Test scenario and troubleshooting of Open-E DSS V7 (up60) cluster shutdown and start up

Scenario:

Step 1.

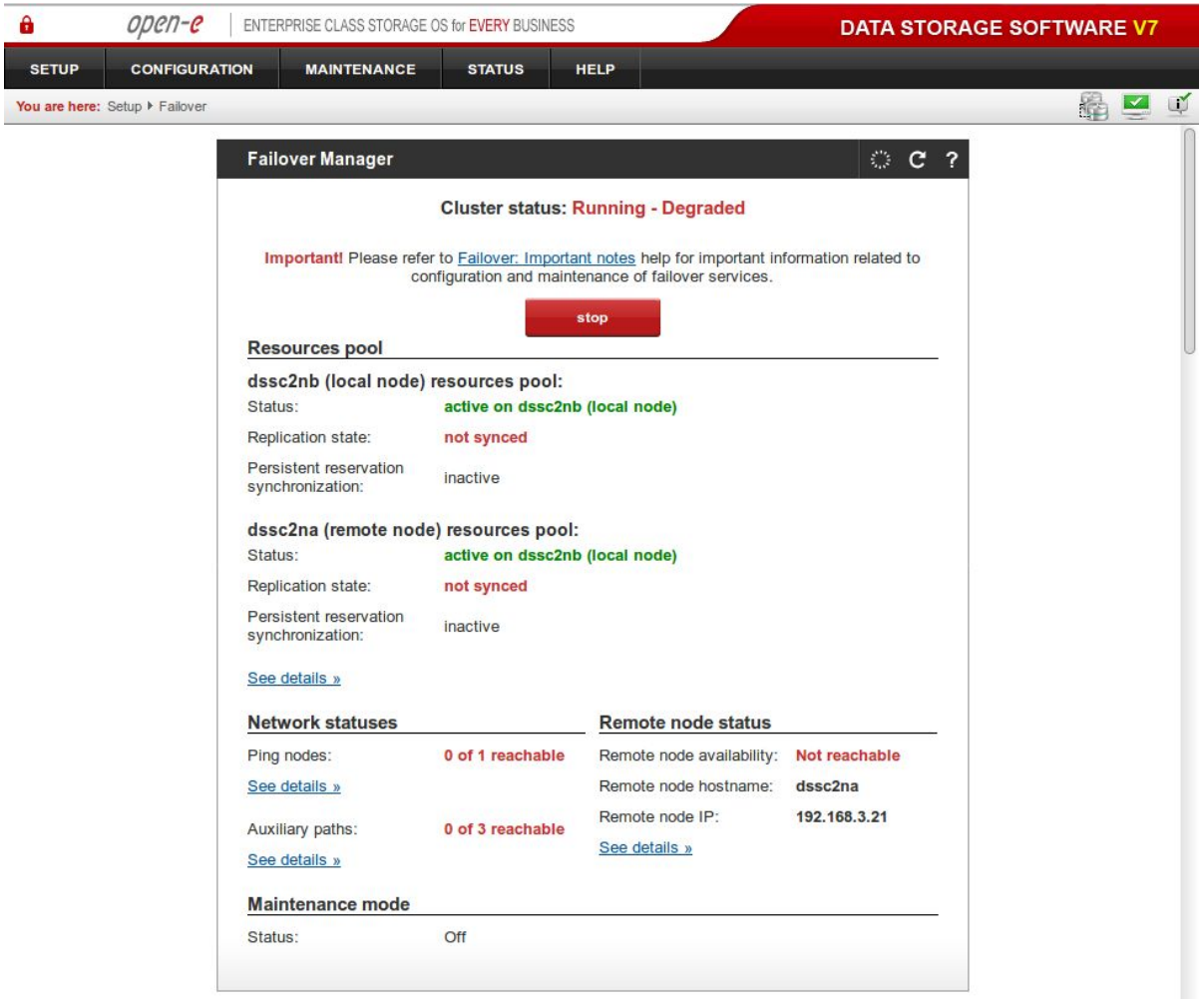
Ensure both *Replication state* fields of *Resources pool* are **synced** (in Setup -> Failover -> Failover Manager). Otherwise, wait until synchronization is completed.

