



system license commands

ONTAP 9.6 commands

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system license commands

system license add

Add one or more licenses

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

Description

This command adds a license to a cluster. To add a license you must specify a valid license key, which you can obtain from your sales representative.

Parameters

-license-code <License Code V2>, ... - License Code V2

This parameter specifies the key of the license that is to be added to the cluster. The parameter accepts a list of 28 digit upper-case alphanumeric character keys.

Examples

The following example adds a list of licenses with the keys AAAAAAAAAAAAAAAAAAAAAAAAAAAAAA and BBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBB to the cluster

```
cluster1::> system license add -license-code AAAAAAAAAAAAAAAAAAAAAAAAAAAAAA,  
BBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBB
```

system license clean-up

Remove unnecessary licenses

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

Description

This command manages licenses in the cluster that have no effect, and so can be removed. Licenses that have expired or are not affiliated with any controller in the cluster are deleted by this command. Licenses that cannot be deleted are displayed with reasons for the non-deletion.

Parameters

[-unused <true>] - Remove unused licenses

If you use this parameter, the command removes licenses in the cluster that are not affiliated with any controller in the cluster.

[-expired <true>] - Remove expired licenses

If you use this parameter, the command removes licenses in the cluster that have expired.

[-n, -simulate <true>] - Simulate Only

If you use this parameter, the command will not remove the licenses. Instead it will display the licenses that will be removed if this parameter was not provided.

Examples

The following example simulates and displays the licenses that can be cleaned up:

```
cluster-1::> system license clean-up -expired -unused
```

The following licenses were safely deleted:

Serial number: 1-80-000011

Owner: cdancluster-1

Package	Reason
---------	--------

CIFS	License has expired
------	---------------------

Serial number: 4067154888

Owner: none

Package	Reason
---------	--------

Cloud	License has expired
-------	---------------------

Serial number: 1-81-00000000000000004067154999

Owner: none

Package	Reason
---------	--------

iSCSI	License unused by any node in the cluster
-------	---

The following licenses are either expired or unused but cannot be safely deleted:

Serial number: 4067154778

Owner: node1

Package	Reason
---------	--------

Cloud	Feature would be impaired upon removal
-------	--

Serial number: 4067154779

Owner: node2

Package	Reason
---------	--------

Cloud	System generated license
-------	--------------------------

system license delete

Delete a license

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

Description

This command deletes a license from a cluster.

Parameters

-serial-number <text> - Serial Number

This parameter specifies the serial number of the license that is to be deleted from the cluster. If this parameter is not provided, the default value is the serial number of the cluster.

-package <Licensable Package> - Package

This parameter specifies the name of the package that is to be deleted from the cluster.

Examples

The following example deletes a license named CIFS and serial number 1-81-000000000000000000123456 from the cluster:

```
cluster1::> system license delete -serial-number 1-81-  
000000000000000000123456 -package CIFS
```

system license show-aggregates

Display status of aggregates leases and license used.

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

Description

This command displays the status of all ONTAP aggregates.

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 use this parameter, the command displays information only about aggregates that match the given node.

[-aggr-name <text>] - Aggregate Name

If you use this parameter, the command displays information only about aggregate that match the given

aggregate.

[-aggr-size {<integer>[KB|MB|GB|TB|PB]}] - Aggregate Size

If you use this parameter, the command displays information only about aggregates that match the given physical size of an aggregate.

[-licensed-size {<integer>[KB|MB|GB|TB|PB]}] - Licensed Size

If you use this parameter, the command displays information only about aggregates that match the given licensed-size.

[-expiration <MM/DD/YYYY HH:MM:SS>] - Lease Expiration

If you use this parameter, the command displays information only about aggregates that match the given lease expiration.

[-status <AggrLicStatus>] - Aggregate Status

If you use this parameter, the command displays information only about aggregates that match the given status.

[-compliant {true|false}] - Is Aggregate Compliant

If you use this parameter, the command displays information only about aggregates that match the given state of compliance.

[-aggr-uuid <UUID>] - Aggregate UUID

If you use this parameter, the command displays information only about aggregate that match the given aggregate uuid.

