'-fields ?'` to display the fields to specify.

**| [-instance ] }**

If you specify the `-instance` parameter, the command displays detailed information about all fields.

**[-node {<nodename>|local}] - Node**

If you specify this parameter, the command displays NFSv3 statistics only for the specified node.

**[-result {success|failure|all}] - Result**

If you specify this parameter, the command displays statistics only about the node or nodes that have the specified result (success/failure/all).

**[-null <Counter with Delta>] - Null Operations**

If you specify this parameter, the command displays statistics only about the node or nodes that have the specified number of null operations.

**[-gattr <Counter with Delta>] - GetAttr Operations**

If you specify this parameter, the command displays statistics only about the node or nodes that have the specified number of getattr operations.

**[-sattr <Counter with Delta>] - SetAttr Operations**

If you specify this parameter, the command displays statistics only about the node or nodes that have the specified number of setattr operations.

**[-lookup <Counter with Delta>] - LookUp Operations**

If you specify this parameter, the command displays statistics only about the node or nodes that have the specified number of lookup operations.

#### **[-access <Counter with Delta>] - Access Operations**

If you specify this parameter, the command displays statistics only about the node or nodes that have the specified number of access operations.

#### **[-rsym <Counter with Delta>] - ReadSymlink Operations**

If you specify this parameter, the command displays statistics only about the node or nodes that have the specified number of readsymlink operations.

#### **[-read <Counter with Delta>] - Read Operations**

If you specify this parameter, the command displays statistics only about the node or nodes that have the specified number of read operations.

#### **[-write <Counter with Delta>] - Write Operations**

If you specify this parameter, the command displays statistics only about the node or nodes that have the specified number of write operations.

#### **[-create <Counter with Delta>] - Create Operations**

If you specify this parameter, the command displays statistics only about the node or nodes that have the specified number of create operations.

#### **[-mkdir <Counter with Delta>] - Mkdir Operations**

If you specify this parameter, the command displays statistics only about the node or nodes that have the specified number of mkdir operations.

#### **[-symln <Counter with Delta>] - SymLink Operations**

If you specify this parameter, the command displays statistics only about the node or nodes that have the specified number of symlink operations.

#### **[-mknod <Counter with Delta>] - Mknod Operations**

If you specify this parameter, the command displays statistics only about the node or nodes that have the specified number of mknod operations.

#### **[-remove <Counter with Delta>] - Remove Operations**

If you specify this parameter, the command displays statistics only about the node or nodes that have the specified number of remove operations.

#### **[-rmdir <Counter with Delta>] - Rmdir Operations**

If you specify this parameter, the command displays statistics only about the node or nodes that have the specified number of rmdir operations.

#### **[-rename <Counter with Delta>] - Rename Operations**

If you specify this parameter, the command displays statistics only about the node or nodes that have the specified number of rename operations.

#### **[-link <Counter with Delta>] - Link Operations**

If you specify this parameter, the command displays statistics only about the node or nodes that have the specified number of link operations.

#### **[-rdir <Counter with Delta>] - ReadDir Operations**

If you specify this parameter, the command displays statistics only about the node or nodes that have the

specified number of readdir operations.

**[-rdirp <Counter with Delta>] - ReadDirPlus Operations**

If you specify this parameter, the command displays statistics only about the node or nodes that have the specified number of readdirplus operations.

**[-fsstat <Counter with Delta>] - FsStat Operations**

If you specify this parameter, the command displays statistics only about the node or nodes that have the specified number of fsstat operations.

**[-fsinfo <Counter with Delta>] - FsInfo Operations**

If you specify this parameter, the command displays statistics only about the node or nodes that have the specified number of fsinfo operations.

**[-pconf <Counter with Delta>] - PathConf Operations**

If you specify this parameter, the command displays statistics only about the node or nodes that have the specified number of pathconf operations.

**[-commit <Counter with Delta>] - Commit Operations**

If you specify this parameter, the command displays statistics only about the node or nodes that have the specified number of commit operations.

**[-total <Counter64 with Delta>] - Total Operations**

If you specify this parameter, the command displays statistics only about the node or nodes that have the specified number of total NFSv3 operations.

**[-null-pct <Counter with Delta>] - Percent Null Ops**

If you specify this parameter, the command displays statistics only about the node or nodes that have the specified percentage of null operations.

**[-gattr-pct <Counter with Delta>] - Percent GetAttr Ops**

If you specify this parameter, the command displays statistics only about the node or nodes that have the specified percentage of getattr operations.

**[-sattr-pct <Counter with Delta>] - Percent SetAttr Ops**

If you specify this parameter, the command displays statistics only about the node or nodes that have the specified percentage of setattr operations.