Move all resources to one node (from Node A to Node B) using **move to remote node** button in the Setup -> Failover -> Resources Pool Manager.

Step 2.

Shutdown the node without resources (Node A) from the WebGUI: Maintenance -> Shutdown -> System Shutdown.

Node B Failover status after shutdown of Node A.



Step 3.

Shutdown Node B from the WebGUI: Maintenance -> Shutdown -> System Shutdown.

Step 4.

Power on Node B.

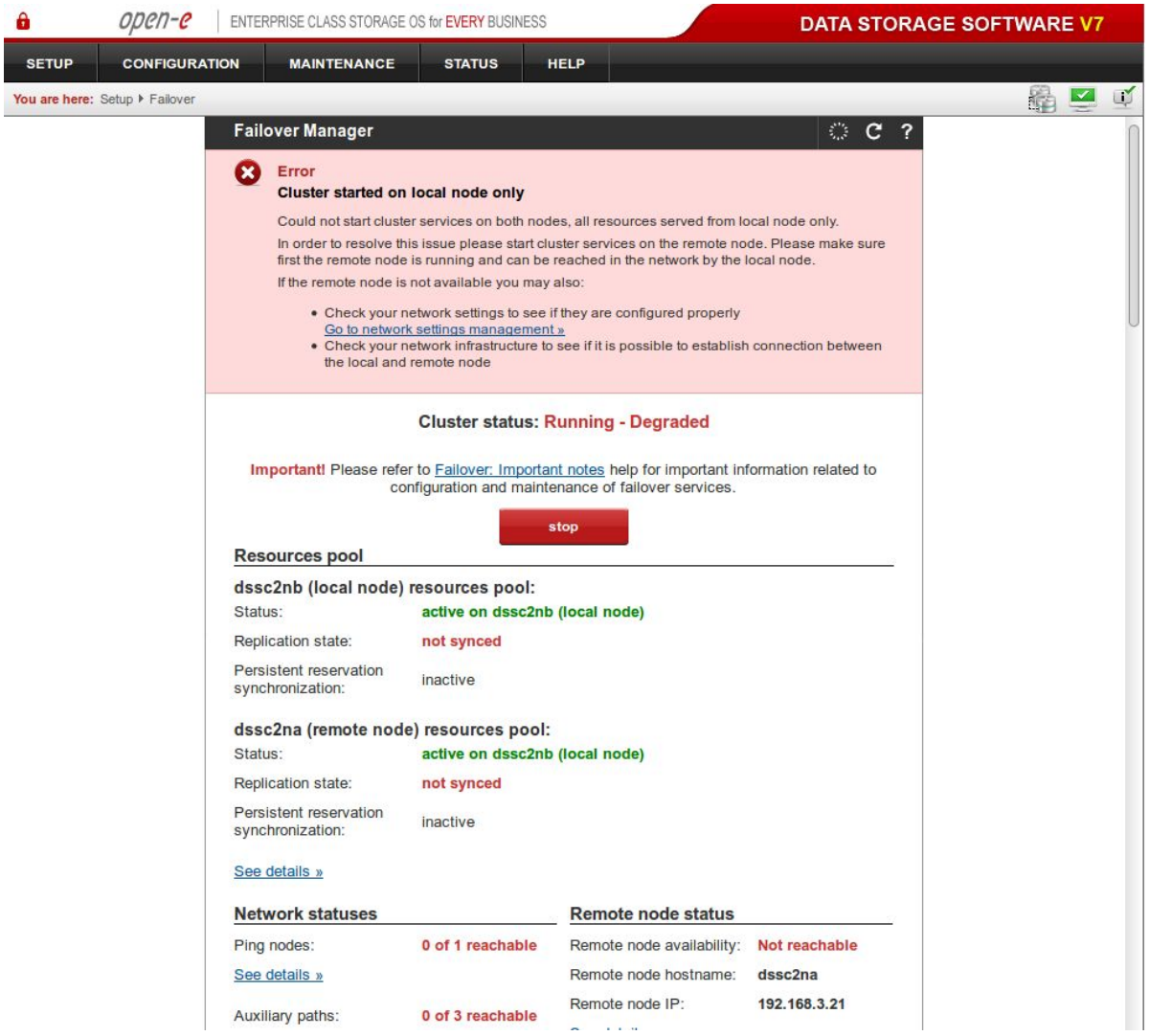
Step 5.

