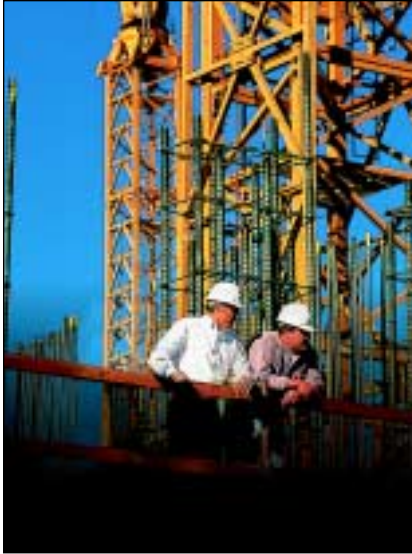


## IBM helps Perini Building Company cement a competitive advantage




---

### Overview

---

#### ■ **The Challenge**

*Replace generic clone servers with a stable, flexible hardware platform that will increase system uptime*

#### ■ **The Solution**

*IBM @server xSeries 220 servers running Novell NetWare®, Novell GroupWise® and Novell BorderManager®*

#### ■ **The Benefit**

*Improved productivity to drive new business*

#### **A solid foundation**

Perini Building Company (PBC)—one of three operating units of the Perini Corporation—has been in the construction business for more than 100 years. By consistently capitalizing on new technology, the company has gained a solid reputation for building quality hotels, casinos and other large-scale projects. “Unlike much of the construction industry—which is typically slow to embrace new technology—we’re close to the cutting edge,” says Chris Payne, manager of information technology (IT) at PBC.

Although the company was using a robust software package, Payne realized that reliability problems related to PBC’s group of approximately 30 clone servers were preventing the company from using the software to its full potential. Unplanned downtime significantly affected PBC’s Phoenix headquarters and had even more negative effects at its remote sites.

#### **Using the best materials**

PBC chose to consolidate its hardware systems onto IBM @server xSeries 220 servers featuring extended memory capacity ranging from 384MB to more than 700MB. At its Phoenix headquarters, PBC is using an IBM EXP300 Storage Expansion Unit that simplifies the addition and management of external hard disk storage. The EXP300 has the capacity to handle 14 hard drives and offers redundant power supplies for system reliability.

For added stability and reliability, PBC uses IBM redundant array of independent disks (RAID) 5E, an IBM enhancement of RAID 5 that provides a performance improvement for smaller arrays. ServeRAID™-4L and ServeRAID-4M controllers provide powerful RAID management. “Although I don’t expect any problems with the IBM drives, two of them could fail and our operations would proceed as though nothing had happened,” says Payne. “You can simply plug in new drives and the system rebuilds itself.”

Novell Net Services software—including NetWare, GroupWise and BorderManager—is also running on the x220 servers. The NetWare operating system and GroupWise messaging system combine to enable PBC's mobile employees to remotely access their e-mail, calendars, address book and other productivity applications. BorderManager protects sensitive data and manages user access to Internet content.

#### **Built for results**

The high availability of the x220 servers has helped PBC get the most out of the Novell technology—and capitalize on new business opportunities. PBC's preconstruction department, which evaluates new projects, was feeling the effects of system downtime and limited memory capacity. The increased system stability allows the department to consistently meet tight deadlines, and the expanded data storage gives it the ability to handle memory-sapping images of blueprints and other drawings.

PBC has also been able to restart stalled IT projects. "There were several projects that promised to give us a competitive advantage once they were implemented, but we weren't able to work on them because we were spending so much time on the servers," says Payne. "Since we installed the x220 servers, we've been able to pick up the pace considerably.

*"Perini Building Company employees are hard-working, dedicated professionals who deserve the best technology. I firmly believe that with the combination of IBM and Novell, we have taken a big step towards providing that."*

*—Chris Payne, manager of information technology, Perini Building Company*

#### **For more information**

To learn more about this solution, visit the following Web sites:

**[ibm.com/eserver/xseries](http://ibm.com/eserver/xseries)**

[www.perini.com](http://www.perini.com)



© Copyright IBM Corporation 2001

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

Printed in the United States of America  
06-01  
All Rights Reserved

IBM, the IBM logo, the e-business logo, ServeRAID and xSeries are trademarks or registered trademarks of International Business Machines Corporation in the United States, other countries, or both.

BorderManager, GroupWise and NetWare are trademarks of Novell, Inc. in the United States, other countries, or both.

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

This customer story is based on information provided by Perini Building Company and illustrates how one organization uses IBM products. Many factors may have contributed to the results and benefits described; IBM does not guarantee comparable results elsewhere.

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 all countries. IBM PROVIDES THIS PUBLICATION 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, therefore this disclaimer may not apply to you.

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