system license commands
ONTAP 9.13.1 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.

- **[-use-license-file {true|false}]** - Use License File (privilege: advanced)
  
  If this parameter is set to true, licenses from the local node `/mroot/etc/lic_file` license file will be installed if the file exists at this location.

**Examples**

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

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

The following example installs the licenses from the local node "/mroot/etc/lic_file"

```
cluster1::> system license add -use-license-file true
```

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:
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 1-81-0000000000000000000123456 from the cluster:

    cluster1::> system license delete -serial-number 1-81-0000000000000000000123456 -package CIFS

The following example deletes from the cluster all of the licenses under the installed-license Core Bundle for serial number 123456789:

    cluster1::> system license delete { -serial-number 123456789 -installed-license "Core Bundle" }

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
```
<table>
<thead>
<tr>
<th>Node</th>
<th>Aggr (mirror)</th>
<th>Size</th>
<th>Expiry</th>
<th>Lease Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>node2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>root1 (mirror)</td>
<td>0B 2GB -</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>root2 (mirror)</td>
<td>0B 2GB -</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>aggr1 (mirror)</td>
<td>20GB</td>
<td>20GB 6/21/2018 18:10:00</td>
<td>lease-up-to-date</td>
<td></td>
</tr>
<tr>
<td>aggr2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>up-to-date</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>node3</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>root3 (mirror)</td>
<td>0B 2GB -</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>root4 (mirror)</td>
<td>0B 2GB -</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>aggr3</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>aggregate-deleted</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>aggr4 (mirror)</td>
<td>15GB</td>
<td>15GB 6/21/2018 12:00:00</td>
<td>lease-expired</td>
<td></td>
</tr>
<tr>
<td>aggr5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>up-to-date</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>aggr6</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>deleted</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>aggr7</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>aggregate-license-size-decreased</td>
<td>15GB</td>
<td>14GB 6/21/2018 21:00:00</td>
<td>aggregate-license-size-decreased</td>
<td></td>
</tr>
<tr>
<td>aggr8</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>missing</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>node4</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>root3 (mirror)</td>
<td>0B 2GB -</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>root4 (mirror)</td>
<td>0B 2GB -</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>aggr3 (mirror)</td>
<td>15GB</td>
<td>0B 6/21/2018 20:00:00</td>
<td>aggregate-deleted</td>
<td></td>
</tr>
<tr>
<td>aggr4</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>expired</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>aggr5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>up-to-date</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>aggr6 (mirror)</td>
<td>15GB</td>
<td>0B 6/21/2018 21:00:00</td>
<td>aggregate-license-size-decreased</td>
<td></td>
</tr>
<tr>
<td>aggr7 (mirror)</td>
<td>15GB</td>
<td>14GB 6/21/2018 21:00:00</td>
<td>aggregate-license-size-decreased</td>
<td></td>
</tr>
<tr>
<td>aggr8</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>missing</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
system license show-serial-numbers

Display History of Serial Numbers

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

Description

This command displays the history of changes to the support and node serial numbers. The node serial number and the support serial number of an ONTAP system are generally the same and do not change over time. However, when capacity pools licensing is used, the support serial number is that of the capacity pool license serial number and the node serial number is generated by the license manager. Also, when a cluster is upgraded or converted from capacity tiers licensing to capacity pools licensing, its support serial numbers as well as its node serial numbers change.

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.

{-seqnum <Sequence Number>} - Sequence number

Event sequence number

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

Selects the node names that match this parameter value.

{-date <MM/DD/YYYY HH:MM:SS>} - Date

Selects the dates of serial number changes that match this parameter value.

{-reason <text>} - Reason for change

Reasons for serial number changes.

{-support-serial-number <text>} - Support Serial Number

Selects the support serial numbers that match this parameter value.

{-node-serial-number <text>} - Node Serial Number

Selects the node serial number that match this parameter value.

Examples

The following example displays the serial number change history of a four node capacity pools cluster. Its two HA pairs were originally assigned to capacity pools 390000101 and 390000102, and then both were reassigned to another capacity pool 390000103:
The following example displays the history of a four node cluster converted from capacity tiers licensing to capacity pools licensing:

