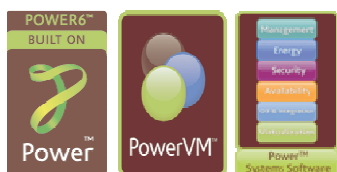




IBM i – Built For Business

The Power of Resilient, Efficient Business Processing (v2.0)

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Challenges For The Entrepreneur

Healthy economies depend on the formation and growth of new businesses. Unhappily, the success rates for new enterprises are typically quite low. Even the best innovations cannot propel a business to success without a proper foundation for business automation. Much more is needed than the basic business plan of market potential and capacity, or the anticipated sales revenues compared to the fixed and variable costs of running a business.

Studies show that the personalities and individual characteristics of the entrepreneurs who start new businesses may be the most significant factors of success. An individual's management and decision-making skills are now thought to be so important that venture capitalists have begun to look for people who have a history of successful entrepreneurial efforts in addition to a good business plan. It is more vital to have an entrepreneur with the ability to make independent assessments in the face of unanticipated challenges.

The owner of a small business may be the entire management team. The ability to make good judgments and solid far-reaching choices in the areas of finance, marketing, accounting, bookkeeping, and human relations is a requirement. These are the different components that fit together to form the entirety of a business. Consequently, the choice of a computer platform and a set of application solutions to efficiently enable these pieces may be the most important decision a small business can make as it seeks to best the competition and support the planned longevity of that enterprise.

IBM Power and i – The Right Tool for Business

There is a saying that "for the best results one needs the best tools for the job". For 20 years, AS/400, then System i with i5/OS has been the industry's leading integrated solutions platform for small and mid-sized companies. Now, the IBM i operating system (formerly called i5/OS) can deliver the proven value of integration that small businesses need on any of several new POWER6™ systems. It is specially optimized to address the computing needs of clients that expect to run a variety of concurrent commercial applications and operating environments with multiple simultaneous users who need cost-effective, secure, and reliable access to different programs and data. Unlike other operating systems, i is designed to provide these services without requiring additional customer-selected and supported software products that generally provide database capabilities, security, performance management, save/restore functions, virus checking, etc.

System i has been very prevalent in business because of its minimal staffing requirements, all-in-one design, extensive portfolio of applications and its overall simplicity. The unique multi-function architecture and inherent virus resistance allows POWER6™ systems and i to be highly reliable, secure business computers with a proven low total cost of ownership. As IDC published in July of 2008, "The combination of IBM i and Power server systems is aligned with the major trends in the IT industry: virtualization, consolidation, support for high availability, and support for green IT through efficient use of IT resources."¹

i Operating System Highlights:

Smart Design – built for business, designed for business applications, with a broad and growing selection of proven commercial offerings

Integrated – designed and tested with a resilient all-in-one system design that helps to combine the wide range of processes and information necessary to support a successful business. Power and i are ready to run as soon as the system is plugged in.

Built-in Security & Virus-resistance helps clients safeguard data and avoid the lost productivity and risk associated with managing viruses

Simple to Use and Manage - self-managing, self-tuning and requiring minimal staff. IT costs can be reduced by automatically managing work that must be performed by an IT specialist on other systems. Efficiency delivers reduced staffing requirements!

Reliable – possessing a well-earned reputation for reliability and uptime while offering the ability to add new features and hardware without any business disruption.

Flexible – One line of POWER6™ technology-based systems from a 1-way to a 64-way will run Linux, AIX and i as well as supporting multiple operating environments such as Java, VOIP, PHP, WebSphere, Lotus & Windows – simultaneously! Unlike Windows-based servers, i is typically used to run multiple business applications on the same system.

New Uses – the IBM BladeCenter JS12 Express blade server supports i and offers exceptional value and expandability for clients who desire a durable server solution for consolidating multiple applications and servers into a single chassis.

¹ IBM i and Power Systems: Leveraging Virtualization in the Datacenter for Flexibility and Business Continuity, Jean S. Bozman IDC, July 2008
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Growth and Complexity

Small businesses may start out with one or two Windows-based servers under the assumption that this is a simple, cost-effective decision as well as a familiar technology. However, they frequently find that changing needs and initial business growth necessitates the acquisition of more PC's. Eventually applications and data reside on multiple servers which must be connected by a network that may require routers, gateways, firewalls, more dedicated servers and, of course, IT staffing. Change management, availability, and technology replacements can quickly become costly, disruptive endeavors.

Control of server costs has become an increasingly important priority for businesses of all sizes. As server infrastructure expenditures grow, traditional IT services such as security, availability, and performance become more critical as applications support customers, business partners, suppliers as well as internal users. Ultimately, the ability of a small company to cost-effectively maintain current server technology in their organization may spell the difference between long-term success or eventual failure. As the Internet has made millions of new users and devices accessible, the heavy workload requirements of today's computing is shifting to larger, more reliable servers with diverse offerings. As a result personal computers are getting larger, but the original design point for single-application use remains an inhibiting legacy.

The i operating environment (formerly i5/OS) supports a broad range of open standards-based and built-in environments supporting application deployment from a diverse group of independent software vendors (ISVs). These environments include Java, PHP, C, RPG, COBOL, Apache and Domino. Data can also be accessed via a variety of methods including JDBC, ODBC and .NET across several network technologies ranging from TCP/IP to asynchronous communications.