Examples

The following example displays the license status of the cluster:

```
cluster1::> system license show-aggregates
Licensed Physical
Node      Aggregate                Size      Size Lease Expiration  Status
-----
node1
    root1                0B        2GB -                lease-
not-required
    root2 (mirror)       0B        2GB -                lease-
not-required
    aggr1                20GB      20GB 6/21/2018 18:10:00 lease-
up-to-date
    aggr2 (mirror)       10GB      10GB 6/21/2018 20:00:00 lease-
up-to-date
node2
    root1 (mirror)       0B        2GB -                lease-
not-required
    root2                0B        2GB -                lease-
```

```

not-required
      aggr1 (mirror)          20GB      20GB 6/21/2018 18:10:00 lease-
up-to-date
      aggr2                  10GB      10GB 6/21/2018 20:00:00 lease-
up-to-date
node3
      root3                  0B        2GB -                      lease-
not-required
      root4 (mirror)         0B        2GB -                      lease-
not-required
      aggr3                  15GB      0B 6/21/2018 20:00:00
aggregate-deleted
      aggr4 (mirror)         15GB      15GB 6/21/2018 12:00:00 lease-
expired
      aggr5 (mirror)         15GB      15GB 6/21/2018 21:00:00 lease-
up-to-date
      aggr6                  15GB      15GB 6/21/2018 21:00:00 plex-
deleted
      aggr7                  15GB      14GB 6/21/2018 21:00:00
aggregate-license-size-decreased
      aggr8 (mirror)         0B        14GB -                      lease-
missing
node4
      root3 (mirror)         0B        2GB -                      lease-
not-required
      root4                  0B        2GB -                      lease-
not-required
      aggr3 (mirror)         15GB      0B 6/21/2018 20:00:00
aggregate-deleted
      aggr4                  15GB      15GB 6/21/2018 12:00:00 lease-
expired
      aggr5                  15GB      15GB 6/21/2018 21:00:00 lease-
up-to-date
      aggr6 (mirror)         15GB      0B 6/21/2018 21:00:00 plex-
deleted
      aggr7 (mirror)         15GB      14GB 6/21/2018 21:00:00
aggregate-license-size-decreased
      aggr8                  0B        14GB -                      lease-
missing

```

system license show-status

Display license status

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

Description

This command displays the status of all Data ONTAP licenses.

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.

[-status {not-compliant|eval|partially-installed|valid|not-installed|not-applicable|not-known}] - Current State

If you use this parameter, the command displays information only about licenses that match the given status.

[-license <Licensable Package>] - License

If you use this parameter, the command displays information only about licenses that match the given license.

[-scope {site|cluster|node|pool}] - License Scope

If you use this parameter, the command displays information only about licenses that match the given scope.

[-detailed-status <text>, ...] - Detailed Status

If you use this parameter, the command displays information only about licenses that match the given detailed-status.

Examples

The following example displays the license status of the cluster:

```

cluster1::> system license show-status
Status      License                Scope      Detailed Status
-----
partially-installed
      CIFS                node      License missing on: Node2-
Cluster1.
      SnapRestore         node      License missing on: Node2-
Cluster1.
valid
      FCP                 node      -
      FabricPool          cluster  The system is using 1TB, and can
use up to 25TB.
not-installed
      NFS                 -        -
      iSCSI               -        -
      SnapMirror           -        -
      FlexClone            -        -
      SnapVault            -        -
      SnapLock             -        -
      SnapManagerSuite     -        -
      SnapProtectApps      -        -
      V_StorageAttach      -        -
      Insight_Balance      -        -
      OCShift              -        -
      TPM                  -        -
      VE                   -        -
      DP_Optimized         -        -
not-applicable
      Cloud                -        -
      Select               -        -
20 entries were displayed.

```

system license show

Display licenses

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

Description

The `system license show` command displays the information about licenses in the system.

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.

[-serial-number <text>] - Serial Number

If you use this parameter, the command displays information only about the licenses that matches the serial number you specify.

[-package <Licensable Package>] - Package

If you use this parameter, the command displays information only about the specified package.

[-owner <text>] - Owner

If you use this parameter, the command displays information only about the packages that matches the owner name you specify.

[-expiration <MM/DD/YYYY HH:MM:SS>] - Expiration

If you use this parameter, the command displays information only about the licenses that have the expiration date you specify.

[-description <text>] - Description

If you use this parameter, the command displays information only about the licenses that matches the description you specify.

