

The Five Steps to System i High Availability

By Bill Hammond

What is true high availability when it comes to computer systems? Is it 95%? Is it 99%? Is it 99.9%?

The answer would seem to depend on your requirements. For a solitary PC user, 95% availability might be adequate; for a company with less than mission-critical IT systems—e-mail servers, for instance—99% might be just right.

But for some companies, 99% or even 99.9% is not sufficient. They need close to 100% system availability—what is generally referred to as the Holy Grail of high availability, or the five nines. This level of availability translates to system downtime of no more than 5.26 minutes a year.

Any organization using IBM® System i™ has come to accept very high levels of uptime as part and parcel of the scenery: after all, the System i (formerly the AS/400™) was engineered from Day One in 1987 to provide among the highest levels of reliability and availability in the industry.

But even those levels are not high enough for some customers, and they need the ability to switch seamlessly and with virtually no disruption from their production system to a backup system. Such a switch is typically needed to avoid planned downtime, or is necessary due to an unexpected outage or emergency.

This approach affords maximum benefit as it eliminates costly, repetitious planned downtime, saves money and enhances profitability, improves productivity, supports revenue growth, and minimizes business risks from unplanned downtime due to hardware failures, human errors, or disasters.

There are five secrets to being truly switch-ready:

- A high-speed, bullet-proof apply process tightly integrated with IBM's remote journaling provides assurance your secondary copies are always up-to-date.
- Powerful audits to know the systems are in synch and you can switch any time you need to, with total confidence, year in and year out. For example, if you change something in your IT environment and forget to proactively tell the HA software, most solutions will not automatically notice the change and it may become a serious issue in the future. Switch time is the wrong time to discover a problem. Consequently, you should look for an HA solution that has an extensive array of continuous, built-in auditing features.
- Autonomics to self-heal and self-monitor the high-availability environment. In high availability,

autonomics offers significant time savings and productivity gains. It means automated, smart detection and correction of issues across the System i source and target environment. High-availability autonomics should be designed to deliver increased responsiveness by adapting dynamically to changing environments.

Autonomics should provide greater business resiliency by discovering, diagnosing, and acting to prevent disruptions. Above all, autonomics capabilities should save you significant effort and detail work. If an HA solution includes these technologies, it should minimize administrative tasks and manual intervention for you or IT staff to such a degree that it requires a simple, once-a-day check of the status screen or a status e-mail/page.

- Automation to mask complexity with simplicity. Automation within

a high-availability solution should focus on making it as easy as possible to perform switches and integrate high availability into operations, such as data backups via tape. In other words, the job of automation is to enable complete simplicity.

- Easy administration: just 10 minutes a day, with minimal resources. The key to “easy-to-use” lies in an interface that matches your requirements but takes little time to understand or use. Some System i professionals have many years' experience and prefer to use the 5250 “green screen” interface. Others have more experience with point-and-click GUI systems. A high-availability solution should not make either user choose. High-availability solutions that are truly easy to use will accommodate user preferences. In addition, one screen should be all you need. All of the complexity of the technology should happen behind the scenes. This means that it should only require one screen to monitor replication, journaling, auditing, error resolution, and other status information.

Bottom line: If you're thinking of implementing System i and want the benefits of an always switch-ready environment as well as the assurance that it will continue to work time after time, the five truths of high availability will help you achieve greater efficiencies and low TCO. Arm yourself with inside information and get the facts about next-generation technologies. 



IBM® System i™

About the author

Bill Hammond directs Vision Solutions' product strategy for information availability software solutions. Hammond joined Vision Solutions in 2003 with over 15 years of experience in product marketing, product management and product development roles in the technology industry. At Vision Solutions, Hammond is responsible for driving product roadmaps, product positioning and messaging, competitive analysis, and marketplace intelligence for Vision Solutions' high availability, data protection and recovery and data integration solutions.