

Direct Attach iSCSI – Are we moving close to the Convergence or going far from Scalability?

Some time back I wrote an article about [Scalable Direct Attach 3Par Storage with HP Virtual Connect](#) which is an upcoming revolution in the Blade system and it's direct attach in nature. While it is going to give you boost in the TCO and ROI but at the same time Direct Attach comes with some limitation and flexibility as well.

Here in this article I am going to talk about the existing limitation of Direct attach iSCSI with HP Virtual Connect Flex Fabric.

In Firmware 3.30 we have seen that an iSCSI device can be directly attached to the Virtual Connect domain. without any switch infrastructure in place.

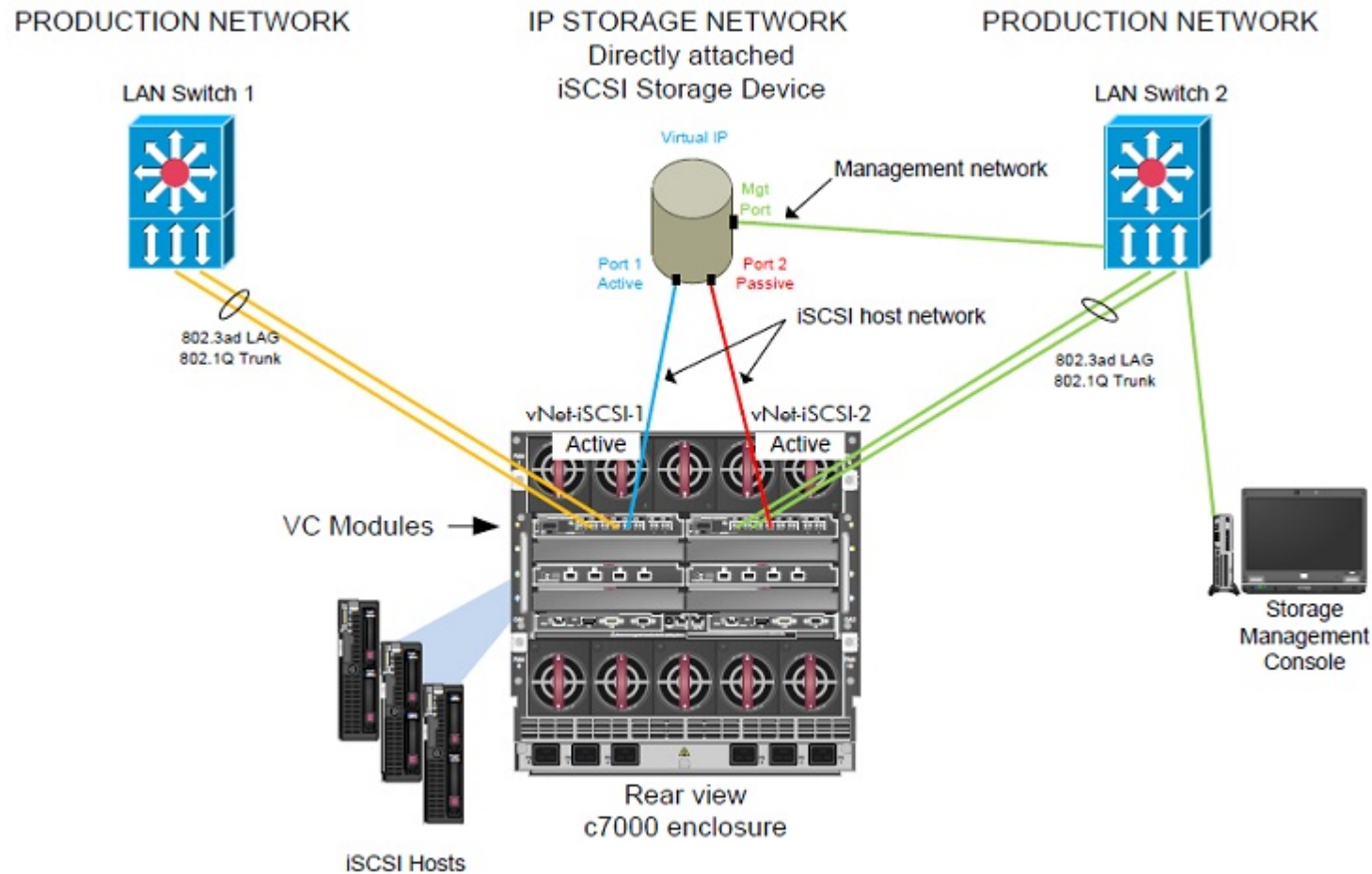
This uses more VC uplinks than a standard deployment but at the same time without any additional or dedicated switches are required. So while it reduces cost significantly at the same time it brings complexity down too.

But it comes with lot of limitation and reducing our flexibility also. Here are those.

