



security config commands

ONTAP 9.6 commands

NetApp
June 10, 2024

Table of Contents

- security config commands 1
- security config modify 1
- security config show 2
- security config ocsf disable 4
- security config ocsf enable 5
- security config ocsf show 6
- security config status show 8

security config commands

security config modify

Modify Security Configuration Options

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

Description

The `security config modify` command modifies the existing cluster-wide security configuration. If you enable FIPS-compliant mode, the cluster will automatically select only compliant TLS protocols (currently TLSv1.2 and TLSv1.1). Non-compliant protocols are not enabled when FIPS-compliant mode is disabled. Use the `-supported-protocols` parameter to include or exclude TLS protocols independently from the FIPS mode. All protocols at or above the lowest version specified will be enabled, even those not explicitly specified. By default, FIPS mode is disabled, and Data ONTAP supports the TLSv1.2, TLSv1.1 and TLSv1 protocols. For backward compatibility, Data ONTAP supports adding SSLv3 to the supported-protocols list when FIPS mode is disabled. Use the `-supported-ciphers` parameter to configure only AES, or AES and 3DES, or disable weak ciphers such as RC4 by specifying `!RC4`. By default the supported-cipher setting is `ALL:!LOW:!aNULL:!EXP:!eNULL`. This setting means that all supported cipher suites for the protocols are enabled, except the ones with no authentication, no encryption, no exports, and low encryption cipher suites (currently those using 64-bit or 56-bit encryption algorithms). Select a cipher suite which is available with the corresponding selected protocol. An invalid configuration may cause some functionality to fail to operate properly. Refer to "<https://www.openssl.org/docs/apps/ciphers.html>" published by the OpenSSL software foundation for the correct cipher string syntax. After modifying the security configuration, reboot all the nodes manually.

Parameters

`-interface <SSL>` - FIPS-Compliant Interface (privilege: advanced)

Selects the FIPS-compliant interface. Default is `SSL`.

`[-is-fips-enabled {true|false}]` - FIPS Mode (privilege: advanced)

Enables or disables FIPS-compliant mode for the entire cluster. Default is `false`.

`[-supported-protocols {TLSv1.2|TLSv1.1|TLSv1|SSLv3}]` - Supported Protocols (privilege: advanced)

Selects the supported protocols for the selected interface. Default is `TLSv1.2, TLSv1.1, TLSv1`

`[-supported-ciphers <Cipher String>]` - Supported Ciphers (privilege: advanced)

Selects the supported cipher suites for the selected interface. Default is

`ALL:!LOW:!aNULL:!EXP:!eNULL`.

Examples

The following command enables FIPS mode in the cluster. (Default setting for FIPS mode is `false`)

```
cluster1::> security config modify -interface SSL -is-fips-enabled true
```

The following command modifies supported protocols to TLSv1.2 and TLSv1.1 in the cluster. (Default setting for supported protocols is `TLSv1.2, TLSv1.1, TLSv1`)

```
cluster1::*> security config modify -interface SSL -supported-protocols
TLSv1.2, TLSv1.1
```

The following command modifies supported ciphers to `ALL:!LOW:!aNULL:!EXP:!eNULL:!RC4` in the cluster. (Default setting for supported ciphers is `ALL:!LOW:!aNULL:!EXP:!eNULL`)

```
cluster1::*> security config modify -interface SSL -supported-ciphers
ALL:!LOW:!aNULL:!EXP:!eNULL:!RC4
```

security config show

Display Security Configuration Options

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

Description

The `security config show` command displays the security configurations of the cluster in advanced privilege mode.

Default values are as follows:

- SSL FIPS mode: disabled
- Supported protocols: TLSv1.2, TLSv1.1, TLSv1
- Supported ciphers: ALL:!LOW:!aNULL:!EXP:!eNULL

The default cipher suites represent all suites for the listed protocols except those that have no authentication, no encryption, no exports, and low encryption (below 64 or 56 bit).

Enabling FIPS mode will cause the entire cluster to use FIPS-compliant crypto operations only.

Use the [security config modify](#) command to change the protocols and ciphers that the cluster will support. When all the nodes in the cluster are updated with the modified settings, the cluster security config ready value will be shown as `yes` .

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.

[`-interface <SSL>`] - FIPS-Compliant Interface (privilege: advanced)

Displays configurations that match the specified value for the interface.

[`-is-fips-enabled {true|false}`] - FIPS Mode (privilege: advanced)

Display configurations that match the specified value for FIPS mode.