```plaintext
cluster1::> system license show-serial-numbers

Change Date: 06/06/2019
Reason: Reassignments of capacity pools

<table>
<thead>
<tr>
<th>Node</th>
<th>Support Serial</th>
<th>Node Serial</th>
</tr>
</thead>
<tbody>
<tr>
<td>node1</td>
<td>390000103</td>
<td>99939000010100000001</td>
</tr>
<tr>
<td>node2</td>
<td>390000103</td>
<td>99939000010100000002</td>
</tr>
<tr>
<td>node3</td>
<td>390000103</td>
<td>99939000010200000003</td>
</tr>
<tr>
<td>node4</td>
<td>390000103</td>
<td>99939000010200000004</td>
</tr>
</tbody>
</table>

Change Date: 03/01/2019
Reason: Initial installation

<table>
<thead>
<tr>
<th>Node</th>
<th>Support Serial</th>
<th>Node Serial</th>
</tr>
</thead>
<tbody>
<tr>
<td>node1</td>
<td>390000101</td>
<td>99939000010100000001</td>
</tr>
<tr>
<td>node2</td>
<td>390000101</td>
<td>99939000010100000002</td>
</tr>
<tr>
<td>node3</td>
<td>390000102</td>
<td>99939000010200000003</td>
</tr>
<tr>
<td>node4</td>
<td>390000102</td>
<td>99939000010200000004</td>
</tr>
</tbody>
</table>
```

The following example displays the history of an evaluation cluster that was upgraded to capacity pools licensing:

```plaintext
cluster1::> system license show-serial-numbers

Change Date: 06/06/2019
Reason: Conversions from capacity tiers to pools

<table>
<thead>
<tr>
<th>Node</th>
<th>Support Serial</th>
<th>Node Serial</th>
</tr>
</thead>
<tbody>
<tr>
<td>node1</td>
<td>390000103</td>
<td>99939000010300000011</td>
</tr>
<tr>
<td>node2</td>
<td>390000103</td>
<td>99939000010300000012</td>
</tr>
<tr>
<td>node3</td>
<td>390000103</td>
<td>99939000010300000013</td>
</tr>
<tr>
<td>node4</td>
<td>390000103</td>
<td>99939000010300000014</td>
</tr>
</tbody>
</table>

Change Date: 03/01/2019
Reason: Initial installation

<table>
<thead>
<tr>
<th>Node</th>
<th>Support Serial</th>
<th>Node Serial</th>
</tr>
</thead>
<tbody>
<tr>
<td>node1</td>
<td>310000101</td>
<td>310000101</td>
</tr>
<tr>
<td>node2</td>
<td>310000102</td>
<td>310000102</td>
</tr>
<tr>
<td>node3</td>
<td>310000103</td>
<td>310000103</td>
</tr>
<tr>
<td>node4</td>
<td>310000104</td>
<td>310000104</td>
</tr>
</tbody>
</table>
```

The following example displays the history of an evaluation cluster that was upgraded to capacity pools licensing:
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-
                      SnapRestore         node      License missing on: Node2-
Cluster1.
                      FabricPool           cluster   The system is using 1TB, and can
                      FCP                  node      -
                      use up to 25TB.
valid
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|enabled}] - Type
  If you use this parameter, the command displays information only about the licenses that have the license type 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.

[-installed-license <text>] - Installed License Name
  If you use this parameter, the command displays information only about the licenses that match the installed license you specify.
[-host-id <text>] - Host Id
If you use this parameter, the command displays information only about the license that have the host id you specify.

[-capacity {<integer>[KB|MB|GB|TB|PB]}] - License Capacity
If you use this parameter, the command displays information only about the licenses that match the capacity you specify.

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

```
cluster1::> system license show

Serial Number: 1-81-000000000000000112233455
Owner: node2
Installed License: Legacy Key
Capacity: -

Package       Type     Description           Expiration
-------------- -------- --------------------- -------------------
NFS           license  NFS License           -
CIFS          license  CIFS License          -
iSCSI         license  iSCSI License         -
SnapRestore   license  SnapRestore License   -
FlexClone     license  FlexClone License     -
S3            license  S3 License            -

Serial Number: 123456789
Owner: node1
Installed License: Core Bundle
Capacity: 10TB

Package       Type     Description           Expiration
-------------- -------- --------------------- -------------------
NFS           capacity NFS License           -
CIFS          capacity CIFS License          -
iSCSI         capacity iSCSI License         -
SnapRestore   capacity SnapRestore License   -
FlexClone     capacity FlexClone License     -
S3            capacity S3 License            -

12 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:

```bash
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.
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-copy-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 cluster1-02, 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 1-81-0000000000000004073806282
cluster1-02 1-81-0000000000000004073806283
```

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 1-81-0000000000000004073806282 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:
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:
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|enabled}] - 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

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

17 entries were displayed.

**Related Links**

- system license show-status