1. **When an iSCSI storage device is directly connected to a VC Domain, this iSCSI device is only accessible to the servers belonging to this Virtual Connect Domain. So that means we can't use more than 4 chassis at a time as it need another VC Domain to be in place.**
2. **iSCSI Storage Systems sharing the same ports for both iSCSI host connectivity traffic and LAN management (also known as in-band management) can only be managed from the Virtual Connect Domain.**
3. **The only network interface bond supported on the iSCSI Storage system is Active-Passive. So we can't use Adaptive Load Balancing, in a case of HP P4000 Series iSCSI Storage. So we are loosing the [ALB functionality](#).**
4. **VC Active/Standby iSCSI vNet configuration is not supported. The direct-attached scenario supports only one iSCSI device per VC Active/Active network. To support more direct-attached iSCSI devices, you must create an Active/Active VC network for each iSCSI device.**

Ok, we heard about these limitations now let us quickly visualize the OOB (Out of Band) Management and In-Band Management with HP Virtual Connect.

OOB Management uses separate ports for management and host traffic and is depicted as below:

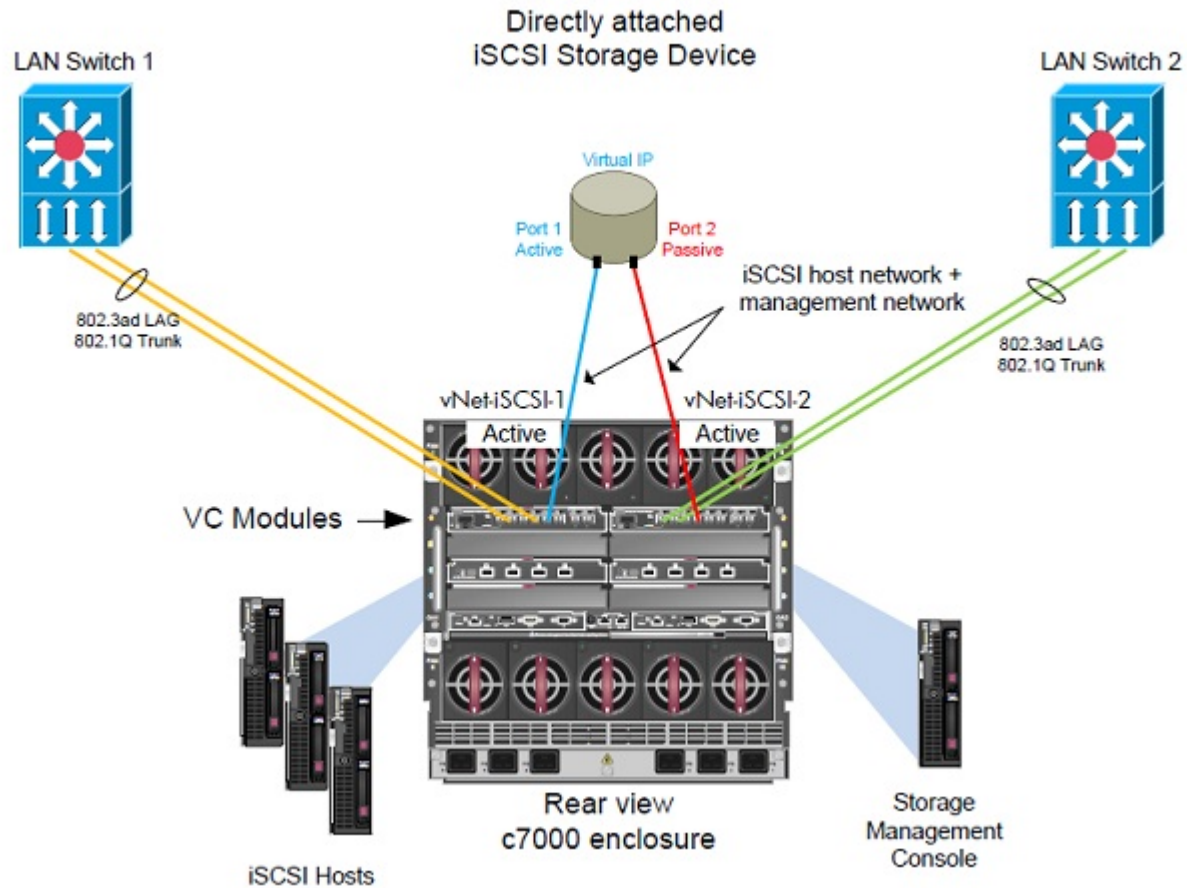


In Band Management uses the same ports for management and host traffic. It is depicted as below:

PRODUCTION NETWORK

IP STORAGE NETWORK

PRODUCTION NETWORK



So, having it depicted all and stating all of the limitations that we have as of now, let me ask you all.

"DO YOU THINK WE ARE MOVING CLOSER TO THE CONVERGENCE OR GOING FAR FROM SCALABILITY AND FLEXIBILITY"