system license commands

ONTAP 9.7 commands

NetApp
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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 AAAAAAAAAAAAAAAAAAAAAAAAAAAA and BBBBBBBBBBBBBBBBBBBBBBBBBBBB to the cluster

```
cluster1::> system license add -license-code AAAAAAAAAAAAAAAAAAAAAAAAAAAA,
BBBBBBBBBBBBBBBBBBBBBBBBBBBB
```

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: 1-81-0000000000000004067154999
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 1-81-000000000000000000000123456 from the cluster:

```
cluster1::> system license delete -serial-number 1-81-
000000000000000000000123456 -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: 1-81-000000000000001122334455
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: 1-81-0000000000001234567890123456
                             Max   Current
Package                   Capacity Capacity Expiration
----------------------- -------- -------- -------------------
Select                        2TB  15.81GB 4/11/2016 00:00:00
Node:          node2
Serial Number: 1-81-0000000000000000000123456788
                             Max   Current
Package                   Capacity Capacity Expiration
----------------------- -------- -------- -------------------
Select                         -   10.40TB 4/11/2016 00:00:00
Node:          node3
Serial Number: 1-81-0000000000000000000123456789
                             Max   Current
Package                   Capacity Capacity Expiration
----------------------- -------- -------- -------------------
Select                         -   10.40TB 4/11/2016 00:00:00
Node:          node4
Serial Number: 1-81-0000000000001234567890123456
                             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                     1-81-000000000000000004073806282
         cluster1-02                     1-81-000000000000000004073806283
```

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 1-81-000000000000000004073806282 has used CIFS feature in

the past week, and the node with serial number 1-81-000000000000004073806283 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
                                ---------------------------- -------- -----
                                1-81-000000000000004073806282 false    true
1-81-000000000000004073806283 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