**[-lookup-pct <Counter with Delta>] - Percent LookUp Ops**

If you specify this parameter, the command displays statistics only about the node or nodes that have the specified percentage of lookup operations.

**[-access-pct <Counter with Delta>] - Percent Access Ops**

If you specify this parameter, the command displays statistics only about the node or nodes that have the specified percentage of access operations.

**[-rsym-pct <Counter with Delta>] - Percent ReadSymlink Ops**

If you specify this parameter, the command displays statistics only about the node or nodes that have the specified percentage of readsym link operations.

**[-read-pct <Counter with Delta>] - Percent Read Ops**

If you specify this parameter, the command displays statistics only about the node or nodes that have the specified percentage of read operations.

**[-write-pct <Counter with Delta>] - Percent Write Ops**

If you specify this parameter, the command displays statistics only about the node or nodes that have the specified percentage of write operations.

**[-create-pct <Counter with Delta>] - Percent Create Ops**

If you specify this parameter, the command displays statistics only about the node or nodes that have the specified percentage of create operations.

**[-mkdir-pct <Counter with Delta>] - Percent Mkdir Ops**

If you specify this parameter, the command displays statistics only about the node or nodes that have the specified percentage of mkdir operations.

**[-symlink-pct <Counter with Delta>] - Percent SymLink Ops**

If you specify this parameter, the command displays statistics only about the node or nodes that have the specified percentage of symlink operations.

**[-mknod-pct <Counter with Delta>] - Percent Mknod Ops**

If you specify this parameter, the command displays statistics only about the node or nodes that have the specified percentage of mknod operations.

**[-remove-pct <Counter with Delta>] - Percent Remove Ops**

If you specify this parameter, the command displays statistics only about the node or nodes that have the specified percentage of remove operations.

**[-rmdir-pct <Counter with Delta>] - Percent Rmdir Ops**

If you specify this parameter, the command displays statistics only about the node or nodes that have the specified percentage of rmdir operations.

**[-rename-pct <Counter with Delta>] - Percent Rename Ops**

If you specify this parameter, the command displays statistics only about the node or nodes that have the specified percentage of rename operations.

**[-link-pct <Counter with Delta>] - Percent Link Ops**

If you specify this parameter, the command displays statistics only about the node or nodes that have the specified percentage of link operations.

**[-rmdir-pct <Counter with Delta>] - Percent ReadDir Ops**

If you specify this parameter, the command displays statistics only about the node or nodes that have the specified percentage of readdir operations.

**[-rdirp-pct <Counter with Delta>] - Percent ReadDirPlus Ops**

If you specify this parameter, the command displays statistics only about the node or nodes that have the specified percentage of readdirplus operations.

**[-fsstat-pct <Counter with Delta>] - Percent FsStat Ops**

If you specify this parameter, the command displays statistics only about the node or nodes that have the

specified percentage of fsstat operations.

**[-fsinfo-pct <Counter with Delta>] - Percent FsInfo Ops**

If you specify this parameter, the command displays statistics only about the node or nodes that have the specified percentage of fsinfo operations.

**[-pconf-pct <Counter with Delta>] - Percent PathConf Ops**

If you specify this parameter, the command displays statistics only about the node or nodes that have the specified percentage of pathconf operations.

**[-commit-pct <Counter with Delta>] - Percent Commit Ops**

If you specify this parameter, the command displays statistics only about the node or nodes that have the specified percentage of commit operations.

## Examples

The following example displays statistics about the NFSv3 operations for a node named node1:

```
cluster1::> statistics-v1 nfs show-v3 -node node1
```

Node	Value	Delta	Percent Ops	Delta
node1	-----success-----			
Null Ops:	4	-	7%	-
GetAttr Ops:	10	-	19%	-
SetAttr Ops:	2	-	4%	-
Lookup Ops:	2	-	4%	-
Access Ops:	14	-	26%	-
ReadSymlink Ops:	0	-	0%	-
Read Ops:	0	-	0%	-
Write Ops:	0	-	0%	-
Create Ops:	2	-	4%	-
Mkdir Ops:	1	-	2%	-
Symlink Ops:	0	-	0%	-
Mknod Ops:	0	-	0%	-
Remove Ops:	1	-	2%	-
Rmdir Ops:	0	-	0%	-
Rename Ops:	0	-	0%	-
Link Ops:	0	-	0%	-
ReadDir Ops:	2	-	4%	-
ReadDirPlus Ops:	10	-	19%	-
FsStat Ops:	1	-	2%	-
FsInfo Ops:	5	-	9%	-
PathConf Ops:	0	-	0%	-
Commit Ops:	0	-	0%	-
Total Ops:	54	-		
Node	Value	Delta	Percent Ops	Delta
node1	-----failure-----			