Start Failover on Node B in local start mode: Setup -> Failover -> Failover Manager -> **Start** button.

Note: Do not change Volume Replication Mode!
Note: Do not start any Volume Replication tasks!.

Wait until *Resources pool* status will be active in the Failover Manager.

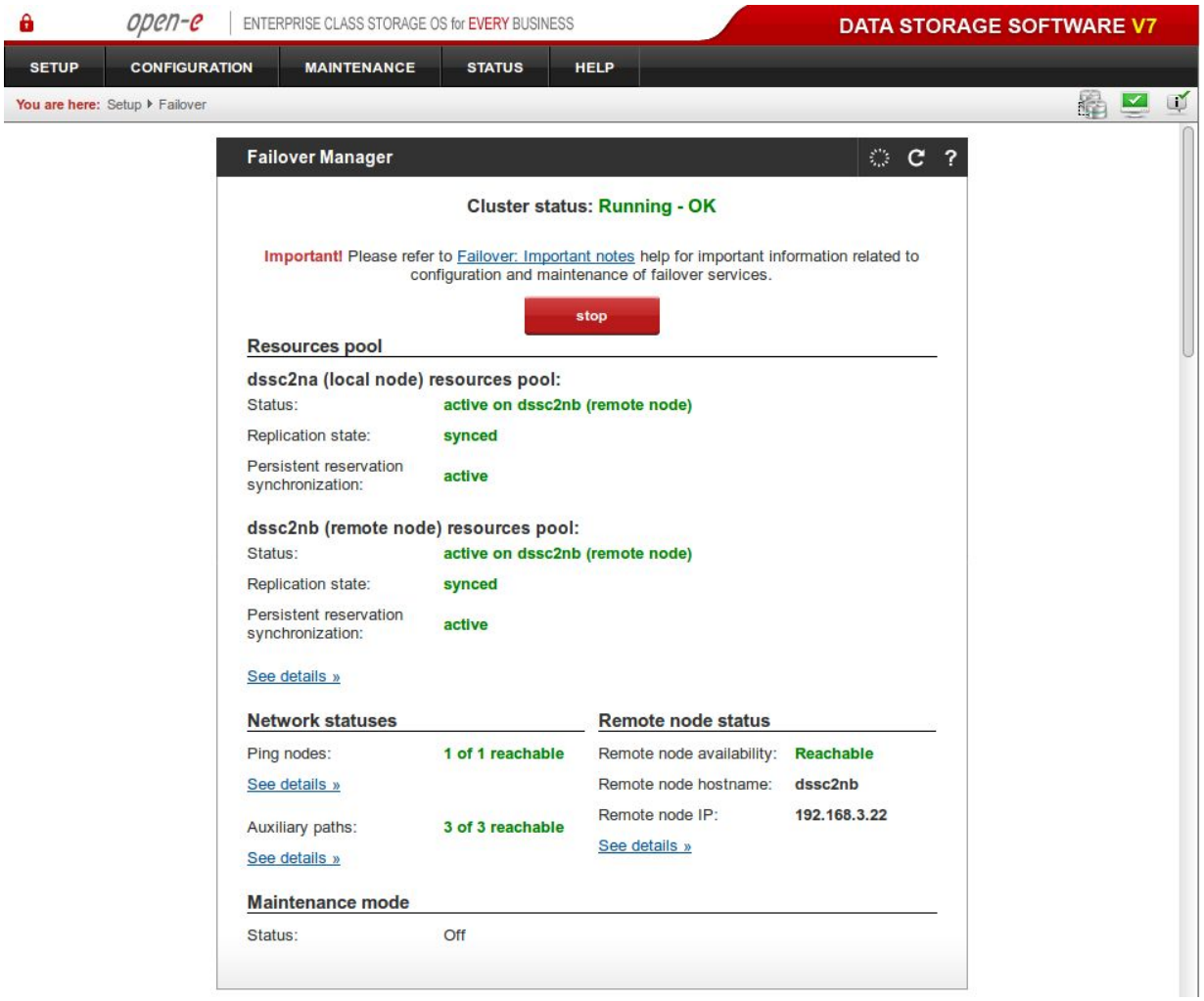
Node B Failover status when running in local start mode.



