



# **network tuning commands**

## **ONTAP 9.13.1 commands**

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# Table of Contents

- network tuning commands ..... 1
  - network tuning icmp modify ..... 1
  - network tuning icmp show ..... 1
  - network tuning icmp6 modify ..... 2
  - network tuning icmp6 show ..... 3
  - network tuning tcp modify ..... 4
  - network tuning tcp show ..... 4

# network tuning commands

## network tuning icmp modify

Modify ICMP tuning options

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

### Description

This command displays options which can be used to fine tune icmp protocol behavior.

### Parameters

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

Sets this parameter to indicate on which node the ICMP tuning options are modified.

**[-is-drop-redirect-enabled {true|false}] - Drop redirect ICMP**

Sets this parameter to drop redirect ICMP message.

**[-tx-icmp-limit <integer>] - Maximum number of ICMP packets sent per second**

Sets the maximum number of ICMP messages including TCP RSTs can be sent per second.

**[-redirect-timeout <integer>] - Maximum seconds for route redirect timeout**

Sets this parameter to indicate the number of seconds after which the route is deleted. Value of zero means infinity. The default value is 300 seconds.

### Examples

```
cluster1:> network tuning icmp modify -node node1 -is-drop-redirect
-enabled false
```

## network tuning icmp show

Show ICMP tuning options

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

### Description

This command displays the current state of the ICMP tuning options for the given node.

### 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 ] }**

Displays all ICMP tuning options.

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

Specifies the node for which the ICMP tuning options are displayed.

**[-is-drop-redirect-enabled {true|false}] - Drop redirect ICMP**

Displays all entries that match the "is-drop-redirect-enabled" value.

**[-tx-icmp-limit <integer>] - Maximum number of ICMP packets sent per second**

Displays all entries that match the "tx-icmp-limit" value.

**[-redirect-timeout <integer>] - Maximum seconds for route redirect timeout**

Displays all the entries that match the "redirect-timeout" value.

## Examples

```
cluster1::> network tuning icmp show
Drop Redirect Maximum ICMP      Redirect Timeout
Node      ICMP      Sends per Second  in Seconds
-----
node1
           true      100              300
```

## network tuning icmp6 modify

Modify ICMPv6 tuning options

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

### Description

This command displays options which can be used to fine tune icmpv6 protocol behavior.

### Parameters

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

Sets this parameter to indicate on which node the ICMPv6 tuning options are modified.

**[-is-v6-redirect-accepted {true|false}] - Accept redirects via ICMPv6**

Sets this parameter to indicate whether or not redirect ICMPv6 messages are accepted.

**[-redirect-v6-timeout <integer>] - Maximum seconds for route redirect timeout**

Sets this parameter to indicate the number of seconds after which the route is deleted. Value of zero means infinity. The default value is 300 seconds.

**`[-tx-icmp6-err-limit <integer>]` - Maximum number of ICMPv6 error messages sent per second**  
Sets the maximum number of ICMPv6 error messages that can be sent per second.

## Examples

```
cluster1::> network tuning icmp6 modify -node node1 -is-v6-redirect  
-accepted false
```

## network tuning icmp6 show

Show ICMPv6 tuning options

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

### Description

This command displays the current state of the ICMPv6 tuning options for the given node.

### 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 ]`**

Displays all ICMPv6 tuning options.

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

Specifies the node for which the ICMPv6 tuning options are displayed.

**`[-is-v6-redirect-accepted {true|false}]` - Accept redirects via ICMPv6**

Displays all entries that match the "is-v6-redirect-accepted" value.

**`[-redirect-v6-timeout <integer>]` - Maximum seconds for route redirect timeout**

Displays all the entries that match the "redirect-v6-timeout" value.

**`[-tx-icmp6-err-limit <integer>]` - Maximum number of ICMPv6 error messages sent per second**

Displays all entries that match the "tx-icmp6-err-limit" value.

## Examples

```
cluster1::> network tuning icmp6 show
Accept Redirect Maximum ICMPv6 Error Redirect Timeout
Node      ICMPv6      Sends per Second      in Seconds
-----
node1
      true      100      300
```

## network tuning tcp modify

Modify TCP tuning options

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

### Description

This commands sets TCP tuning options on the node.

### Parameters

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

Indicates on which node the TCP tuning options will be modified.

**[-is-path-mtu-discovery-enabled {true|false}] - Path MTU discovery enabled**

Enables path MTU discovery feature.

**[-is-rfc3465-enabled {true|false}] - RFC3465 enabled**

Enables the rfc3465 feature.

**[-max-cwnd-increment <integer>] - Maximum congestion window segments incrementation**

Sets the maximum congestion window increment segments during slow start.

**[-is-rfc3390-enabled {true|false}] - RFC3390 enabled**

Enables the rfc3390 feature.

**[-is-sack-enabled {true|false}] - SACK support enabled**

Enables the selective ACK feature.

### Examples

```
cluster1::> network tuning tcp modify -node node1 -is-path-mtu-discovery
-enabled false
```

## network tuning tcp show

Show TCP tuning options

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

## Description

This command displays the current state of the TCP tuning options for the given node.

## 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 ] }**

Displays all TCP tuning options.

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

Specifies the node for which the TCP tuning options will be displayed.

**[-is-path-mtu-discovery-enabled {true|false}] - Path MTU discovery enabled**

Displays all entries that match the "is-path-mtu-discovery-enabled" value.

**[-is-rfc3465-enabled {true|false}] - RFC3465 enabled**

Displays all entries that match the "is-rfc3465-enabled" value.

**[-max-cwnd-increment <integer>] - Maximum congestion window segments incrementation**

Displays all entries that match the "max-cwnd-increment" value.

**[-is-rfc3390-enabled {true|false}] - RFC3390 enabled**

Displays all entries that match the "is-rfc3390-enabled" value.

**[-is-sack-enabled {true|false}] - SACK support enabled**

Displays all entries that match the "is-sack-enabled" value.

## Examples

```
cluster1::> network tuning tcp show
```

	Path MTU		Maximum		Selective
Node	Discovery	RFC3465	Congestion Window	RFC3390	Ack
	Enabled	Enabled	Incrementation	Enabled	Enabled
-----	-----	-----	-----	-----	-----
node1					
	true	true	2	true	true

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