[-type {license|site|demo|subscr|capacity|capacity-per-term}] - Type

If you use this parameter, the command displays information only about the licenses that have the license type you specify.

[-legacy {yes|no}] - Legacy

If you use this parameter, the command displays information only about the licenses that matches the legacy field you specify.

[-customer-id <text>] - Customer ID

If you use this parameter, the command displays information only about the licenses that have the customer-id you specify.

Examples

The following example displays default information about all licensed packages in the cluster:

```

cluster1::> system license show
Serial Number: 1-80-123456
Owner: cluster1
Package          Type      Description          Expiration
-----
Base             site     Cluster Base License -
NFS              site     NFS License         -
iSCSI            site     iSCSI License       -

Serial Number: 1-81-00000000000000001122334455
Owner: node1
Package          Type      Description          Expiration
-----
NFS              license  NFS License         -
SnapRestore      license  SnapRestore License -
5 entries were displayed.

```

system license update-leases

Begin lease reconciliation

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

Description

The `system license update-leases` command attempts to update (that is, renew) any capacity pool leases that have expired.

Parameters

[-node {<nodename>|local}] - Nodes to Attempt Renewal

This optional parameter directs the system to update leases for only the specified nodes.

[-force {true|false}] - Force Renewal of Valid Leases

This optional parameter, if set with a value of "true", directs the system to update all leases for a node, not just those that have expired.

Examples

The following example updates all leases on a node:

```

cluster1::*> system license update-leases -node node1 -force true
Number of Leases Updated: 3
Number of Leases Not Updated: 0 (error), 0 (already up-to-date)

```

system license capacity show

(DEPRECATED)-Show license capacity status

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

Description



This command is deprecated and may be removed in a future release of Data ONTAP. Use the "[system license show-status](#)" command.

The `system license capacity show` command displays the information about the licenses in the system that are specifically related to storage capacity limits.

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.

[-serial-number <Node Serial Number>] - Serial Number

If you use this parameter, the command displays information only about the capacity-related licenses that matches the serial number you specify.

[-package <Licensable Package>] - Package

If you use this parameter, the command displays information only about the package you specify.

[-owner <text>] - Owner

If you use this parameter, the command displays information only about the capacity-related licenses that have the owner you specify.

[-max-capacity {<integer>[KB|MB|GB|TB|PB]}] - Maximum Capacity

If you use this parameter, the command displays information only about the capacity-related licenses that have the maximum amount of attached storage capacity you specify.

[-current-capacity {<integer>[KB|MB|GB|TB|PB]}] - Current Capacity

If you use this parameter, the command displays information only about the capacity-related licenses that apply to the node with the current attached capacity you specify.

[-expiration <MM/DD/YYYY HH:MM:SS>] - Expiration Date

If you use this parameter, the command displays information only about the capacity-related licenses that have the expiration date you specify.

[-reported-state {evaluation|warning|missing|enforcement|installed}] - Reported State

If you use this parameter, the command displays information only about the capacity-related licenses that have the reported state you specify.

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

If you use this parameter, the command displays information only about the capacity-related licenses that apply to the node you specify.

Examples

The following example displays information about all capacity-related licensed packages in the cluster, for a hypothetical cluster of four nodes:

Note that for some nodes below, the maximum capacity is displayed as "-" (meaning "unlimited"). This happens when there is no capacity license for the node - the node is operating with a limited-time temporary capacity license.

```
cluster1::> system license capacity show

Node:          node1
Serial Number: 1-81-00000000000001234567890123456
               Max  Current
Package        Capacity Capacity Expiration
-----
Select         2TB   15.81GB 4/11/2016 00:00:00
Node:          node2
Serial Number: 1-81-000000000000000000000123456788
               Max  Current
Package        Capacity Capacity Expiration
-----
Select         -    10.40TB 4/11/2016 00:00:00
Node:          node3
Serial Number: 1-81-000000000000000000000123456789
               Max  Current
Package        Capacity Capacity Expiration
-----
Select         -    10.40TB 4/11/2016 00:00:00
Node:          node4
Serial Number: 1-81-00000000000001234567890123456
               Max  Current
Package        Capacity Capacity Expiration
-----
Select         2TB   15.81GB 4/11/2016 00:00:00
```

Related Links

- [system license show-status](#)

system license entitlement-risk show

Display Cluster License Entitlement Risk

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

Description

This command displays information about license entitlement risk of the cluster for each license package. The command displays license package name, entitlement risk, corrective action to reduce the entitlement risk for each package, and the names and serial numbers for the nodes that do not have a node-locked license for a given package. If command is used with the "-detail" parameter, the output displays the names and serial numbers for all nodes in the cluster instead of only the nodes missing a node-locked license. It also displays whether each node has a license and if the features corresponding to the package are used in the past week.