Step 6.

Power on Node A. It should connect and join Failover automatically.

Node A Failover status after joining the cluster.



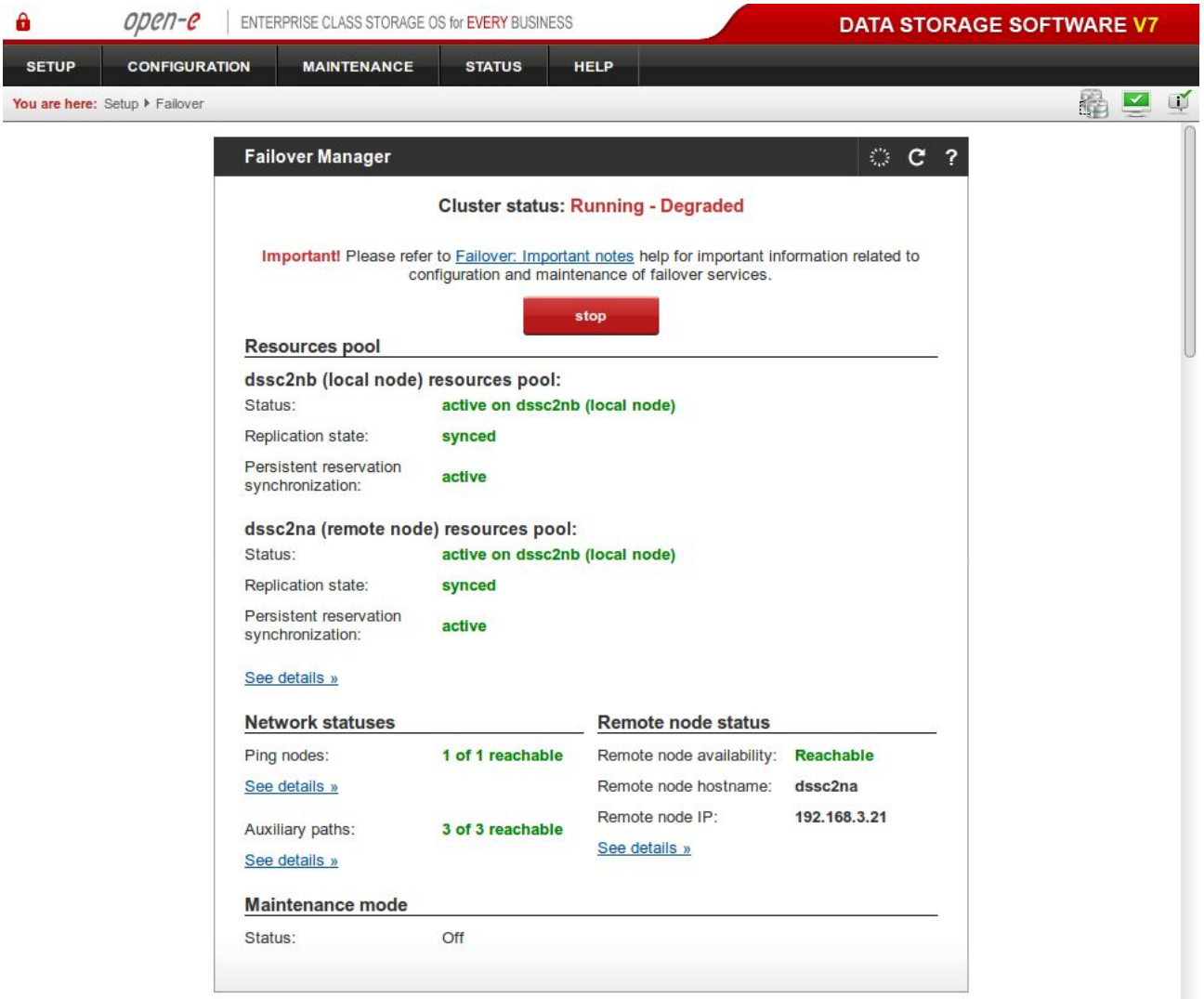
Step 7.

Move resources to the original state (from Node B to Node A) using on Node B: **move to remote node** button in the Setup -> Failover -> Resources Pool Manager.

Troubleshooting:

Case 1.