Unlike Windows-based solutions that commonly add incremental servers to support new applications, partitioning on Power systems allows many different operating environments to share a single system while being managed as though they were separate and independent servers. This built-in function enables applications to run even if they require i, UNIX (AIX), Linux, Domino, Windows management or another copy of i. These unique capabilities help IBM customers better utilize IT assets while avoiding the costs of deploying new servers as business changes. According to ITG in 2006, "ITG finds that System i deployments are 50% less expensive than Windows servers in a 3 year IT cost comparison."²

Simpler IT Management

i is much more than just an operating system. It includes an SQL-standards based integrated database, security, automatic workload management, web serving, communication and networking capability, embedded self-healing and protecting capabilities, online help and much more. i users do not have to install, test, troubleshoot, and maintain these software options as would be required on most other platforms.

The Unpopular Choice for Consultants

Because the DB2 relational database is integrated and many common administration tasks are automated, i users do not typically require a database administrator (DBA) or systems integration services. As one would then understand, this makes the i operating environment an improbable recommendation for the independent industry consultant or outsourced DBA professional who might assist with a platform selection **and** contract for the anticipated follow-on implementation services. The integrated architecture of a system built for business made the IBM System i easy to use, simple to manage and allows growth without replacement, migrations or conversions. Power users with i expect nothing less in the future.

i also dynamically responds to changes in workloads by automatically shifting or activating additional processing power based on the needs of the applications running on it. An intuitive graphical user interface (GUI) is also available if manual adjustments are preferred. Unlike other platforms that require multiple networked servers to manage diverse application requirements, i provides a single point of administration for i, Windows, Linux and AIX 5L users and Power applications. Shared disk, tape, DVD, ethernet and other resources further simplify server management and improve information security. This unique, integrated approach allows i to be self-managing, self-tuning and requires minimal technical staff or consultant guidance, which again reduces the cost of IT operations compared to alternative systems.

² Value Proposition for System i, Business Case for Gaming and Hospitality Deployments, ITG, 2006
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Total Cost

Of course cost is a very significant factor in virtually every decision made in business. Opportunity cost is a measure of everything that must be sacrificed in order to attain an identified business objective. One takes risks and incurs expense in the hope that the opportunity cost will pay off in the end. Those costs may include money spent in start-up activities, advertising, or even wages for hiring employees. However, they can also come in the form of back-end expenses when business objectives change and the initial investments must grow or be updated. An entrepreneur takes risk by investing the money in ways expected to eventually pay back with greater dividends. The experienced manager also knows to plan for the potential changes that must be accommodated due to unknown factors.

“There is nothing permanent except change.” -Heraclitus

The “foundation” for business, as noted on the initial page of this document must be constructed with an eye to the future. The ability to respond positively to change is the most important factor for success if an enterprise is to sustain itself. There are two main approaches to managing such change. One approach is to predict and prepare while the other is to become agile and adapt. The traditional approach attempts to predict, plan, and prepare for foreseeable changes. This works quite well when changes are indeed predictable and the problem area is familiar. On the other hand, an agile business does not expect fixed requirements or everlasting technology. It prepares itself by implementing business processes and tools that ensure that tomorrow’s competitive edge can be incorporated in a manner that flattens the cost curve of adding necessary new features, even if those features cannot be anticipated today.

Computing technology has been a case in point for continuous change. Windows-based servers are often quickly outmoded and must be replaced as hardware and software advancements are delivered to the market. Conversion, migration and systems integration services are now the backbone for many service organizations. However, while other architectures require changing, recompiling and re-integrating applications from release to release, or from service pack to service pack; the i operating environment and its predecessors has not encountered these same challenges. Even dramatic changes in underlying technologies, such as processor architectures, storage advancements, I/O adapters and bus structures, have been and can be introduced without disruption to the business applications supported by Power systems and i. The ability to run an application, without manual recompilation, on a later generation of OS or server has been offered to IBM customers by this family of products since 1978. This remarkable platform transitioned from 32-bit processors with 48-bit addressability to 64-bit RISC processors running full 64-bit applications in 1995 and expects to embrace new technologies far into the future with the 2008 announcements unifying i and p applications on POWER6™.

A Better Alternative

There have been numerous independent studies over the past decade reviewing the total cost of ownership (TCO) for businesses utilizing system and servers using enterprise resource management (ERM) applications across multiple server offerings. IBM System i (and earlier models in this family) have fared well in studies involving competing Unix server and Intel-based ERM solutions (including Microsoft Windows NT Server, Microsoft Windows 2000, Novell NetWare, Unix, and Linux), databases, and packaged applications. This is due to TCO advantages in the areas of availability of data and applications, IT staffing productivity, as well as the resulting user productivity.

IBM’s continued dedication to i was expanded in 2008 with the announcement of the IBM i Edition Express for BladeCenter S. The i operating environment, with hundreds of thousands of references and proven solutions available for all types of businesses, is now offered on a blade as the perfect alternative to the traditional rack/tower server. IBM customers are now able to reduce IT costs and complexity by consolidating their IBM i and Windows applications onto a single IBM BladeCenter solution. i offers a highly reliable platform with user-based pricing and a variety of expansion options to help a company maximize return on its IT investments as it grows with an enterprise. i is a secure, virus-resistant, all-in-one solution that costs less to run and requires fewer people to manage. As Lee Kroon at MC Press Online noted on April 10, 2007, “Big Blue is throwing away the book on how to price the System i and taking off the gloves in its battle with Microsoft.”

Please contact IBM or your local IBM business partner for additional information to understand why an IBM POWER6™ system and i is the right alternative for your business.

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