



IBM iSeries™: Keeping it simple

The IBM iSeries™ system has long been a highly reliable, highly secure platform for integrating business computing. Today's iSeries is also a platform for integrating and simplifying IT.

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Highlights

Today's iSeries systems are helping businesses capture the benefits of simplified infrastructure.

A survey of companies that simplified their infrastructure with iSeries systems finds that the iSeries solution paid for itself in "just over five months."²

Introduction

The "i" in "iSeries" has always meant integration. The design of IBM iSeries™ integrates the components necessary to support robust business computing—components such as the operating system, middleware, database management, application servers, security and more. Now businesses are using iSeries systems to integrate multiple computing environments and simplify their entire IT infrastructure.

Why simplify infrastructure? By replacing collections of small servers with a single robust system, by sweeping data from scattered servers into repositories co-located with applications and by managing and protecting resources as pools of shared assets, businesses can:

- Reduce operations costs
- Increase productivity
- Facilitate business growth by enhancing business agility

The integrated design of iSeries can help businesses simplify infrastructure economically and achieve the benefits quickly.

Designed for ROI

iSeries systems are designed to reduce complexity without sacrificing flexibility. An iSeries system integrates multiple computing environments without restricting the range of business applications being run. The payoff of simplifying infrastructure can be astounding. In 2005, IDC studied 12 companies in the United States, Europe and Asia that had deployed iSeries to consolidate IBM i5/OS™, Linux®, AIX 5L™, and Windows® environments.¹ Key findings include:

- Three-year ROI of 258% on average across sites
- Payback period of just over five months
- Productivity improvement of 68% in IT operations.²

Designed to integrate environments

Many businesses find themselves supporting multiple computing environments. For example, a business might run Windows and Linux services applications on Intel processor-based servers and run core business applications in an iSeries system. Business needs might require such a mix of applications, but the mix of servers and systems on which they run can grow into a complex infrastructure that is cumbersome and costly to manage.

An iSeries system can transform such a complex environment into a single, integrated infrastructure. For example, iSeries systems can simultaneously support four different operating systems on a single platform, as illustrated: i5/OS, Linux, AIX 5L and Windows.

¹Windows on iSeries is supported by means of IXA or IXS.

²IDC white paper, sponsored by IBM, "Infrastructure Simplification and the ROI of Consolidating Windows, Linux, and AIX 5L Applications on IBM eServer iSeries Systems," September 2005.

Highlights



By consolidating environments onto one platform, an iSeries system can help reduce the cost of IT operations and maintenance.

By consolidating several operating environments onto one platform, an iSeries system can help reduce your total number of servers dramatically, with a corresponding reduction in the cost of operations and maintenance. This reduction generates savings that add directly to your bottom line—savings you can invest in growing your top line rather than in growing your IT.

i5/OS can improve the productivity of Linux, AIX 5L and Windows applications consolidated in an iSeries system.

Designed to raise productivity

i5/OS features can improve the productivity of applications running in Linux, AIX 5L and Windows environments consolidated in an iSeries system. For example, i5/OS can raise productivity in the areas of:

- **Storage management:** An iSeries system can manage storage for multiple environments as a single, accessible, protected virtual pool. i5/OS, Linux, AIX 5L and Windows applications can all use storage managed by i5/OS. In addition, i5/OS automatically spreads data across all the physical disk drives in the pool to optimize performance. i5/OS storage management eliminates the burden of implementing unique management strategies for dedicated disks that typically populate farms of servers, and dissolves the barriers that isolate data and resources in under-utilized, under-performing, over-managed silos.
- **Systems management:** iSeries Navigator allows systems administrators to execute many essential i5/OS, Linux, AIX 5L and Windows tasks from a single graphical user interface (GUI). The GUI eliminates the need to learn and employ several unique interfaces to execute identical tasks in different environments.
- **Security management:** When you employ IBM Integrated xSeries Solutions to run Windows applications and infrastructure in an iSeries system, you can easily centralize and synchronize administration of i5/OS and Windows user IDs and passwords. Centralization reduces the overhead of maintaining multiple IDs, passwords and authorizations for users who access both i5/OS and Windows applications.
- **Workload management:** Advanced dynamic logical partitioning (LPAR) capabilities enable an iSeries system to optimize applications by automatically distributing the processing across i5/OS, Linux and AIX 5L partitions.
- **Communications management:** i5/OS, Linux, AIX 5L and Windows applications consolidated in an iSeries system can communicate over internal, high-speed Virtual Ethernet network connections rather than over an external network. Virtual Ethernet can connect environments or isolate them for security purposes. With no cables, connectors, hubs or routers, Virtual Ethernet

Highlights

To backup the entire iSeries system infrastructure: one set of tools, one procedure and one device. Simple.