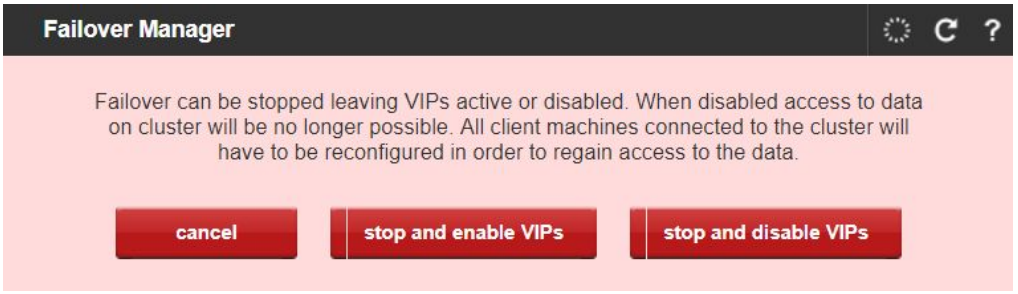
In Step 6 after Node A join, when on both nodes, *Cluster Status* will show up as **Running – Degraded** and all *Resources pool* fields show **active** and **synced**.



Solution:

1. Continue with Step 7 (Move resources to their original configuration).
2. On console tools, start Maintenance Mode by selecting **Ctrl+Alt+X -> Cluster Maintenance Mode**

3. On GUI, Stop the cluster in Setup -> Failover -> Failover Manager. On the confirmation prompt, you must choose **stop and enable VIPs** button



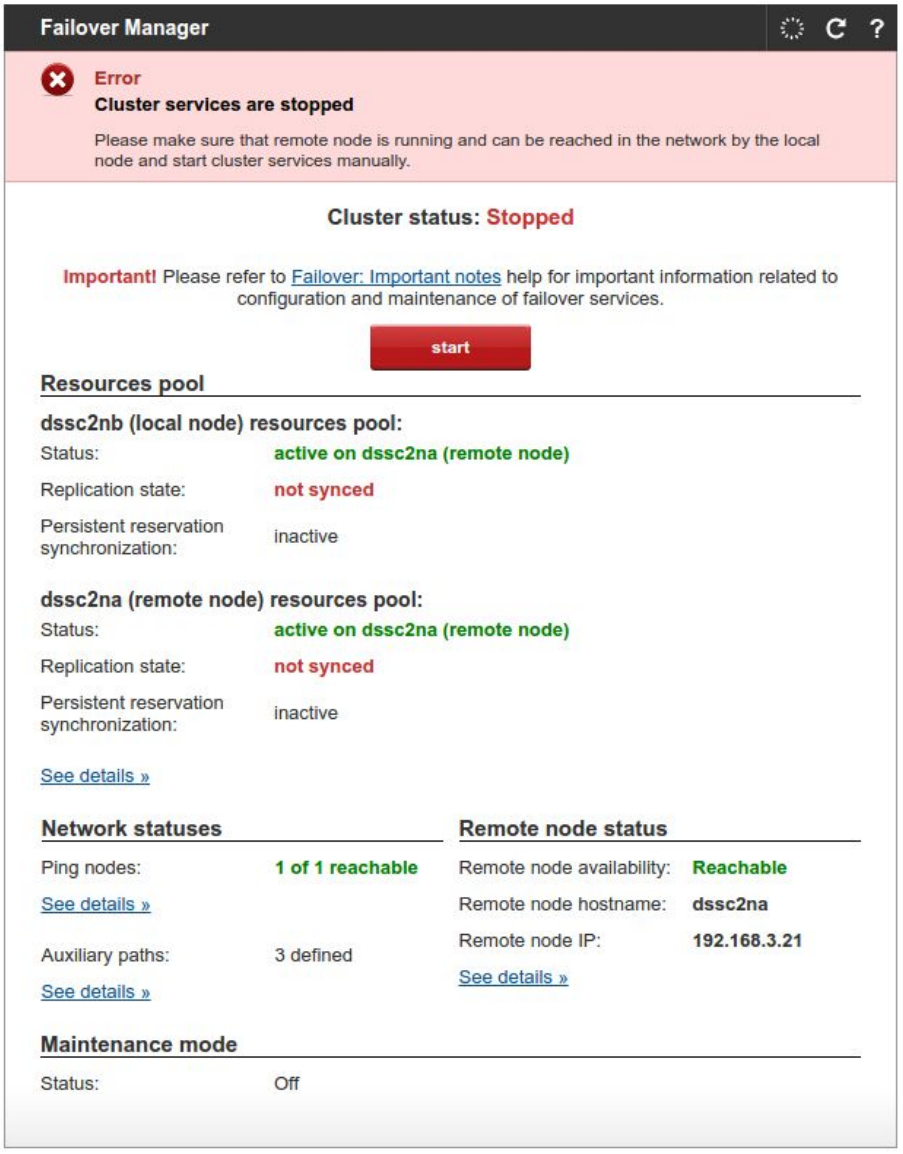
4. Start the cluster again.

