

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.

Libra Esva Cluster Status (Refreshing every 120 sec.)

Libra Esva Cluster Monitor helps you monitoring your cluster environment, as allows quick and simple restore action in case of troubles. Check Administration Manual before performing action that can cause data loss.



HEALTHY

Destroy Cluster

Suspend Cluster

mail.libraesva.com (93.39.200.2)

mail2.libra.it (109.168.30.140)

DB Slave Status

Slave_IO_State	Waiting for master to send event
Master_Host	109.168.30.140
Master_Log_File	mysql-bin.000001
Read_Master_Log_Pos	104642344
Slave_IO_Running	Yes
Slave_SQL_Running	Yes
Last_Error	
Exec_Master_Log_Pos	104642344
Seconds_Behind_Master	0
<div>Start Reset Stop</div>	

DB Master Status

File	mysql-bin.000004
Position	86331153
<div>Reset</div>	

File System Status

File System Replica	Running
<div>Start Stop</div>	

Primary Node Status

Node is Primary	yes
-----------------	-----

DB Slave Status

Slave_IO_State	Waiting for master to send event
Master_Host	93.39.200.2
Master_Log_File	mysql-bin.000004
Read_Master_Log_Pos	86331153
Slave_IO_Running	Yes
Slave_SQL_Running	Yes
Last_Error	
Exec_Master_Log_Pos	86331153
Seconds_Behind_Master	0
<div>Start Reset Stop</div>	

DB Master Status

File	mysql-bin.000001
Position	104642344
<div>Reset</div>	

File System Status

File System Replica	Running
<div>Start Stop</div>	

Primary Node Status

Node is Primary	no
<div>Set As Primary</div>	

This tool can perform some actions on the cluster setup:

- Suspend Cluster
- Destroy Cluster

- Repair 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.

<div><div>DB Master Status</div><table><tr><td>File</td><td>mysqld-bin.000004</td></tr><tr><td>Position</td><td>86331153</td></tr><tr><td></td><td><div>Reset</div></td></tr></table></div>		File	mysqld-bin.000004	Position	86331153		<div>Reset</div>
File	mysqld-bin.000004						
Position	86331153						
	<div>Reset</div>						
<div><div>DB Master Status</div><table><tr><td>File</td><td>mysqld-bin.000001</td></tr><tr><td>Position</td><td>104642344</td></tr><tr><td></td><td><div>Reset</div></td></tr></table></div>		File	mysqld-bin.000001	Position	104642344		<div>Reset</div>
File	mysqld-bin.000001						
Position	104642344						
	<div>Reset</div>						
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

DB Slave Status		DB Slave Status	
Slave_IO_State	Waiting for master to send event	Slave_IO_State	Waiting for master to send event
Master_Host	109.168.30.140	Master_Host	93.39.200.2
Master_Log_File	mysqld-bin.000001	Master_Log_File	mysqld-bin.000004
Read_Master_Log_Pos	104642344	Read_Master_Log_Pos	86331153
Slave_IO_Running	Yes	Slave_IO_Running	Yes
Slave_SQL_Running	Yes	Slave_SQL_Running	Yes
Last_Error		Last_Error	
Exec_Master_Log_Pos	104642344	Exec_Master_Log_Pos	86331153
Seconds_Behind_Master	0	Seconds_Behind_Master	0
<div>StartResetStop</div>		<div>StartResetStop</div>	

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

File System Status		File System Status	
File System Replica	Running	File System Replica	Running
<div>StartStop</div>		<div>StartStop</div>	

Start	Starts the File System Replication daemon
-------	---

Stop	Stops the File System Replication daemon
------	--

×**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.