CMS required a highly reliable storage solution to store and run nearly 40 VMware virtual machines that power its entire operations of the data center. There was a wide array of servers including SQL server database, 3 web servers, DNS and DHCP servers, email servers, remote desktop servers, data center monitoring application servers and others. CMS needed to have a powerful storage solution to be configured in a high availability setup to have automatic failover from one storage appliance to a second mirrored node, eliminating completely any single point of failure. The SLA requirements of the data center are so high and rigorous that CMS needed to set up redundant storage with failover not in the same server room but have the redundant storage node remotely configured at an offsite location across town in Michigan.

CMS had strict requirements for setting up a dedicated fiber network across town to connect two storage appliances in case of a disaster at the main datacenter facility. The expenses were already rising very rapidly for this project but the budget was very limited. Ultimately the biggest problem was finding a reliable storage product that had high availability or automatic failover architecture while also being affordably priced. Finding this combination of technology and affordability was critical for the project to get approval and to be successful.

SOLUTION

Andy Kasdorf and Dan Graham, Network and Software Engineers at CMS, looked at EMC CLARiiON iSCSI SAN as the primary choice but the price was prohibitively high for the storage appliance. At the same time as they were evaluating EMC, CMS team identified StarWind Virtual SAN software as a solution that allowed them to build a SAN out of commodity server allowing them to create hardware-agnostic storage that is customized to be redundant, highly reliable and highly available to run their IT data center operations. CMS chose SuperMicro servers to build their SAN with each having ten 1TB SAS/15k drives in RAID10 configuration ultimately delivering about 5.7TB of total capacity each. With StarWind, CMS was able to set up a high availability configuration where one storage box could automatically failover to a redundant box that is located across town in case of a disaster. After several months of rigorous testing, CMS concluded that using StarWind was their ideal storage solution for running CMS Internet’s operations and network infrastructure. For Andy Kasdorf there were four key reasons for choosing StarWind Virtual SAN software over of EMC CLARiiON. He found that for $3000 per HA node, StarWind had the best price on the market. Andy also liked the flexibility of using software to build a highly reliable SAN out of industry-standard SuperMicro servers and the ability to separate network interface from storage interface and have two separate networks. Finally, Andy liked the consistent and accessible level of support that he got from StarWind pre-sales and post-sales support team. After downloading and trying StarWind, Andy and Dan said that it was surprising that such reliable high availability storage is available at such an affordable price and this is why they chose StarWind over EMC.