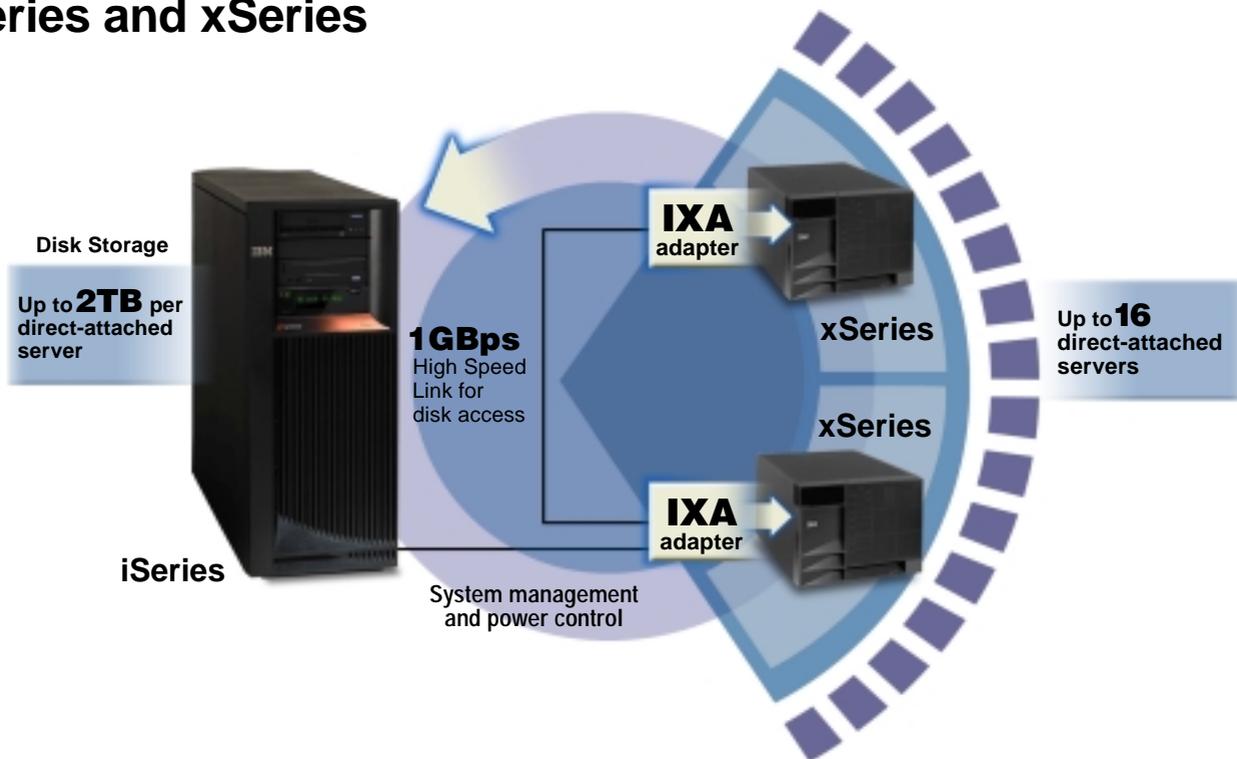


The power of IBM @server iSeries and xSeries



Highlights

- **Up to 16 4-way IBM @server xSeries servers running Microsoft® Windows® 2000 Server can be consolidated on a single IBM @server iSeries. Managing multiple Windows 2000 servers from a single iSeries server can help reduce IT infrastructure costs.**
- **iSeries servers improve xSeries use with advanced server, storage and user management.**
- **The Integrated xSeries Adapter for iSeries enables direct high-speed connection of an xSeries server to an iSeries server.**
- **Solutions that leverage OS/400® and Windows 2000 are simpler to deploy with the Integrated xSeries Adapter.**
- **Gain confidence in your Windows 2000 Intel® processor-based xSeries servers based on the IBM X-architecture design blueprint.**

Innovative integration

The Integrated xSeries Adapter (IXA) is a unique product that directly connects a 4-way xSeries server to an iSeries server. The servers are connected via a High Speed Link that has a rated speed of 1GBps. Through the IXA, iSeries improves your use of Windows 2000 servers by leveraging the storage consolidation and data protection advantages of iSeries servers, and by integrating user and server management. This IBM @server solution can help you reduce the costs associated with managing Windows 2000 servers.