NOTE: The maintenance mode can be enabled in production permanently.

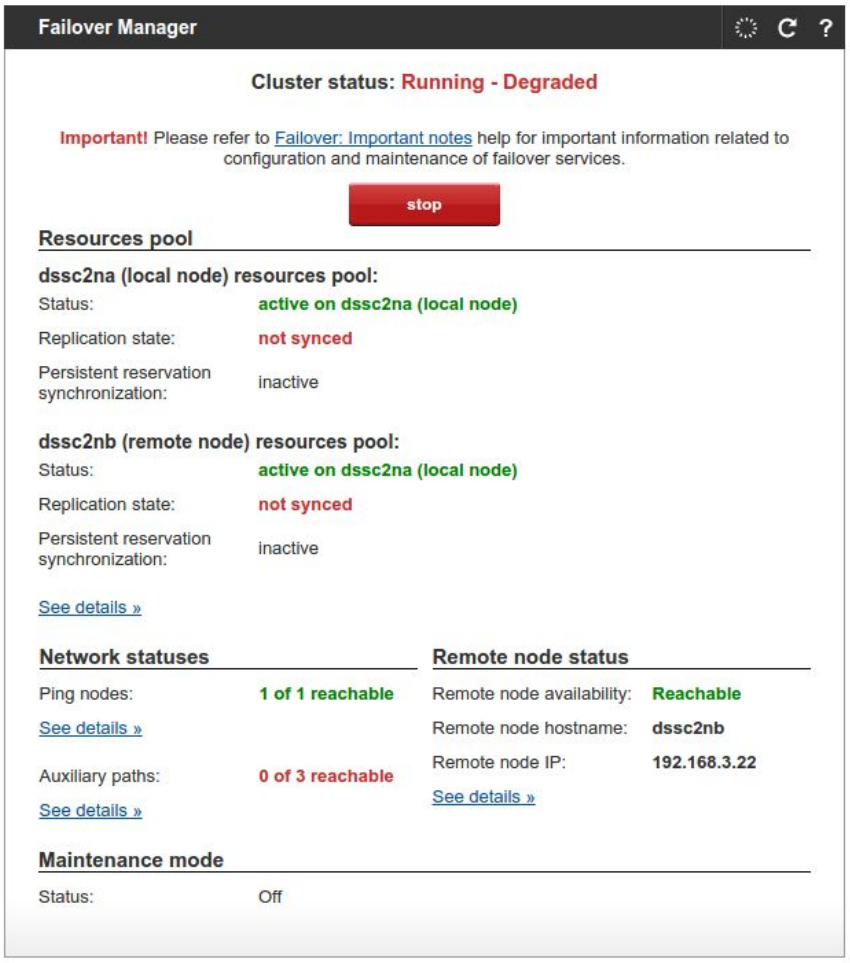
Case 2.

In Step 6 after Node A join, when on Node A *Cluster Status* will show up as **Stopped** (and on Node B as **Running – Degraded**) and in *Resources pool, Replication state* shows **not synced** (on at least one resource pool). Also, Event Viewer on Node A shows "**Failed to join the cluster, incorrect configuration (error code: 13).**" error message.