Null Ops:	0	-	0%	-
GetAttr Ops:	0	-	0%	-
SetAttr Ops:	0	-	0%	-
Lookup Ops:	2	-	100%	-
Access Ops:	0	-	0%	-
ReadSymlink Ops:	0	-	0%	-
Read Ops:	0	-	0%	-
Write Ops:	0	-	0%	-
Create Ops:	0	-	0%	-
Mkdir Ops:	0	-	0%	-
Symlink Ops:	0	-	0%	-
Mknod Ops:	0	-	0%	-
Remove Ops:	0	-	0%	-
Rmdir Ops:	0	-	0%	-
Rename Ops:	0	-	0%	-
Link Ops:	0	-	0%	-
ReadDir Ops:	0	-	0%	-
ReadDirPlus Ops:	0	-	0%	-
FsStat Ops:	0	-	0%	-
FsInfo Ops:	0	-	0%	-
PathConf Ops:	0	-	0%	-
Commit Ops:	0	-	0%	-
Total Ops:	2	-		

Node	Value	Delta		Percent Ops	Delta
node1	-----		all	-----	
Null Ops:	4	-		7%	-
GetAttr Ops:	10	-		18%	-
SetAttr Ops:	2	-		4%	-
Lookup Ops:	4	-		7%	-
Access Ops:	14	-		25%	-
ReadSymlink Ops:	0	-		0%	-
Read Ops:	0	-		0%	-
Write Ops:	0	-		0%	-
Create Ops:	2	-		4%	-
Mkdir Ops:	1	-		2%	-
Symlink Ops:	0	-		0%	-
Mknod Ops:	0	-		0%	-
Remove Ops:	1	-		2%	-
Rmdir Ops:	0	-		0%	-
Rename Ops:	0	-		0%	-
Link Ops:	0	-		0%	-
ReadDir Ops:	2	-		4%	-
ReadDirPlus Ops:	10	-		18%	-
FsStat Ops:	1	-		2%	-
FsInfo Ops:	5	-		9%	-

PathConf Ops:	0	-	0%	-
Commit Ops:	0	-	0%	-
Total Ops:	56	-		

## statistics-v1 nfs show-v4

### Display NFSv4 statistics

**Availability:** This command is available to *cluster* administrators at the *admin* privilege level.

### Description

The `statistics-v1 nfs show-v4` command displays the following statistics about the NFSv4 operations on each node in the cluster:

- Result of the operations (success or failure)
- Total number of null operations
- Total number of compound operations
- Total number of access operations
- Total number of close operations
- Total number of commit operations
- Total number of create operations
- Total number of delegpurge operations
- Total number of delegret operations
- Total number of getattr operations
- Total number of getfh operations
- Total number of link operations
- Total number of lock operations
- Total number of lockt operations
- Total number of locku operations
- Total number of lookup operations
- Total number of lookupp operations
- Total number of nverify operations
- Total number of open operations
- Total number of openattr operations
- Total number of openconf operations
- Total number of opendowng operations
- Total number of putfh operations
- Total number of putpubfh operations
- Total number of putrootfh operations
- Total number of read operations

- Total number of readdir operations
- Total number of readlink operations
- Total number of remove operations
- Total number of rename operations
- Total number of renew operations
- Total number of restorefh operations
- Total number of savefh operations
- Total number of secinfo operations
- Total number of setattr operations
- Total number of setcliid operations
- Total number of setcliidconf operations
- Total number of verify operations
- Total number of write operations
- Total number of rellockown operations
- Total number of total operations
- Percent of null operations
- Percent of compound operations
- Percent of access operations
- Percent of close operations
- Percent of commit operations
- Percent of create operations
- Percent of delegpurge operations
- Percent of delegret operations
- Percent of getattr operations
- Percent of getfh operations
- Percent of link operations
- Percent of lock operations
- Percent of lockt operations
- Percent of locku operations
- Percent of lookup operations
- Percent of lookupp operations
- Percent of nverify operations
- Percent of open operations
- Percent of openattr operations
- Percent of openconf operations
- Percent of opendowng operations
- Percent of putfh operations

- Percent of putpubfh operations
- Percent of putrootfh operations
- Percent of read operations
- Percent of readdir operations
- Percent of readlink operations
- Percent of remove operations
- Percent of rename operations
- Percent of renew operations
- Percent of restorefh operations
- Percent of savefh operations
- Percent of secinfo operations
- Percent of setattr operations
- Percent of setcliid operations
- Percent of setCliidconf operations
- Percent of verify operations
- Percent of write operations
- Percent of rellockown operations

This command is designed to be used to analyze performance characteristics and to help diagnose issues.

## Parameters

**{ [-fields <fieldname>,...]**

If you specify the `-fields <fieldname>`, ... parameter, the command output also includes the specified field or fields. You can use `'-fields ?'` to display the fields to specify.