Key benefits

Server consolidation

One iSeries can attach up to 16 xSeries servers, depending on the iSeries model. With the IXA, all disk storage for the xSeries servers—up to 2TB¹ per server—is contained in the iSeries servers. Storage Area Network facilities provided by iSeries servers provide a simple and cost-effective alternative to server farms.

The IXA is for local consolidation of xSeries servers and storage, plus centralized management of iSeries and xSeries servers in distributed offices. The IXA improves central control and remote operations by enabling essential tasks to be performed from a single management console. It is true server consolidation that gives you the best of both servers and provides the flexibility you require to run the best applications for your business needs.

Complementary applications

Some software providers, such as JD Edwards® and Siebel® Systems, deliver applications that leverage multiple platforms². With these complementary applications, OS/400 and Windows 2000 server environments are required to support the solution. The IXA provides an excellent vehicle to deploy these applications by offering an integrated @server solution supported by IBM.

Integrates xSeries and iSeries servers

The Integrated xSeries Adapter is a PCI card that is installed in each xSeries Model 250, select models of x350³ or Netfinity® Models 7100 and 7600. The Adapter connects to iSeries Models 270, 820, 830 and 840 via the High Speed Link. The IXA allows you to leverage the power of 4-way xSeries servers, while managing them from a single system with consolidated storage of up to 2TB of disk per xSeries server.

iSeries servers can support two standalone xSeries servers on iSeries Model 270, four servers on iSeries Model 820, eight servers on iSeries Model 830 or as many as 16 servers on iSeries Model 840. The xSeries servers have their own processors, adapters and memory, but share disks—and disk management—with the iSeries server.

Exceptional storage management

With the Integrated xSeries Adapter, iSeries servers' superior storage management capabilities are made available to xSeries servers by creating a Storage Area Network. iSeries servers' disk storage is allocated to the xSeries server by creating a storage space object or virtual disk space from the iSeries pool of disk resources. Up to 32 storage spaces can be created and linked to each direct-attached xSeries server via the IXA. Each storage space can be between 1MB and 64GB, for a maximum of up to

2TB per server. Multiple storage spaces can be linked together in a volume set using the Windows disk administrator utility.

Disks can be dynamically added to the xSeries server. By using iSeries disks, Windows server files are protected by the iSeries RAID-5 and backed up with OS/400 storage management facilities.

High-availability with hot spare technology

With the Integrated xSeries Adapter, the Windows server objects and disks stored on the iSeries server are linked at vary on (boot) time to the xSeries server. This flexible hardware linking is the base for the hot spare capability of the iSeries Windows server integration offerings. If the directly attached xSeries server hardware fails, it is simple to switch the Windows server description to boot on another xSeries server connected to the same iSeries server. No reconfiguration of Windows objects is required.

With iSeries Windows server integration offerings, one server can provide hot spare backup to a number of servers. The hot spare server can be a standby server or can be running a workload that is non-critical. In this environment, if a production server failed, the non-critical work on the hot spare server would be stopped, and the hot spare server would be linked to the storage spaces of the production server and rebooted. iSeries hot spare servers can offer protection from planned and unplanned outages of the directly attached xSeries servers.

Helps reduce LAN administration and operations costs

User administration integration enables OS/400 users and groups to be enrolled on a Windows server or a domain and for user passwords to be synchronized. This feature reduces the overhead of maintaining two separate administration systems for OS/400 and Windows 2000 operating systems.

When you create an OS/400 user, you can add the user to a group that is predefined to propagate users to the Windows server. The user is then created on the Windows server using a predefined template, to allocate the correct security rights and user preferences. Once OS/400 users are enrolled, their password changes are passed automatically to the Windows server.

Proven application solutions

The xSeries server is an IBM ServerProven^{®4} platform on which software vendors can validate their applications, helping to accelerate the time it takes to get the applications into production. Many of the complementary applications available for the xSeries server are also ServerProven. The Integrated xSeries Adapter is a ServerProven hardware adapter.