Simplifying infrastructure in an iSeries system may provide a competitive advantage.

provides fast, economical and reliable communication among the applications in an iSeries system.

- **Infrastructure management.** An iSeries system enables staff to implement consistent, enterprise-wide operations across multiple environments. For example, a typical server farm may scatter data through multiple servers, each running backup processes and each requiring multiple tape drives. By contrast, Windows applications run on an iSeries system can share storage and backup resources with those of i5/OS, Linux and AIX 5L applications. Backup and recovery tools and procedures for all can be the same. One tape device can perform automated backup for the entire infrastructure. It's that simple.

Designed for growth

"Business as usual" is over. In today's wireless, global marketplace, opportunities and threats appear and disappear in 24 time zones throughout the 24-hour business day. Growth today depends not on perfecting business as usual, but on managing the unusual and on responding quickly to unforeseen opportunities.

Integrated, simplified infrastructure can provide a competitive advantage in today's marketplace. Simplified infrastructure can be aligned more quickly with emerging opportunities than can a complex of loosely associated computing environments. And infrastructure simplified in an iSeries system can provide the additional advantages of being:

- **Highly available:** High availability options for the iSeries family can help your business pursue opportunities around the globe and around the clock.
- **Open to innovative technology:** Sometimes change in the marketplace requires new alliances or an acquisition. iSeries systems comply with open, cross-industry standards such as Web Services Descriptive Language (WSDL), Eclipse, Java®, XML, and others. This compliance helps you to extend your value chain to a global pool of potential partners with whom to execute initiatives that require shared processes and data and to a global pool of talent with which to collaborate on innovative solutions.
- **Easily adaptable:** By integrating i5/OS, Linux, AIX 5L and Windows environments, an iSeries system gives you access to a pool of business applications that represents over 80% of the planet's application software revenues—all from a single system infrastructure.
- **Quickly scalable:** An iSeries system is an integrated platform for applications: processors integrated with application workload management; operating systems integrated with middleware; systems integrated with systems management, security and so on. As an integrated platform rather than a collection of components bound by a point-in-time solution, an iSeries system scales quickly to reflect expanding opportunities for business growth.

Highlights

Infrastructure simplified in an iSeries system can evolve with your success.

“Consolidation to an iSeries system was the easiest sell to the board for unbudgeted expenditure I have ever made.” Malcolm Duff, Platform IT Director

- **Perfectible.** Because an iSeries system simplifies management of applications and infrastructure, an iSeries system frees staff to continuously refine infrastructure to meet or anticipate new business requirements. It also frees staff to address tasks such as raising service levels and assessing new solutions. Infrastructure simplified in an iSeries system can evolve with your success.

Simplification succeeds on iSeries

IBM customers such as Platform demonstrate that simplifying infrastructure in an iSeries system succeeds. Platform is an intermediary lender in the UK mortgage market. Platform processed mortgage applications on IBM AS/400® systems with additional infrastructure applications on Intel processor-based servers. When Microsoft ended support of Windows NT®, Platform decided it was time for “a strategic rethink” of the company’s IT infrastructure.

After working with Platinum Blue, an IBM Business Partner, Platform decided to consolidate four AS/400 systems to a single iSeries system. Three iSeries LPARs run core mortgage applications, Web servers and Linux file and print services.

“We did not want live production data exposed to the Web,” says Malcolm Duff, IT Director at Platform. “By using LPARs on the iSeries, we can provide very high-speed internal network connections from the Web server to production data, with very high levels of security.” The security levels on iSeries enable Platform to accept mortgage applications over the Internet, leading to fast sales.

Platform also replaced 12 Intel processor-based servers with nine xSeries servers in the iSeries system. The integrated xSeries servers utilize iSeries virtual storage, tape and network resources. Duff says that the solution enabled Platform to avoid “the cost of implementing separate backup and storage area network strategies for our Windows environments.”

Other benefits of Platform’s consolidation on iSeries include reduced physical footprint, reduced administrative workload for IT, better data integrity and great scalability.

“The iSeries is a fantastic platform for consolidation,” says Duff. “Consolidation to an iSeries system was the easiest sell to the board for unbudgeted expenditure I ever made.”

For more iSeries success stories, visit: www.ibm.com/series/success

For more on infrastructure simplification, visit:
www.ibm.com/servers/eserver/series/itsimplification



This paper was developed and published by the International Technical Support Organization.

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Somers, NY 10589
Produced in the United States of America
10-2005
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