License entitlement risk does not apply to base license. If a node has a site or a valid demo license for the given package, the entitlement risk will be shown as "medium" and the nodes missing a node-locked license will be displayed. The corrective action, if the cluster has a site license for the given package is, "Verify all controllers are entitled". If the entitlement risk is high, the corrective action is "Acquire node-locked license". For the low entitlement risk and if the cluster is unlicensed for a given package, the corrective action is "None". If the license entitlement risk cannot be computed because of infrastructure issues, the entitlement risk is shown as "unknown" and the corrective action is displayed as "Verify system health". For more information regarding license entitlement risk, see + <http://mysupport.netapp.com/licensing/ontapentitlementriskstatus>

Parameters

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

With this parameter, you can specify which fields should be displayed by the command. License package names and node serial numbers are always displayed.

| [-detail]

If you use this parameter, the command displays the license package name, entitlement risk, corrective action, all nodes' names, their serial numbers, whether a node-locked license is present and whether a given license package has been in use in the past week for each node in the cluster.

| [-instance] }

If this parameter is used, the command displays values for all fields for each license package and each node in the cluster individually.

[-package <Licensable Package>] - Package Name

If you use this parameter, the command displays information only for the specified license package.

[-serial-number <text>] - Node Serial Number

If you use this parameter, the command displays information only for the node with the specified serial number. The displayed entitlement risk and corrective action apply to the entire cluster.

[-node-name <text>] - Node Name

If you use this parameter, the command displays information only for the node with the specified name. The displayed entitlement risk and corrective action apply to the entire cluster.

[-risk {high|medium|low|unlicensed|unknown}] - Entitlement Risk

If you use this parameter, the command displays information only for the license packages that have the specified license entitlement risk.

[-action <text>] - Corrective Action

If you use this parameter, the command displays information only for the license packages which need the specified corrective action to reduce entitlement risk.

[-is-licensed {true|false}] - Is Node-Locked License Present

If you use this parameter, the command displays information only for the license packages for which at least one node in the cluster has a node-locked license. It also displays the nodes in the cluster which do not have a node-locked license.

[-in-use {true|false}] - Usage Status

If you use this parameter, the command displays information only for the license packages with corresponding features in use.

[-missing-serial-numbers <text>,...] - Serial Numbers Missing a Node-Locked License

If you use this parameter, the command displays the packages for which the node with the specified serial number does not have a node-locked license.

[-missing-node-names <text>,...] - Node Names Missing a Node-Locked License

If you use this parameter, the command displays all the packages for which the node with the specified name does not have a node-locked license.

[-action-code {acquire-license|adjust-capacity|verify-entitlement|verify-system-health|none}] - Corrective Action Code

If you use this parameter, the command displays information only for the license packages which need specified corrective action code to reduce entitlement risk. This parameter is same as the parameter "action".

Examples

The following example displays the information for license package NFS. NFS is unlicensed in the cluster and no action is necessary to reduce the entitlement risk. The nodes, cluster1-01 and cluster-02, are missing a node-locked license. The serial numbers for both nodes are also displayed.

```
cluster1::> system license entitlement-risk show
Package                Entitlement Risk Corrective Action
-----
NFS                    unlicensed        None
                        Nodes Without a Node-Locked License
                        -----
                        cluster1-01          1-81-00000000000000004073806282
                        cluster1-02          1-81-00000000000000004073806283
```