**| [-instance ] }**

If you specify the `-instance` parameter, the command displays detailed information about all fields.

**[-node {<nodename>|local}] - Node**

If you specify this parameter, the command displays NFSv4 statistics only for the specified node.

**[-result {success|failure|all}] - Result**

If you specify this parameter, the command displays statistics only about the node or nodes that have the specified result (success/failure/all).

**[-null <Counter with Delta>] - Null Procedure**

If you specify this parameter, the command displays statistics only about the node or nodes that have the specified number of null operations.

**[-compound <Counter with Delta>] - Compound Procedure**

If you specify this parameter, the command displays statistics only about the node or nodes that have the specified number of compound operations.

#### **[-access <Counter with Delta>] - Access Operations**

If you specify this parameter, the command displays statistics only about the node or nodes that have the specified number of access operations.

#### **[-close <Counter with Delta>] - Close Operations**

If you specify this parameter, the command displays statistics only about the node or nodes that have the specified number of close operations.

#### **[-commit <Counter with Delta>] - Commit Operations**

If you specify this parameter, the command displays statistics only about the node or nodes that have the specified number of commit operations.

#### **[-create <Counter with Delta>] - Create Operations**

If you specify this parameter, the command displays statistics only about the node or nodes that have the specified number of create operations.

#### **[-delpur <Counter with Delta>] - Delempurge Operations**

If you specify this parameter, the command displays statistics only about the node or nodes that have the specified number of delempurge operations.

#### **[-delrtn <Counter with Delta>] - Delempret Operations**

If you specify this parameter, the command displays statistics only about the node or nodes that have the specified number of delempret operations.

#### **[-gattr <Counter with Delta>] - GetAttr Operations**

If you specify this parameter, the command displays statistics only about the node or nodes that have the specified number of getattr operations.

#### **[-getfh <Counter with Delta>] - GetFh Operations**

If you specify this parameter, the command displays statistics only about the node or nodes that have the specified number of getfh operations.

#### **[-link <Counter with Delta>] - Link Operations**

If you specify this parameter, the command displays statistics only about the node or nodes that have the specified number of link operations.

#### **[-lock <Counter with Delta>] - Lock Operations**

If you specify this parameter, the command displays statistics only about the node or nodes that have the specified number of lock operations.

#### **[-lockt <Counter with Delta>] - LockT Operations**

If you specify this parameter, the command displays statistics only about the node or nodes that have the specified number of lockt operations.

#### **[-locku <Counter with Delta>] - LockU Operations**

If you specify this parameter, the command displays statistics only about the node or nodes that have the specified number of locku operations.

#### **[-lookup <Counter with Delta>] - Lookup Operations**

If you specify this parameter, the command displays statistics only about the node or nodes that have the

specified number of lookup operations.

**[-lookpp <Counter with Delta>] - LookupP Operations**

If you specify this parameter, the command displays statistics only about the node or nodes that have the specified number of lookupp operations.

**[-nverify <Counter with Delta>] - Nverify Operations**

If you specify this parameter, the command displays statistics only about the node or nodes that have the specified number of nverify operations.

**[-open <Counter with Delta>] - Open Operations**

If you specify this parameter, the command displays statistics only about the node or nodes that have the specified number of open operations.

**[-opattn <Counter with Delta>] - OpenAttr Operations**

If you specify this parameter, the command displays statistics only about the node or nodes that have the specified number of openattr operations.

**[-opconf <Counter with Delta>] - OpenConf Operations**

If you specify this parameter, the command displays statistics only about the node or nodes that have the specified number of openconf operations.

**[-opndg <Counter with Delta>] - OpenDowng Operations**

If you specify this parameter, the command displays statistics only about the node or nodes that have the specified number of opendowng operations.

**[-putfh <Counter with Delta>] - PutFh Operations**

If you specify this parameter, the command displays statistics only about the node or nodes that have the specified number of putfh operations.

**[-putpfh <Counter with Delta>] - PutPubFh Operations**

If you specify this parameter, the command displays statistics only about the node or nodes that have the specified number of putpubfh operations.

**[-putrfh <Counter with Delta>] - PutRootFh Operations**

If you specify this parameter, the command displays statistics only about the node or nodes that have the specified number of putrootfh operations.

**[-read <Counter with Delta>] - Read Operations**

If you specify this parameter, the command displays statistics only about the node or nodes that have the specified number of read operations.

**[-readdr <Counter with Delta>] - ReadDir Operations**

If you specify this parameter, the command displays statistics only about the node or nodes that have the specified number of readdir operations.

**[-rlink <Counter with Delta>] - ReadLink Operations**

If you specify this parameter, the command displays statistics only about the node or nodes that have the specified number of readlink operations.

