

## IBM® System x™ Boot from SAN Blade Failover Solution

High availability when your hardware needs it most



### Boot from SAN Blade Server Failover Solution

A high availability BladeCenter solution is now available from IBM that helps reduce downtime for Blade servers. The solution provides a mechanism for an active blade to failover to a cold spare blade in the event of a hardware failure. Using the Boot from SAN Blade Server Failover Solution, the downtime during a hardware failure can be reduced to a few minutes (roughly the time it takes to reboot a server).

### Offering Highlights

**STG Lab Services can provide hands-on training and implementation services to help you update, install, configure, and exploit the capabilities of the IBM System x Boot from SAN Blade Failover Solution.**

**This engagement is designed for architects and system administrators operating a System x environment/ The key benefits of the STG Lab Services Boot from SAN Blade Failover Solution for your IBM System x are:**

- **Help reduce downtime and ongoing administration effort by implementing a failover solution for your IBM BladeCenter environment.**

- **This service is intended for Blade servers configured to boot from SAN**

- **Includes initial implementation of a failover solution for BladeCenter environment**

- **Includes skills transfer on best practices maintaining and operating the failover solution**

- **Leverages IBM Director system management tool**

- **The solution is custom tailored to support the your requirements, preferences and desired scenarios for failover of production Blade servers**

The solution works in conjunction with a Director server to monitor Blade hardware failure events. When one of these Blade failure events occurs, the failover extension takes over by powering off the failing Blade, moving the boot drive and all remotely mapped drives to a spare blade, then powering on the spare blade. The movement of the drives from the failing Blade to the standby Blade is performed through communications to the storage system using an industry standard SMI-S provider. The association of the failing Blade to the SAN or iSCSI LUNs is modified on the storage system through the SMI-S provider so that the standby Blade becomes associated with the LUNs.

This entire system can be configured to be completely automatic, completely manual or anything in between depending upon your specific needs. A trained IBM consultant will work with you to design and install the system to meet your needs as well as explain the details of the system to you.

Boot from SAN Blade Server Failover Solution Prerequisites:

- *BladeCenter is integrated with DS4000, DS6000 SAN, NSeries / Network Appliances or EMC CLARiON storage system*
- *Availability of spare Blade servers for each of the server types*
- *Blade servers are set up to boot from SAN or iSCSI*
- *IBM Director environment is set up for BladeCenter and Storage environment*
- *IBM Director extension scripts are implemented to orchestrate Blade server failover*

Implementation of these solutions requires to:

1. *Install and configure the storage system*
2. *Install and configure a BladeCenter environment and integrate it with the Storage system*
3. *Develop and capture server images with a configuration of OS and software stack for each of the Blade servers*
4. *Define the mapping for each of the target Blade servers that would specify what spare server would be used to bring up the OS and software stack in case of failure*
5. *Install and configure IBM Director environment with the extension scripts to orchestrate Blade server failover*
6. *Conduct skills transfer on management and maintenance of the IBM Director scripts*

A pre-packaged solution offering is prepared for a Boot from SAN Blade Failover IBM Director extension with support for up to 5 BladeCenter chassis, implementation and solution services and support services. This solution package can be extended, customized and tailored per customer requirements.

### **Pricing**

These solution packages can be ordered via IBM System x™ part number 40M3693, starting at quantity 8 at a unit price of \$2500 for a total amount of \$20,000 (Labor and travel costs for onsite service is included). Annual support contract packages are available, starting at \$2500.

### **Services We Provide**

STG Lab Services brings the skills and experience of the lab to your enterprise through on-site consulting, classroom training, and skills transfer to your personnel in your environment. STG Lab Services has both high quality, field tested offerings and the resources to bring customized solutions to your enterprise. Contact one of our opportunity managers for more information.

### **For More Information**

To find out more about the IBM System x Boot from SAN Blade Failover Solution and other System x services, contact IBM STG Lab Services System x Mike Sigl (US Central and West regions), siglm@us.ibm.com / (425) 803-5901 or Michael Karchov (US Federal and US East Regions), Michael.karchov@us.ibm.com / (919) 254-0706 .



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