



# **network tuning commands**

## **ONTAP 9.12.1 commands**

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# 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 command 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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