#### **[-remove <Counter with Delta>] - Remove Operations**

If you specify this parameter, the command displays statistics only about the node or nodes that have the specified number of remove operations.

#### **[-rename <Counter with Delta>] - Rename Operations**

If you specify this parameter, the command displays statistics only about the node or nodes that have the specified number of rename operations.

#### **[-renew <Counter with Delta>] - Renew Operations**

If you specify this parameter, the command displays statistics only about the node or nodes that have the specified number of renew operations.

#### **[-restfh <Counter with Delta>] - RestoreFh Operations**

If you specify this parameter, the command displays statistics only about the node or nodes that have the specified number of restorefh operations.

#### **[-savefh <Counter with Delta>] - SaveFh Operations**

If you specify this parameter, the command displays statistics only about the node or nodes that have the specified number of savefh operations.

#### **[-secinf <Counter with Delta>] - SecInfo Operations**

If you specify this parameter, the command displays statistics only about the node or nodes that have the specified number of secinfo operations.

#### **[-sattr <Counter with Delta>] - SetAttr Operations**

If you specify this parameter, the command displays statistics only about the node or nodes that have the specified number of setattr operations.

#### **[-sclid <Counter with Delta>] - SetClid Operations**

If you specify this parameter, the command displays statistics only about the node or nodes that have the specified number of setcliid operations.

#### **[-scidc <Counter with Delta>] - SetClidConf Operations**

If you specify this parameter, the command displays statistics only about the node or nodes that have the specified number of setcliidconf operations.

#### **[-verify <Counter with Delta>] - Verify Operations**

If you specify this parameter, the command displays statistics only about the node or nodes that have the specified number of verify operations.

#### **[-write <Counter with Delta>] - Write Operations**

If you specify this parameter, the command displays statistics only about the node or nodes that have the specified number of write operations.

#### **[-relown <Counter with Delta>] - RelLockOwn Operations**

If you specify this parameter, the command displays statistics only about the node or nodes that have the specified number of rellockown operations.

#### **[-total <Counter64 with Delta>] - Total Operations**

If you specify this parameter, the command displays statistics only about the node or nodes that have the

specified number of total nfsv4 operations.

**[-null-pct <Counter with Delta>] - Percent Null Procedure**

If you specify this parameter, the command displays statistics only about the node or nodes that have the specified percentage of null operations.

**[-cmpnd-pct <Counter with Delta>] - Percent Compound Procedure**

If you specify this parameter, the command displays statistics only about the node or nodes that have the specified percentage of compound operations.

**[-access-pct <Counter with Delta>] - Percent Access Operations**

If you specify this parameter, the command displays statistics only about the node or nodes that have the specified percentage of access operations.

**[-close-pct <Counter with Delta>] - Percent Close Operations**

If you specify this parameter, the command displays statistics only about the node or nodes that have the specified percentage of close operations.

**[-commit-pct <Counter with Delta>] - Percent Commit Operations**

If you specify this parameter, the command displays statistics only about the node or nodes that have the specified percentage of commit operations.

**[-create-pct <Counter with Delta>] - Percent Create Operations**

If you specify this parameter, the command displays statistics only about the node or nodes that have the specified percentage of create operations.

**[-delpur-pct <Counter with Delta>] - Percent Delempurge Operations**

If you specify this parameter, the command displays statistics only about the node or nodes that have the specified percentage of delempurge operations.

**[-delrtn-pct <Counter with Delta>] - Percent Delempret Operations**

If you specify this parameter, the command displays statistics only about the node or nodes that have the specified percentage of delempret operations.

**[-gattr-pct <Counter with Delta>] - Percent GetAttr Operations**

If you specify this parameter, the command displays statistics only about the node or nodes that have the specified percentage of getattr operations.

**[-getfh-pct <Counter with Delta>] - Percent GetFh Operations**

If you specify this parameter, the command displays statistics only about the node or nodes that have the specified percentage of getfh operations.

**[-link-pct <Counter with Delta>] - Percent Link Operations**

If you specify this parameter, the command displays statistics only about the node or nodes that have the specified percentage of link operations.

**[-lock-pct <Counter with Delta>] - Percent Lock Operations**

If you specify this parameter, the command displays statistics only about the node or nodes that have the specified percentage of lock operations.



**[-lockt-pct <Counter with Delta>] - Percent LockT Operations**

If you specify this parameter, the command displays statistics only about the node or nodes that have the specified percentage of lockt operations.

**[-locku-pct <Counter with Delta>] - Percent LockU Operations**

If you specify this parameter, the command displays statistics only about the node or nodes that have the specified percentage of locku operations.

