

Put a Node into Maintenance Mode



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Applies to: Hammerspace 5.3 and later.

You may need to take a single node offline to upgrade hardware, or to do maintenance on a virtual machine host. The steps differ depending on whether the node is a DSX node, the standby Anvil, or the active Anvil.



- Expect a brief interruption while services or virtual IP addresses fail over. Most failovers go unnoticed by clients, but do this during a quiet period.
- Without redundant Anvil nodes, taking the Anvil offline makes the cluster unavailable.
- A redundant Anvil coming back online has to catch its metadata database up from the active one. Wait at least 30 minutes after it returns before taking the active Anvil offline.
- Contact Hammerspace Support if you have questions about taking nodes offline.

1. Take a DSX Node or the Standby Anvil Offline

1. Connect to the cluster over SSH with an administrative account.
2. List the nodes.

Command:

```
node-list
```

3. Put the node into maintenance mode.

Command:

```
node-mode-change --name jp-ny-anvil-1.asgard.local --mode MAINTENANCE
```

```
Name: jp-ny-anvil-1.asgard.local
Node state: MANAGED
Node mode: MAINTENANCE
Management IP: 10.200.10.65/24
SW version: 5.0.1-390
```

The GUI also shows the node in maintenance mode, and the cluster as degraded.

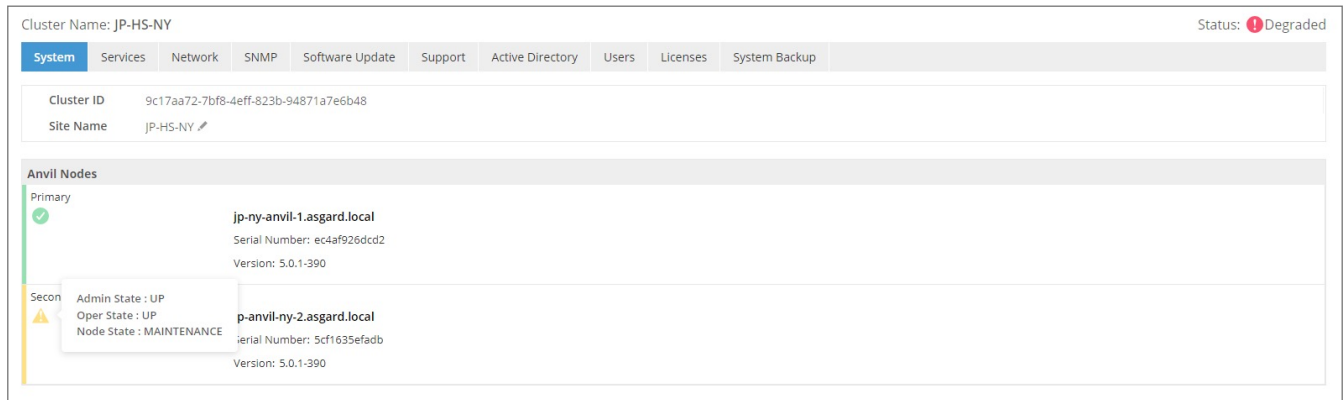


Figure 1. The node in maintenance mode as shown in the GUI

4. Power the node off.

Command:

```
node-mode-change --name jp-ny-anvil-1.asgard.local --mode POWEROFF
```

You can now do the maintenance.

2. Take the Active Anvil Offline

Put the active Anvil into maintenance mode and let the standby take over first.

The simplest sign that the failover has begun is your SSH session dropping — the `admin` account can only sign in to the management IP address of the current primary Anvil. Reconnect to the cluster management IP address and you are redirected to the new primary. From there you can shut down what is now the secondary.

1. Put the node into maintenance mode.

Command:

```
node-mode-change --name jp-ny-anvil-2.asgard.local --mode MAINTENANCE
```

2. Confirm it.

Command:

```
node-list
```

3. Power it off.

Command:

```
node-mode-change --name jp-ny-anvil-2.asgard.local --mode POWEROFF
```

3. Bring a Node Back Online

Power the node up, then confirm it has rejoined.

On a virtual machine, watch the console until the online splash screen appears. Physical nodes show a similar screen.

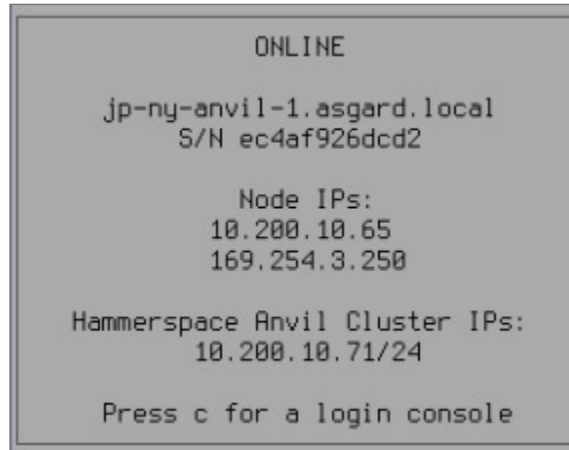


Figure 2. The Anvil online splash screen

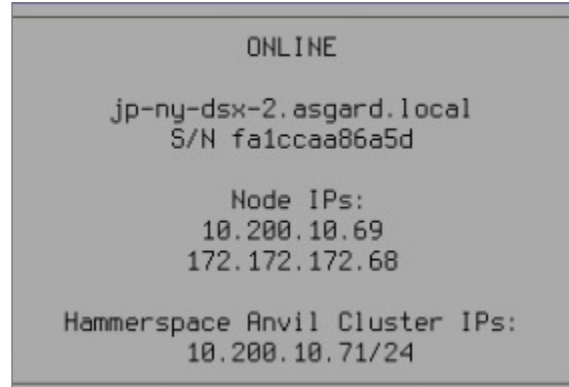


Figure 3. The DSX online splash screen

In the GUI, open **Administrator** > **System** and check that the node's admin state and operational state are **UP**, and its node state is **ONLINE**.

The screenshot shows the 'System' page for a cluster named 'JP-HS-NY'. The status is 'High Availability'. The page lists two Anvil nodes:

Node Type	Node Name	Serial Number	Version
Primary	jp-ny-anvil-1.asgard.local	ec4af926dcd2	5.0.1-390
Secondary	jp-anvil-ny-2.asgard.local	5cf1635efadb	5.0.1-390

A tooltip for the secondary node shows its status: Admin State: UP, Oper State: UP, Node State: ONLINE.

Figure 4. Node status on the System page

You can confirm the same thing from the CLI.

Command:

```
cluster-view
```

While a node is down, the cluster reports as degraded:

```
Name: JP-HS-NY
State: Degraded
Management IPs: [10.200.10.71/24]
```

Once it is back:

```
Name: JP-HS-NY
State: High Availability
Management IPs: [10.200.10.71/24]
```



Run any CLI command with `--help` for its full syntax.