

Headquartered in Columbus, Ohio, JEGS High Performance is a specialist retailer of high-performance auto parts to both professional race drivers and car enthusiasts. Founded in 1960, JEGS now employs more than 350 people and has a 250,000 square-foot warehouse supplying its two retail stores, mail order business and website.



## *Challenge.*

Jegs was seeking a solution for disaster recovery. In the event that a situation arose that would render the Power8 unusable they needed a way to not only protect their data but get the servers back on line in a short period of recovery time. MAPSYS installed their Power8 production machine in 2012. The machine was equipped with V7000 storage and we had been looking at various ways that the facility could be protected in the event of a major outage.

Various methods had been discussed. They had their backup tapes but it would take days using those tapes to recreate their environment on another machine in another location. They also considered a hosted solution but this proved to be very expensive given the fact that their Power8 houses a large number of servers via virtualization and the hosted solution just wasn't practical.

## *Proposed Solution.*

The solution was formed out of the advent of SAN mirroring and the various options IBM had recently developed and made available at a relatively low cost compared to the alternatives. In addition, the solution was relatively easy for the customer to understand and utilize. We had talked in general terms prior to this of a solution involving a second server at a remote site, but the advent of a process using two SANs and the application of what is known as Global Mirroring with Changes turned out to be the answer.

One of the issues with mirroring SANs can be the complexities involved in setting up the environment and then getting data lines between sites that were not astronomically expensive. This proposed solution of using two Power8 systems with almost identical SAN storage units coupled with the latest in IBM technology of Global Mirroring was just the answer everyone had been looking for.

The proposition was to install a new Power8 machine with a new SAN similar almost identical in design and layout to the existing Power8 production machine. The first phase of the operation is to get install the two Power8 machines right next to each other and implement the Global Mirroring of the two SANs. The second and final phase would be to then move the second Power8 and its SAN storage to the remote facility and resume the offsite mirroring functionality for production.

In addition to the benefit of the disaster recovery aspect, this solution has the additional benefits of being able to do remote backups as well as remote testing, all without having to interrupt in any way the 24/7 utilization of the production environment.

MAPSYS and the customer worked together to craft a solution that would be the most reasonable in cost and provide the best protection against a disaster scenario, remote backup facility, and remote testing resources.

## *Implemented Solution.*

In June of this year we installed a Power8 that was almost identical in hardware to their existing production Power8. We installed a V5000 SAN which was also similar in design and capacity to their existing V7000 SAN.

MAPSYS experts performed the physical installation of the hardware as well as the installation of the various operating systems such as VIO, Iseries, and AIX. We implemented the DR environment on the V5000 and began to test the Global Mirroring. This work was carried out both on site and remotely.

At this time, we are still in Phase one of the implementation. The new machine and all of its LPAR servers are in place and connected utilizing a direct network connection to the production machine. Both the production and development LPARs are being mirrored to the DR machine 24/7. We have shown the customer how the environment works and have done demos of failover scenarios. We are still doing some knowledge transfer to the customer to give them the ability to implement failover, backup, and/or testing.

The customer is in the process of constructing a computer room at their 11<sup>th</sup> Ave facility in Columbus. When that facility is complete and the customer is ready to move, the DR Power8 can be physically moved to that facility and the data synced to the Delaware production facility.

The solution has turned out very well and have exceeded our expectations in regards to the ease at which we could implement the environment. The customer is very satisfied in both the installation of the equipment and the implementation of this solution.