Node A (joining node):

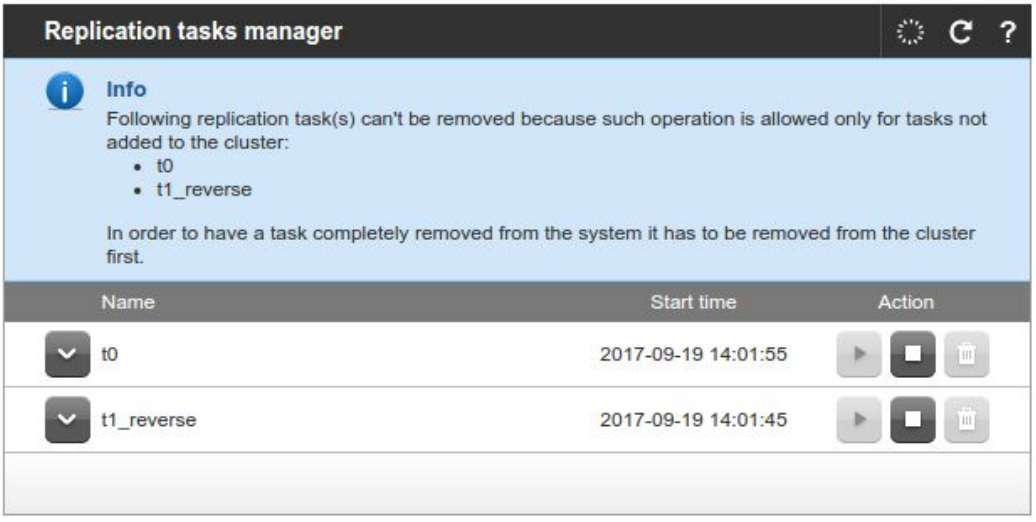


Node B (active node):



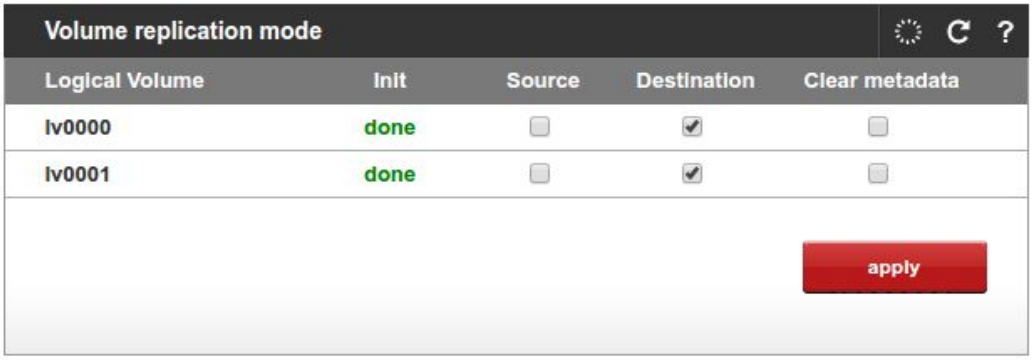
Solution:

1. Please stop all running replication tasks on Node B (Configuration -> Volume manager -> Volume replication)

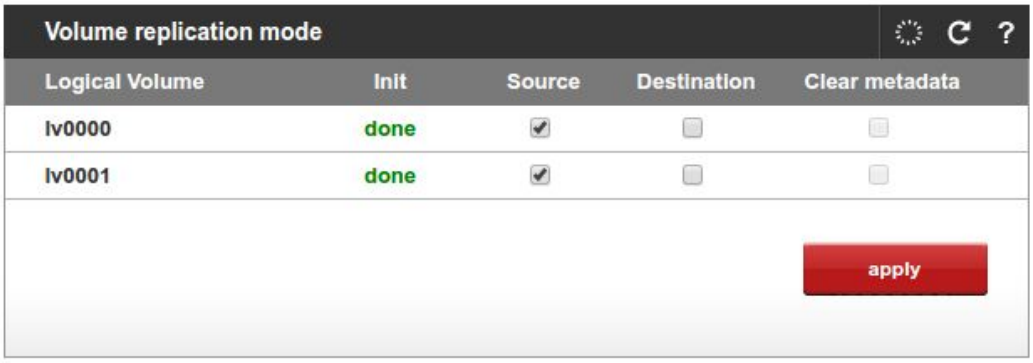


2. Ensure all volumes (which are used in cluster) on Node A are marked as Destination (Configuration -> Volume manager -> Volume replication) and all volumes on Node B are marked as Source. If not, make appropriate changes.

