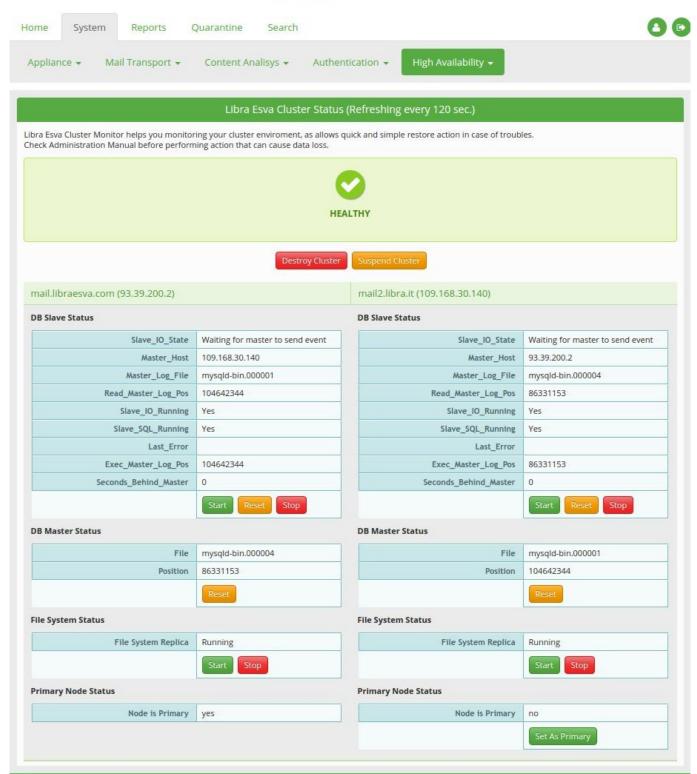
# **Cluster Monitor**

The Cluster Monitoring Tool, is accessible by selecting menù  $System->Cluster\ Monitoring\ Tool$ , or by clicking on the cluster status icon on the Dashboard.

The screen gives a comprehensive technical overview of cluster services; you can access the monitoring toll on either node as it makes no difference.





This tool can perform some actions on the cluster setup:

- o Suspend Cluster
- Destroy Cluster

## Suspend Cluster

The **Suspend Cluster** action is activated by clicking on the same button at the top of the page. When a cluster is suspended all cluster and mail activities are paused, on both nodes.

This is a required step to perform a System Upgrade.

Once suspended you can Resume Cluster activities and mail delivery by pressing button **Resume Cluster**.

## **Destroy Cluster**

This function, as it clearly states, dismounts the cluster, leaving the two nodes alone with their configurations in place.

The Destroy Cluster action is activated by clicking on the same button at the top of the page.

You may need to destroy a cluster for two principal reasons:

- A node failed and you are not able to recover it.
- You do not want any more a clustered installation, and want to leave two working standalone nodes.

When a cluster fails and one node is unrecoverable the correct procedure is to destroy existing cluster, leaving the last node active as standalone. Next deploy a new Libraesva ESG installation and re-create a new cluster.

If you are destroying a fully working cluster, no data will be lost. This operation will simply un-cluster the two nodes leaving them operative as standalone nodes with their configuration in place.

### Repair Cluster

This is the most complex case. When a cluster fails, you can try some actions to recover it before giving up and destroying it.

When a cluster fails, the Cluster Monitoring Tool will show in RED which service has a

problem, so you can focus on it.

Let's explain the interface and commands.

The screen is divided in two columns: on the left you have the node you are connected to, on the right the other one. The cluster works, in simple words, with two main components:

- Database replicas
- File System replicas

Database has a circular replication running, that means each node is master and slave of the other at the same time.

We have three sections for each column, namely three services for each node running:

- Database Master Role
- Database Slave Role
- Filesystem Replication Role

We can recover from three general problems, related to the above services.

Database Roles should be read crossed, as Slave Role of each node works in pair with its corresponding Master Role on other node.

So If we have a problem with the left slave, we should consider looking at both left column slave section and right column master section, and vice versa.

### **Database Master Role Actions**



Reset

This function will reset the database master. All pending synchronization log will be deleted. This function will also reset the other node slave service. Use this if you have problems with slave service that reset slave wont fix.

## **Database Slave Role Actions**



Start	Starts the Database Slave Role
Stop	Stops the Database Slave Role
Reset	Resets the Slave Role. Makes the slave forget its replication position in the master's binary log. This statement is meant to be used for a clean start.

#### File System Replication Actions



**\*TIP:** in case of a database cluster error, the *Slave Slave\_IO\_State* and *Last\_Error* give more informations about the crash reason.

The cluster is active-active and both nodes are equivalent thought only one will process the daily digest report to users, to avoid duplicate notifications.

That said it's easier to understand the meaning of the latest action **Set As Primary** in

#### section Primary Node Status.

The primary role is referred and only limited to the digest report scheduling and delivery.

You can change node role, or take role ownership in case primary node fails, simply clicking on this button.

**\*IMPORTANT NOTE:** cluster functionalities will not affect email delivery in ANY case. That means a broken cluster will deliver mail regularly. Also all reset functions above will NOT cause ANY email loss, never.