**[-lookup-pct <Counter with Delta>] - Percent Lookup Operations**

If you specify this parameter, the command displays statistics only about the node or nodes that have the specified percentage of lookup operations.

**[-lookpp-pct <Counter with Delta>] - Percent LookupP Operations**

If you specify this parameter, the command displays statistics only about the node or nodes that have the specified percentage of lookupp operations.

**[-nverify-pct <Counter with Delta>] - Percent Nverify Operations**

If you specify this parameter, the command displays statistics only about the node or nodes that have the specified percentage of nverify operations.

**[-open-pct <Counter with Delta>] - Percent Open Operations**

If you specify this parameter, the command displays statistics only about the node or nodes that have the specified percentage of open operations.

**[-opattnr-pct <Counter with Delta>] - Percent OpenAttr Operations**

If you specify this parameter, the command displays statistics only about the node or nodes that have the specified percentage of openattr operations.

**[-opconf-pct <Counter with Delta>] - Percent OpenConf Operations**

If you specify this parameter, the command displays statistics only about the node or nodes that have the specified percentage of openconf operations.

**[-opndg-pct <Counter with Delta>] - Percent OpenDowng Operations**

If you specify this parameter, the command displays statistics only about the node or nodes that have the specified percentage of opendowng operations.

**[-putfh-pct <Counter with Delta>] - Percent PutFh Operations**

If you specify this parameter, the command displays statistics only about the node or nodes that have the specified percentage of putfh operations.

**[-putpfh-pct <Counter with Delta>] - Percent PutPubFh Operations**

If you specify this parameter, the command displays statistics only about the node or nodes that have the specified percentage of putpubfh operations.

**[-putrfh-pct <Counter with Delta>] - Percent PutRootFh Operations**

If you specify this parameter, the command displays statistics only about the node or nodes that have the specified percentage of putrootfh operations.

**[-read-pct <Counter with Delta>] - Percent Read Operations**

If you specify this parameter, the command displays statistics only about the node or nodes that have the

specified percentage of read operations.

**[-readdr-pct <Counter with Delta>] - Percent ReadDir Operations**

If you specify this parameter, the command displays statistics only about the node or nodes that have the specified percentage of readdr operations.

**[-rlink-pct <Counter with Delta>] - Percent ReadLink Operations**

If you specify this parameter, the command displays statistics only about the node or nodes that have the specified percentage of readlink operations.

**[-remove-pct <Counter with Delta>] - Percent Remove Operations**

If you specify this parameter, the command displays statistics only about the node or nodes that have the specified percentage of remove operations.

**[-rename-pct <Counter with Delta>] - Percent Rename Operations**

If you specify this parameter, the command displays statistics only about the node or nodes that have the specified percentage of rename operations.

**[-renew-pct <Counter with Delta>] - Percent Renew Operations**

If you specify this parameter, the command displays statistics only about the node or nodes that have the specified percentage of renew operations.

**[-restfh-pct <Counter with Delta>] - Percent RestoreFh Operations**

If you specify this parameter, the command displays statistics only about the node or nodes that have the specified percentage of restorefh operations.

**[-savefh-pct <Counter with Delta>] - Percent SaveFh Operations**

If you specify this parameter, the command displays statistics only about the node or nodes that have the specified percentage of savefh operations.

**[-secinf-pct <Counter with Delta>] - Percent SecInfo Operations**

If you specify this parameter, the command displays statistics only about the node or nodes that have the specified percentage of secinfo operations.

**[-sattr-pct <Counter with Delta>] - Percent SetAttr Operations**

If you specify this parameter, the command displays statistics only about the node or nodes that have the specified percentage of setattr operations.

**[-sclid-pct <Counter with Delta>] - Percent SetClid Operations**

If you specify this parameter, the command displays statistics only about the node or nodes that have the specified percentage of setclid operations.

**[-scidc-pct <Counter with Delta>] - Percent SetClidConf Operations**

If you specify this parameter, the command displays statistics only about the node or nodes that have the specified percentage of setclidconf operations.

**[-verify-pct <Counter with Delta>] - Percent Verify Operations**

If you specify this parameter, the command displays statistics only about the node or nodes that have the specified percentage of verify operations.

### **[-write-pct <Counter with Delta>] - Percent Write Operations**

If you specify this parameter, the command displays statistics only about the node or nodes that have the specified percentage of write operations.

### **[-relovn-pct <Counter with Delta>] - Percent RelLockOwn Operations**

If you specify this parameter, the command displays statistics only about the node or nodes that have the specified percentage of relockown operations.