Node A (joining node):



Node B (active node):



3. Start all replication tasks on Node B (Configuration -> Volume manager -> Volume replication)
4. Ensure *Replication state* for both pools in Failover Manager (Setup -> Failover -> Failover Manager) on any node shows **syncing in progress** or **synced**.
5. Start cluster on Node A (joining node) in Failover Manager (Setup -> Failover -> Failover Manager)

Possible cause of problem:

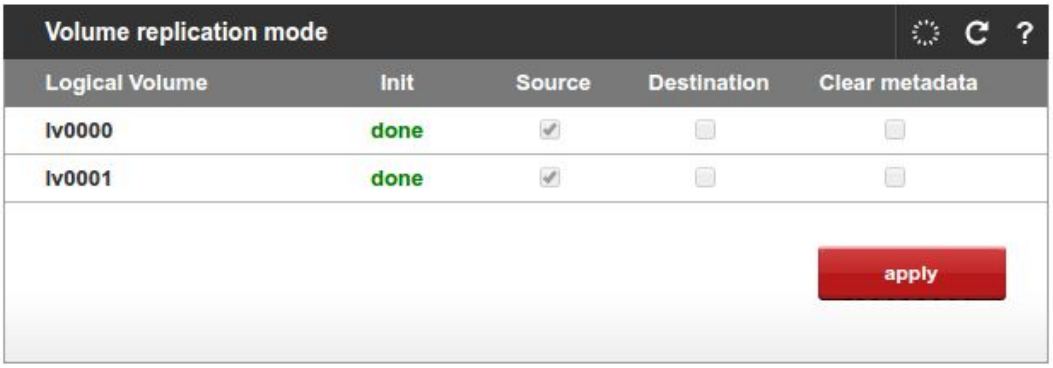
- during Node A joining (Step 6), connection errors on replication level or network issues occurred,
- user has changed volume replication mode on node B while node A is off (after Step 2) - eg. change of one volume from Source to Destination and back to Source

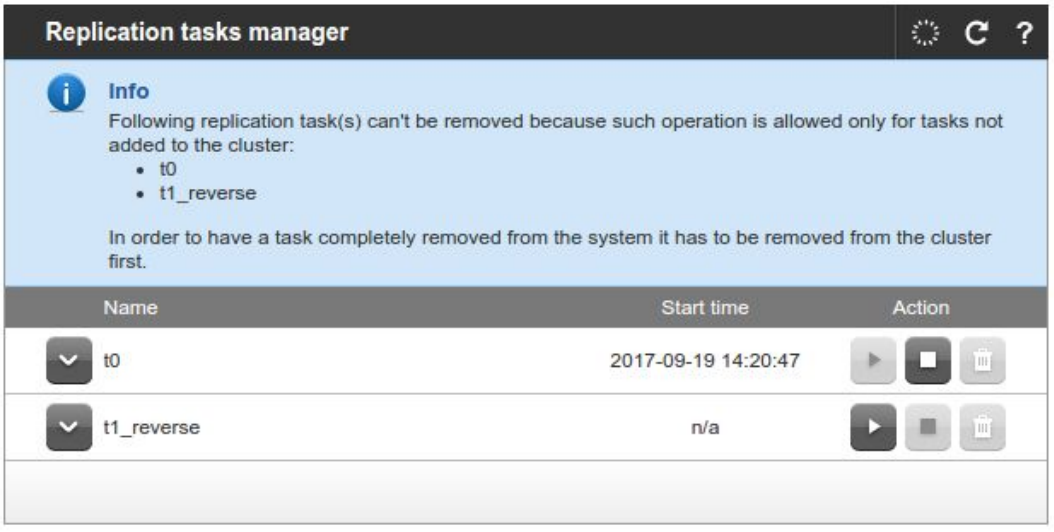
Case3.

In Volume replication mode (Configuration -> Volume manager), if Source / Destination check boxes are "grey out" and it is not possible to change destination to source. (See the screenshot below.)

Workaround is to click on task-start button and refresh browser (F5)

Note: This is an old known bug. This bug was fixed and should NOT happen in up60





General case.

In some cases, your web browser may cache information from the GUI and show unexpected information. In such case you can refresh the browser using ctrl + F5 keys or refer to your web browser manual.