[`-supported-protocols {TLSv1.2|TLSv1.1|TLSv1|SSLv3}`] - Supported Protocols (privilege: advanced)

Displays configurations that match the specified protocols.

[`-supported-ciphers <Cipher String>`] - Supported Ciphers (privilege: advanced)

Displays the configurations that match the specified supported ciphers.

Examples

The following example shows the default security configurations for a cluster.

```
cluster1::> security config show
                Cluster                               Cluster
Security
Interface FIPS Mode  Supported Protocols  Supported Ciphers  Config
Ready
-----
-----
SSL        false      TLSv1.2, TLSv1.1, TLSv1  ALL:!LOW:
                !aNULL:!EXP:
                !eNULL
```

The following example shows the security configuration after FIPS mode has been enabled.

```
cluster1::> security config show
                Cluster                               Cluster
Security
Interface FIPS Mode  Supported Protocols  Supported Ciphers  Config
Ready
-----
-----
SSL        true       TLSv1.2, TLSv1.1      ALL:!LOW:
                !aNULL:!EXP:
                !eNULL:!RC4
```

Related Links

- [security config modify](#)

security config ocsf disable

Disable OCSP for one or more selected applications

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

Description

The `security config ocsf disable` command disables the OCSP-based certificate status check for applications supporting SSL/TLS communications. For more information about the OCSP-based certificate status check for applications supporting SSL/TLS communications, see the [security config ocsf show](#) command.

Parameters

-application <Application supporting SSL/TLS protocol>,... - Application Name (privilege: advanced)

Use this parameter to specify the application to disable the OCSP support. To disable all applications, the value 'all' can be used. Note: You cannot specify the value 'all' with other applications.

Examples

The following example disables the OCSP support for AutoSupport and EMS applications:

```
cluster1::*> security config ocsf disable -application autosupport,ems

cluster1::> security config ocsf show
Application          OCSP Enabled?
-----
autosupport          false
audit_log            true
fabricpool           true
ems                  false
kmip                  true
ldap                  true
6 entries were displayed.
```

The following example disables the OCSP support for all applications:

```

cluster1::*> security config ocsf disable -application all
Warning: OCSF will be disabled for all applications. Any previous
modifications
    will be ignored.
    Do you want to continue? {y|n}: y

cluster1::*> security config ocsf show
Application          OCSF Enabled?
-----
autosupport          false
audit_log             false
fabricpool            false
ems                   false
kmip                  false
ldap                  false
6 entries were displayed.

```

Related Links

- [security config ocsf show](#)

security config ocsf enable

Enable OCSF for one or more selected applications

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

Description

The `security config ocsf enable` command enables the OCSF-based certificate status check for applications supporting SSL/TLS communications. For more information about the OCSF-based certificate status check for applications supporting SSL/TLS communications, see the [security config ocsf show](#) command.

Parameters

-application <Application supporting SSL/TLS protocol>,... - List of Applications (privilege: advanced)

Use this parameter to specify the application to enable the OCSF support. To enable all applications, the value 'all' can be used. Note: You cannot specify the value 'all' with other applications.

Examples

The following example enables the OCSF support for AutoSupport and EMS applications:

```

cluster1::*> security config ocsf enable -application autosupport,ems

cluster1::> security config ocsf show
Application          OCSP Enabled?
-----
autosupport         true
audit_log           false
fabricpool          false
ems                 true
kmip                false
ldap               false
6 entries were displayed.

```

The following example enables the OCSP support for all applications:

```

cluster1::*> security config ocsf enable -application all
Warning: OCSP will be enabled for all applications. Any previous
modifications
    will be ignored.
    Do you want to continue? {y|n}: y

cluster1::*> security config ocsf show
Application          OCSP Enabled?
-----
autosupport         true
audit_log           true
fabricpool          true
ems                 true
kmip                true
ldap               true
6 entries were displayed.

```

Related Links

- [security config ocsf show](#)

security config ocsf show

Show Online Certificate Status Protocol (OCSP) settings

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

Description

The `security config ocsf show` command displays the support status of the OCSP-based certificate status check for applications supporting SSL/TLS communications. If the OCSP support is enabled for an application, this check is done in addition to the certificate chain validation as part of the SSL handshake process. The OCSP-based certificate status check is done for all the certificates in the chain, provided that each certificate has the OCSP URI access points mentioned in them. If no access points are specified, the OCSP-based certificate revocation status check is ignored for that certificate and checking continues for the rest of the certificates in the chain.