The following example displays the information for license package CIFS. The cluster has high entitlement risk for CIFS. The command displays serial numbers for all nodes in the cluster. Both nodes are missing a node-locked CIFS license. Node with serial number 1-81-00000000000000004073806282 has used CIFS feature in

the past week, and the node with serial number 1-81-0000000000000004073806283 has not used this feature in the past week.

```
cluster1::> system license entitlement-risk show -detail
Package                Entitlement Risk Corrective Action
-----
CIFS                    high                Acquire a node-locked license
                        Serial Numbers                Licensed Usage
                        -----
                        1-81-0000000000000004073806282 false      true
1-81-0000000000000004073806283 false      false
```

system license license-manager check

Display license manager status

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

Description

The `system license license-manager check` checks the connectivity status of a node to the License Manager that the node was configured to use. The status of a node might indicate that the License Manager is inaccessible. If so, the status message contains additional text in parentheses. The text options and descriptions are as follows:

- `license_expired` : The License Manager has a license, but it is expired.
- `network_error` : The node is unable to establish basic network connectivity.
- `no_valid_license` : The License Manager does not have a valid capacity pool license.

All other values indicate an internal error.

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)

This parameter directs the system to display results for the License Manager configured for the specified node.

[-status <text>] - Status (privilege: advanced)

This parameter directs the system to display results for the given status message.

Examples

The following examples check the status of the configured License Manager, before and after its license has expired:

```
cluster1:*> system license license-manager check -node node1
Node: node1
LM status: License Manager (1.2.3.4:5678) is accessible.

cluster1:*> system license license-manager check

Node          Status
-----
node1          License Manager (1.2.3.4:5678) is accessible.
node2          License Manager (1.2.3.4:5678) is accessible.
2 entries were displayed.
cluster1:*> system license license-manager check -node node1
Node: node1
LM status: License Manager (1.2.3.4:5678) is inaccessible
(license_expired).

cluster1:*> system license license-manager check

Node          Status
-----
node1          License Manager (1.2.3.4:5678) is inaccessible
(license_expired).
node2          License Manager (1.2.3.4:5678) is inaccessible
(license_expired).
2 entries were displayed.
```

system license license-manager modify

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

Description

The `system license license-manager modify` command modifies the configuration information for the License Manager the system is using.

Parameters

[`-host <text>`] - License Manager Host (privilege: advanced)

Sets the specified host, which can either be a fully qualified domain name (FQDN) or an IP address.

Examples

The following example modifies information about the License Manager configuration:

```
cluster1::*> system license license-manager modify -host  
myhost.mycompany.com
```

system license license-manager show

Display license manager information

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

Description

The `system license license-manager show` command displays the information about the current License Manager configuration.

Examples

The following example displays information about current License Manager configuration:

```
cluster1::*> system license license-manager show  
  
License Manager Host: 1.2.3.4
```

system license status show

(DEPRECATED)-Display license status

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

Description



This command is deprecated and may be removed in a future release of Data ONTAP. Use the `"system license show-status"` command.

This command displays the list of licensable packages in the system and their current licensing status.

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.

[-package <Licensable Package>] - Package Name

If you use this parameter, the command displays information only about the specified package.

[-method {none|license|site|demo|subscr|capacity}] - Licensed Method

If you use this parameter, the command displays information only about the packages with the specified licensed method.

[-expiration <MM/DD/YYYY HH:MM:SS>] - Expiration Date

If you use this parameter, the command displays information only about the licenses that have the expiration date you specify.

[-description <text>] - Description

If you use this parameter, the command displays information only about the licenses that match the description you specify.

[-status-details <text>] - Additional Information About Status

This option displays additional information regarding the cluster-level license status for license methods.

Examples

The following example displays the license status of the cluster:

```
cluster1::> system license status show
```

Package	Licensed Method	Expiration	Status Details
Base	site	-	-
NFS	site	-	-
CIFS	demo	12/7/2015 00:00:00	Demo expires on
given date			
iSCSI	none	-	-
FCP	none	-	-
SnapRestore	none	-	-
SnapMirror	none	-	-
FlexClone	none	-	-
SnapVault	none	-	-
SnapLock	none	-	-
SnapManagerSuite	none	-	-
SnapProtectApps	none	-	-
V_StorageAttach	none	-	-
SnapLock_Enterprise			
	none	-	-
Insight_Balance	none	-	-
OCSHift	none	-	-
Cloud	subscr	12/15/2015 00:00:00	Subscription
expires on given date			

17 entries were displayed.

Related Links

- [system license show-status](#)

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