Challenge 3 – Stacking the Odds

Space ship depots continue to come online, with launches to the Moon occurring daily. The moon bases have been stabilized, and humans are beginning to settle in.

Not surprisingly, many island nations fared better than expected during the outbreak. Their isolation could be very valuable if we face a third round of infection before the earth has been evacuated. We need to get them back on the grid as soon as possible. Japan, Madagascar, and Iceland are first on the list for building infrastructures. Local teams have managed to get some equipment, but all you'll have to start with is one repository and blank hardware. As we've learned while building the depots, travel is dangerous and difficult. You will need to create your infrastructure in a lab first, to ensure it will be able to be quickly deployed by a local team. Once the process has been deemed successful, we will establish a satellite link to the islands to get everything we need to the local repositories.

You must create an infrastructure from scratch using a VMware cluster including shared storage, HA, and DRS. There is a catch, it must be powered by OpenStack. Deployment of instances will be done by using the OpenStack Horizon dashboard only. Any version of OpenStack networking may be used. Obviously, there are bonus points for those who may choose to deploy an overlay network such as OVS and Neutron. The VM images will include one Linux and one Windows instance, any version or distribution will be allowed. DevStack cannot be used. In order to remove single points of failure due to the availability of human resources, you must integrate a second hypervisor of your choice. You must have two VM images hosted by this hypervisor, one Linux and one Windows.

You must document your topology and provide visual proof of working deployments using **video**.

Designs will be also be submitted in **PDF format, including diagrams, and all supporting documentation**. Your design should speak for itself, and your defense will support it with questions from the judges.