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.

[-application <Application supporting SSL/TLS protocol>] - Application Name (privilege: advanced)

Selects the application that matches this parameter value. Applications include:

- `autosupport` - AutoSupport
- `audit_log` - Audit Logging
- `fabricpool` - External capacity tiers
- `ems` - Event Management System
- `kmip` - Key Management Interoperability Protocol
- `ldap_ad` - Lightweight Directory Access Protocol - Active Directory (query and modify items in Active Directory)
- `ldap_nis_namemap` - Lightweight Directory Access Protocol - NIS and Name Mapping (query Unix user, group, netgroup and name mapping information)

[-is-ocsp-enabled {true|false}] - Is OCSP-based Certificate Status Check Enabled? (privilege: advanced)

Selects the application that matches this parameter value.

Examples

The following example displays the OCSP support for the applications supporting SSL/TLS communications:

```

cluster1::> security config ocsf show
Application          OCSP Enabled?
-----
autosupport         true
audit_log           false
fabricpool          false
ems                 true
kmip                false
ldap               false
6 entries were displayed.

```

The following example displays the OCSP support for AutoSupport:

```

cluster1:*> security config ocsf show -application autosupport
Application Name: autosupport
Is OCSP-based Certificate Status Check Enabled?: true

```

security config status show

Display Security Configuration Status

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

Description

The `security config status show` command displays the required reboot status of the nodes in the cluster after security configuration settings have been modified using the [security config modify](#) command. Use this command to monitor the status of the required reboot process. When all nodes have rebooted, the cluster is ready to use the new security configuration settings.

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 Name (privilege: advanced)

Select the node whose reboot-status you want to display.

[-reboot-needed {true|false}] - Reboot Needed (privilege: advanced)

reboot-needed status of the node that tells if the node requires a reboot for security configuration to take effect.

Examples

The following example displays the status of a configuration change in a four-node cluster.

```
cluster1::> security config status show
Nodes in Cluster      Reboot Needed
-----
node1                 true
node2                 true
node3                 false
node4                 false
4 entries were displayed.
```

The following example shows the output of the command after the cluster reboot process is complete.

```
cluster1::> security config status show
Nodes in Cluster      Reboot Needed
-----
node1                 false
node2                 false
node3                 false
node4                 false
4 entries were displayed.
```

Related Links

- [security config modify](#)

Copyright information

Copyright © 2024 NetApp, Inc. All Rights Reserved. Printed in the U.S. No part of this document covered by copyright may be reproduced in any form or by any means—graphic, electronic, or mechanical, including photocopying, recording, taping, or storage in an electronic retrieval system—without prior written permission of the copyright owner.

Software derived from copyrighted NetApp material is subject to the following license and disclaimer:

THIS SOFTWARE IS PROVIDED BY NETAPP “AS IS” AND WITHOUT ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, WHICH ARE HEREBY DISCLAIMED. IN NO EVENT SHALL NETAPP BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

NetApp reserves the right to change any products described herein at any time, and without notice. NetApp assumes no responsibility or liability arising from the use of products described herein, except as expressly agreed to in writing by NetApp. The use or purchase of this product does not convey a license under any patent rights, trademark rights, or any other intellectual property rights of NetApp.

The product described in this manual may be protected by one or more U.S. patents, foreign patents, or pending applications.

LIMITED RIGHTS LEGEND: Use, duplication, or disclosure by the government is subject to restrictions as set forth in subparagraph (b)(3) of the Rights in Technical Data -Noncommercial Items at DFARS 252.227-7013 (FEB 2014) and FAR 52.227-19 (DEC 2007).

Data contained herein pertains to a commercial product and/or commercial service (as defined in FAR 2.101) and is proprietary to NetApp, Inc. All NetApp technical data and computer software provided under this Agreement is commercial in nature and developed solely at private expense. The U.S. Government has a non-exclusive, non-transferrable, nonsublicensable, worldwide, limited irrevocable license to use the Data only in connection with and in support of the U.S. Government contract under which the Data was delivered. Except as provided herein, the Data may not be used, disclosed, reproduced, modified, performed, or displayed without the prior written approval of NetApp, Inc. United States Government license rights for the Department of Defense are limited to those rights identified in DFARS clause 252.227-7015(b) (FEB 2014).

Trademark information

NETAPP, the NETAPP logo, and the marks listed at <http://www.netapp.com/TM> are trademarks of NetApp, Inc. Other company and product names may be trademarks of their respective owners.