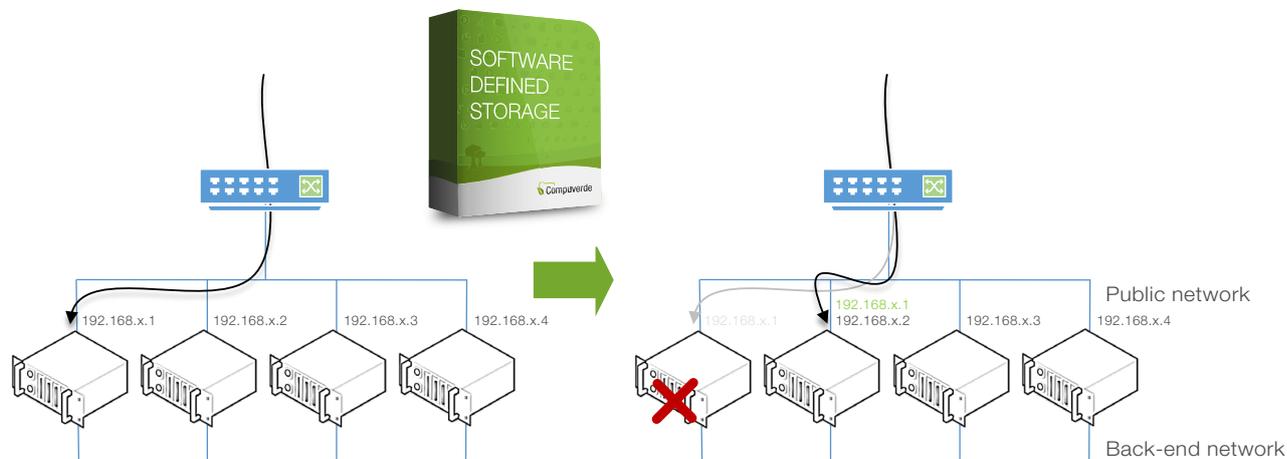# Compuverde Virtual IP

Compuverde's Virtual IP makes the IP addresses in your public network highly available. The feature improves redundancy in your network and provides a failover mechanism for node failures. It ensures that all your nodes are always available and if one of the nodes in your cluster goes down, it is automatically handled by another node.

How it works

Consider that your client is currently running strenuous reads/writes to the first node in your cluster (192.168.x.1) and the node (or a cache disk in the node) fails during this operation. Traditionally, this would cause an interruption in service as the node is down.

With Virtual IP, you will never experience an interruption in your storage service, as the failover mechanism redirects the reads/writes to another node in your cluster (in this example, 192.168.x.2). Meaning, when your client is reading/writing to one of the nodes in your cluster and this node goes down, the data operation is automatically transferred to another node in your cluster and this node would acquire the IP address of the dead node. Once the original node is back online, the data access operations will be restored to that node.

This way, all the nodes in the cluster always appear active to the client system and are always available for data access. Moreover, the transfer of data operations during node failure are performed automatically and transparent to the end user. This ensures that your storage infrastructure is always highly available.

Steps to enable Virtual IP

Two network interfaces, one public and one private (back-end) is required to enable Virtual IP.

Once you have ensured that you have two interfaces on your storage cluster, you can enable Virtual IP through the following steps, using the Compuverde Management Tool:

1. Choose the storage cluster and go to the Maintenance tab
2. Select all the nodes and take them offline
3. While offline, click Config, Enable virtual IP and then **Publish**
4. Return to the Maintenance tab and bring all nodes back online

For even faster failover, you can enable GARP. Please note however that this might lead to issues with some third party firewalls. If this happens, the switch or firewall may need to be restarted and GARP disabled.