## **Examples**

The following example displays statistics about the NFSv4 operations for a node named node1:

```
cluster1::> statistics-v1 nfs show-v4 -node node1
```

Node	Value	Delta	Percent Ops	Delta
node1	-----success-----			
Null Procs:	2	-	1%	-
Cmpnd Procs:	92	-		-
Access Ops:	16	-	6%	-
Close Ops:	8	-	3%	-
Commit Ops:	0	-	0%	-
Create Ops:	0	-	0%	-
Delpur Ops:	0	-	0%	-
Delrtn Ops:	0	-	0%	-
Getattr Ops:	76	-	27%	-
Getfh Ops:	22	-	8%	-
Link Ops:	0	-	0%	-
Lock Ops:	0	-	0%	-
Lockt Ops:	0	-	0%	-
Locku Ops:	0	-	0%	-
Lookup Ops:	13	-	5%	-
Lookupp Ops:	0	-	0%	-
Nverify Ops:	0	-	0%	-
Open Ops:	8	-	3%	-
Openattr Ops:	0	-	0%	-
Openconf Ops:	0	-	0%	-
Opendowng Ops:	0	-	0%	-
Putfh Ops:	92	-	32%	-
Putpubfh Ops:	0	-	0%	-
Putrootfh Ops:	2	-	1%	-
Read Ops:	0	-	0%	-
Readdir Ops:	2	-	1%	-
Readlink Ops:	0	-	0%	-
Remove Ops:	5	-	2%	-
Rename Ops:	3	-	1%	-
Renew Ops:	0	-	0%	-
Restorefh Ops:	11	-	4%	-

Savefh Ops:	13	-	5%	-
Secinfo Ops:	0	-	0%	-
Setattr Ops:	8	-	3%	-
Setclid Ops:	1	-	0%	-
Setclidconf Ops:	1	-	0%	-
Verify Ops:	0	-	0%	-
Write Ops:	3	-	1%	-
Rlockown Ops:	0	-	0%	-
Total Ops:	286	-		
Node	Value	Delta	Percent Ops	Delta
node1	-----	failure	-----	
Null Procs:	0	-	0%	-
Cmpnd Procs:	0	-		-
Access Ops:	0	-	0%	-
Close Ops:	0	-	0%	-
Commit Ops:	0	-	0%	-
Create Ops:	0	-	0%	-
Delpur Ops:	0	-	0%	-
Delrtn Ops:	0	-	0%	-
Getattr Ops:	0	-	0%	-
Getfh Ops:	0	-	0%	-
Link Ops:	0	-	0%	-
Lock Ops:	0	-	0%	-
Lockt Ops:	0	-	0%	-
Locku Ops:	0	-	0%	-
Lookup Ops:	5	-	63%	-
Lookupp Ops:	0	-	0%	-
Nverify Ops:	0	-	0%	-
Open Ops:	2	-	25%	-
Openattr Ops:	0	-	0%	-
Openconf Ops:	0	-	0%	-
Opendowng Ops:	0	-	0%	-
Putfh Ops:	0	-	0%	-
Putpubfh Ops:	0	-	0%	-
Putrootfh Ops:	0	-	0%	-
Read Ops:	0	-	0%	-
Readdir Ops:	0	-	0%	-
Readlink Ops:	0	-	0%	-
Remove Ops:	0	-	0%	-
Rename Ops:	0	-	0%	-
Renew Ops:	0	-	0%	-
Restorefh Ops:	0	-	0%	-
Savefh Ops:	0	-	0%	-
Secinfo Ops:	0	-	0%	-
Setattr Ops:	1	-	13%	-
Setclid Ops:	0	-	0%	-

Setclidconf Ops:	0	-	0%	-
Verify Ops:	0	-	0%	-
Write Ops:	0	-	0%	-
Rlockown Ops:	0	-	0%	-
Total Ops:	8	-		
Node	Value	Delta	Percent Ops	Delta
node1	-----		all	-----
Null Procs:	2	-	1%	-
Cmpnd Procs:	92	-		-
Access Ops:	16	-	5%	-
Close Ops:	8	-	3%	-
Commit Ops:	0	-	0%	-
Create Ops:	0	-	0%	-
Delpur Ops:	0	-	0%	-
Delrtn Ops:	0	-	0%	-
Getattr Ops:	76	-	26%	-
Getfh Ops:	22	-	7%	-
Link Ops:	0	-	0%	-
Lock Ops:	0	-	0%	-
Lockt Ops:	0	-	0%	-
Locku Ops:	0	-	0%	-
Lookup Ops:	18	-	6%	-
Lookupp Ops:	0	-	0%	-
Nverify Ops:	0	-	0%	-
Open Ops:	10	-	3%	-
Openattr Ops:	0	-	0%	-
Openconf Ops:	0	-	0%	-
Opendowng Ops:	0	-	0%	-
Putfh Ops:	92	-	31%	-
Putpubfh Ops:	0	-	0%	-
Putrootfh Ops:	2	-	1%	-
Read Ops:	0	-	0%	-
Readdir Ops:	2	-	1%	-
Readlink Ops:	0	-	0%	-
Remove Ops:	5	-	2%	-
Rename Ops:	3	-	1%	-
Renew Ops:	0	-	0%	-
Restorefh Ops:	11	-	4%	-
Savefh Ops:	13	-	4%	-
Secinfo Ops:	0	-	0%	-
Setattr Ops:	9	-	3%	-
Setclid Ops:	1	-	0%	-
Setclidconf Ops:	1	-	0%	-
Verify Ops:	0	-	0%	-
Write Ops:	3	-	1%	-
Rlockown Ops:	0	-	0%	-