Graphical management

Operations Navigator, the graphical user interface for iSeries servers, provides support for iSeries Windows 2000 server integration offerings. With Operations Navigator, administrators can start and stop the xSeries servers, enroll OS/400 users to an xSeries server and perform storage management tasks such as defining a new storage space for an xSeries server. With Operations Navigator support, it is easier to manage your Windows 2000-based servers than ever before.

Pervasive computing

iSeries Management Central Pervasive allows administrators to monitor, start and stop, and run Windows commands for direct-attached xSeries servers from a cell phone, Personal Digital Assistant or Web browsers.

Central management for branch offices

iSeries can improve server management for branch offices that require iSeries and xSeries-based applications. iSeries operators in a central location can view Windows 2000 messages, restart, and even dynamically allocate disk storage to remote xSeries servers without shutting them down. If your xSeries server fails, a simple switch to a hot spare xSeries server can be made without reinstalling

Windows 2000. iSeries disk drives with RAID-5 and mirroring options can improve uptime and offer simple business recovery protection with backup of the combined iSeries and xSeries servers.

Integrated xSeries Adapter

- *64-bit, 66MHz PCI Adapter*
- *Installed in select xSeries Model 350³ and 250 servers and Netfinity Model 7100 and 7600*
- *Uses High Speed Link cables with a rated speed of 1GBps—10 times faster than fibre channel—to connect to iSeries server*
- *Supported on iSeries Models 270, 820, 830 and 840 with OS/400 Version 5 Release 1*
- *Supports Windows 2000 Server or Windows 2000 Advanced Server*

The power of IBM @server

The IBM @server initiative is much more than a server brand. IBM is responding to the unprecedented demands being made on infrastructures—in terms of both workload and user expectations. We are combining the strengths of IBM hardware, software, financing and services, along with the strengths of our Business Partners, to provide customers with new ways to build, manage and sustain e-business infrastructures.



© Copyright IBM Corporation 2001

IBM Server Group
3039 Cornwallis Road
Research Triangle Park, NC 27709

Published in the United States of America
5-01
All Rights Reserved

Need more information?

World Wide Web

ibm.com/eserver/series/windows
integration

Contact your IBM marketing representative
or IBM Business Partner

¹ TB equals one trillion bytes when referring to storage capacity, GB equals one billion bytes when referring to storage capacity; accessible capacity may be less.

² IBM makes no representations or warranties regarding non-IBM products. Warranty, service and support for these products are provided by third parties, not IBM.

³ For a list of the x350 servers supported by the Integrated xSeries Adapter, please see **ibm.com**/eserver/series/windowsintegration/x350alert.html.

⁴ IBM makes no representations or warranties, either express or implied, regarding non-IBM products and services that are ServerProven, including the implied warranties of merchantability (or conditions) and fitness for a particular purpose. These products are offered and warranted solely by third parties.

IBM reserves the right to change specifications or other product information without notice. This publication could include technical inaccuracies or typographical errors. References herein to IBM products and services do not imply that IBM intends to make them available in other countries. IBM PROVIDES THIS PUBLICATIONS "AS IS" WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESS OR IMPLIED, INCLUDING THE IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. SOME JURISDICTIONS DO NOT ALLOW DISCLAIMER OF EXPRESS OR IMPLIED WARRANTIES IN CERTAIN TRANSACTIONS; THERE THIS DISCLAIMER MAY NOT APPLY TO YOU. Consult your local IBM business contact for information on the products, features and services available in your area.

IBM, the IBM logo, the e-business logo, Netfinity, iSeries, OS/400, ServerProven and xSeries are trademarks of IBM Corporation in the United States, other countries, or both.

Intel and Pentium are registered trademarks of Intel Corporation in the United States, other countries, or both.

Microsoft, Windows, Windows NT and the Windows logo are trademarks of Microsoft Corporation in the United States, other countries, or both.

Other company, product and service names may be trademarks or service marks of others.

Information concerning non-IBM products was obtained from the suppliers of their products and does not constitute an endorsement of such products by IBM. Questions on the capabilities of the non-IBM products should be addressed to the suppliers.



Printed on recycled paper containing 10% recovered post-consumer fiber.



G520-9580-00