



CLUSTERLION PRE-INSTALLATION GUIDE

Thank you for your order and your decision to implement ClusterLion for Automatic Switchover within your MetroCluster system!

Please take time to read the following instructions thoroughly and carefully before installation of ClusterLion.

Please inform us about your planned installation date and time at support@clusterlion.com at least 5 working days in advance.

General setup:

A ClusterLion project consists of 2 ClusterLion appliances and 4 Agent-Boxes. Each MetroCluster Location requires 1 ClusterLion appliance and 2 Agent Boxes.

The ClusterLion appliance requires a mobile network connection. Since our clients' data centers are often located in a bunker or other locations with limited mobile connectivity, we require a location with adequate mobile connectivity for the ClusterLion Agent-Boxes. The Agent-Boxes can be patched via Ethernet up to 100m (328 feet) away from the ClusterLion appliance. Because the Agent-Boxes are supported with Power over Ethernet (PoE), please ensure to **only use patched cables without active components!**

The Agent-Boxes can be placed wherever you have mobile connectivity. If you have absolutely no mobile network coverage within buildings, please contact us to discuss options for outdoor installation.

For the installation of the ClusterLion solution, please ensure the following conditions are met (this applies to each MetroCluster Location):

- 1) The ClusterLion appliance requires 2U rack space in the MetroCluster rack.**
- 2) Because ClusterLion works with a mobile network connection, we require locations with adequate mobile connectivity for the installation of the supplied Agent-Boxes.** The Agent-Boxes can be positioned wherever you have a mobile connection (as long as no active repeater is installed). Ideal locations for the Agent-Boxes can include LAN raiser shaft, LAN floor distributors, etc. Simply anywhere a patched LAN connection can connect the ClusterLion appliance with the Agent-Boxes.
- 3) For each Location a directly patched LAN connection between the ClusterLion appliances and the Agent-Boxes are required.** IMPORTANT: There should NOT be any active components (e.g. switches) in-between the patched connection from the ClusterLion appliance to the Agent-Boxes. The length of the patched LAN connection should not exceed 100m (328 feet). The Agent-Boxes are powered with PoE (Power over Ethernet) from the ClusterLion appliance via the LAN connection, which is also responsible for the data transfer. Therefore a directly patched connection without any active components in-between is absolutely required. Please make sure that such a directly patched connection is available between the ClusterLion appliances in the NetApp rack and the future location of the Agent-Boxes, prior to their installation. In some cases it can take several days or weeks until a directly patched connection is established, which could delay the installation date.

- 4) **One Ethernet port at each NetApp controller.** For example e0j or e0l. Usually e0l is not in use.
- 5) **In addition to the Ethernet port, we require one serial console port on each NetApp controller.** In general the NetApp controller will be managed via the service processor. Therefore the serial console port should be free to use. For management purposes the serial cable can be unplugged in order to manage the NetApp controller via the serial port. **In this case please enable the Maintenance Mode in the ClusterLion Portal first. Once your tasks are completed, please reconnect the serial cable to the ClusterLion appliance and disable the Maintenance Mode in the ClusterLion Portal.**
- 6) **Please verify that the IP address range 192.168.175.x is not in use and send us a confirmation.** While we generally do not require the customer's IP addresses for installation purposes, since we are using a dedicated network port at the NetApp controller in an own broadcast domain, we have to prevent a IP address conflict. In case the IP addresses are already in use, we can change our IP address scheme. Internally we are using the IP range 192.168.175/24 for the management of all ClusterLion components. Additionally we are using the IPs 192.168.175.31/32 on each location to communicate with the NetApp Storage Controllers (SSH-access) and we therefore configure these IP-addresses at the MetroCluster-nodes. In case the mentioned IP addresses are already in use, we require one dedicated IP address for each side to reach the MetroCluster-nodes. **In this case please let us know the IP range that can be used. For example: 172.16.x.x or 10.x.x.x**

Neither the ClusterLion appliances nor the Agent-Boxes are allowed to have a connection to the LAN or Management-LAN of the customer! The LAN connection between the ClusterLion appliances and the Agent-Boxes are directly patched, without any connection to the customer's network. Consequently the ClusterLion appliances cannot be managed or monitored via the customer's LAN.

The ClusterLion solution is exclusively managed and monitored via our external ClusterLion Portal (Service GUI). The ClusterLion appliances are not accessible via the customer's internal network. The customer can access the ClusterLion Portal via all standard browsers for monitoring purposes. All events and notifications will be sent to a freely definable email distributor that can be managed directly by the customer via the ClusterLion Portal. This way the customer always stays informed about the activities around the ClusterLion solution.

Please review the mentioned requirements internally prior to the arrival of the appliances in order to ensure a smooth installation.

In case of any questions please contact us at support@clusterlion.com. Thank you!