## statistics-v1 protocol-request-size commands

### statistics-v1 protocol-request-size show

Display size statistics for CIFS and NFS protocol read and write requests

**Availability:** This command is available to *cluster* administrators at the *admin* privilege level.

#### Description

This command displays size statistics for CIFS and NFS protocol read and write requests. The output of the command includes the following information:

- Node name
- Statistic type
- Average size of request
- Total request count
- Current number of requests in each category of request size
- Number of requests after the command was last executed

#### Parameters

**{ [-fields <fieldname>,...]**

If you specify the `-fields <fieldname>`, ... parameter, the command output also includes the specified field or fields. You can use `'-fields ?'` to display the fields to specify.

**| [-instance ] }**

If you specify the `-instance` parameter, the command displays detailed information about all fields.

**[-node {<nodename>|local}] - Node**

If this parameter is specified, the command displays statistics only for the specified node.

**[-stat-type <Protocol Type>] - RW Request Stat Type**

If this parameter is specified, the command displays only the statistics of the specified protocol type.

Protocol types include the following: `cifs_read`, `cifs_write`, `nfs2_read`, `nfs2_write`, `nfs3_read`, and `nfs3_write`.

**[-total-req-count <Counter64 with Delta>] - Total Request Count**

If this parameter is specified, the command displays only statistics with the specified total number of requests.

**[-average-size <Counter64 with Delta>] - Average Request Size**

If this parameter is specified, the command displays only statistics with the specified average request size.

**[-histo08 <Counter64 with Delta>] - 0 - 511**

If this parameter is specified, the command displays only statistics with the specified number of requests in

this size range.

**[-histo09 <Counter64 with Delta>] - 512 - 1023**

If this parameter is specified, the command displays only statistics with the specified number of requests in this size range.

**[-histo10 <Counter64 with Delta>] - 1024 - 2047**

If this parameter is specified, the command displays only statistics with the specified number of requests in this size range.

**[-histo11 <Counter64 with Delta>] - 2048 - 4096**

If this parameter is specified, the command displays only statistics with the specified number of requests in this size range.

**[-histo12 <Counter64 with Delta>] - 4096 - 8191**

If this parameter is specified, the command displays only statistics with the specified number of requests in this size range.

**[-histo13 <Counter64 with Delta>] - 8192 - 16K**

If this parameter is specified, the command displays only statistics with the specified number of requests in this size range.

**[-histo14 <Counter64 with Delta>] - 16K - 32K**

If this parameter is specified, the command displays only statistics with the specified number of requests in this size range.

**[-histo15 <Counter64 with Delta>] - 32K - 64K**

If this parameter is specified, the command displays only statistics with the specified number of requests in this size range.

**[-histo16 <Counter64 with Delta>] - 64K - 128K**

If this parameter is specified, the command displays only statistics with the specified number of requests in this size range.

**[-histo17 <Counter64 with Delta>] - Greater than 128K**

If this parameter is specified, the command displays only statistics with the specified number of requests in this size range.

## Examples

The following example displays the number of NFS v3 requests in each size range for only one node in the cluster.

```
cluster1::> statistics protocol-request-size show -stat-type nfs3_* -node
node0
```

Node:	node0	
Stat Type:	nfs3_read	
	Value	Delta
-----	-----	-----
Average Size:	6	-
Total Request Count:		
	465947409	-
0-511:	567023	-
512-1023:	4306	-
1K-2047:	175	-
2K-4095:	160404	-
4K-8191:	537576	-
8K-16383:	1742701	-
16K-32767:	1418620	-
32K-65535:		
	461516604	-
64K-131071:	0	-
128K - :	0	-

Node:	node0	
Stat Type:	nfs3_write	
	Value	Delta
-----	-----	-----
Average Size:	0	-
Total Request Count:		
	199294247	-
0-511:	36556	-
512-1023:	3683	-
1K-2047:	745	-
2K-4095:	1413	-
4K-8191:	28643	-
8K-16383:		
	199223207	-
16K-32767:	0	-
32K-65535:	0	-
64K-131071:	0	-
128K - :	0	-



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