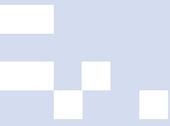




eLiza: Building an intelligent infrastructure for e-business.

Technology for a self-managing server environment



Yesterday's fantasies are today's necessities



Your information technology (IT) environment is dynamic and ever changing. Along with unpredictable business demands—new users, new applications, new workloads—comes the challenge of adding new, hard-to-fit pieces into an already complicated IT puzzle. And with workloads becoming more and more data intensive, it's clear that your infrastructure needs to do more than process data faster—it also needs to be smarter.

These conditions are accelerating the idea of self-managing, electronic “intelligence” from the subject of science-fiction novels to a real-world business priority. The IBM eLiza project is proof. An IBM @server initiative, eLiza strives to make your e-business infrastructure an autonomous, self-managing system. eLiza extends the IBM @server platform to help:

- *Provide resource management and automation capabilities*
- *Configure your system on the fly*
- *Repair problems online*
- *Defend against unauthorized access*

Innovative eLiza technology is embedded across IBM @server xSeries™, IBM @server iSeries™, IBM @server pSeries™ and IBM @server zSeries™ servers.

eLiza is more than just a vision for the future—
our **customers** are already seeing the results.

*“We had a number of issues we were **dealing** with: multiple clients,
multiple processes and the necessity for 24x7 availability.
We found a solution for all of those **issues** in IBM @server iSeries and eLiza technology.”*

—David M. Howard, President and CEO, IMSG

Well-being in a self-help box

Insurance Management Solutions Group (IMSG) offers business process and e-commerce outsourcing to keep many of the largest U.S. insurance carriers on the leading edge of their industry. To stay ahead of its own competitors, the company realized that it needed to rapidly Web-enable its quoting, policy management and reporting applications. IMSG also needed to ensure these applications would be available virtually 24x7.

IBM provided an end-to-end solution, including iSeries servers, IBM WebSphere® Application Server and IBM DB2® Universal Database™. Self-optimizing technology included in the IBM eLiza initiative helps ensure that this solution meets IMSG's requirements for nearly continuous uptime. iSeries logical partitions (LPARs) will spread the company's applications and dynamically allocate resources throughout the system to achieve high levels of availability and redundancy.

The self-optimizing eLiza technology used by IMSG includes:

- Logical partitioning—combines with self-healing clustering technology to remove the physical limits of a single server.

Additional self-optimizing eLiza technology:

- Self-managing performance—offers the choice of manual or completely automated server monitoring and management services.
- Intelligent Resource Director (IRD)—allows dynamic resource allocation on zSeries servers.





Brainy building blocks

When Sea Island needed to implement new Microsoft® Windows®-based applications to enhance its customer service capabilities, the world-class residential and resort destination turned to a proven partner for help. IBM established a robust, integrated environment of iSeries and xSeries servers and Integrated xSeries Adapters (IXAs) that make it easy for staff to manage the growing IT system.

The self-configuring characteristics of the underlying eLiza technology also help preserve the resort's investment in its existing systems. IBM IXAs extend automated systems management within the iSeries to the xSeries environment, allowing the resort to implement Windows-based applications while capitalizing on the storage, system and user-management capabilities of the iSeries. Backup and restarting is also done without human intervention.

The self-configuring eLiza technology used by Sea Island includes:

- Integrated xSeries Adapters for iSeries—includes hot spare support, dynamic storage management and high performance backup and recovery.

Additional self-configuring eLiza technology:

- Plug and Play—allows for the dynamic addition or deletion of processors, storage and input/output (I/O) devices.
- Capacity Upgrade on Demand—provides instant access to additional processors or servers.
- Setup Wizards—enable self-installation capabilities in servers and software.
- Wireless Systems Management—makes possible “anytime, anyplace” server management via wireless devices.

An automatic spoonful of sugar

Memphis City Schools, the twentieth-largest metropolitan school system in the nation, used IBM xSeries servers to consolidate approximately 180 servers into a single location. The new environment is easy to run and helps the district provide its users with the best possible educational experience.

The IBM @server environment also features self-healing eLiza technology to help the district's IT team avoid system failure. These powerful tools, including IBM Director and Light Path Diagnostics™, also help the district reach its goal of 100-percent uptime by streamlining and automating management and support tasks. IT personnel are now able to troubleshoot systems before they become critical.

The self-healing eLiza technology used by Memphis City Schools includes:

- Chipkill™ memory—recognizes memory failures and helps provide automatic problem detection, disablement and problem resolution without any server downtime.
- Clustering—enables high availability and enhanced scalability. Blue Hammer and Parallel Sysplex are features supported today on pSeries and zSeries. Opticonnect is featured in iSeries and clustering services are available for xSeries.

Additional self-healing eLiza technology:

- Call home—provides the ability to request service before or after a failure without human intervention.
- ECC Cache—detects and corrects errors within the storage hierarchy.
- Multipath I/O—gives your server(s) a variety of routes to reach information stored within the system and maintain overall system availability.



“A part of ‘intelligence’ is the ability to **interact** in a structured manner with your surroundings.
eLiza and IBM provide the global framework that allows us to securely and
efficiently integrate, manage and run distributed or even heterogeneous systems.”

—Claus Jensen, Senior IT Architect, Danske Bank

A virtual black belt in self defense

Serving global banking customers through widespread operations, Danske Bank recognized that a secure, efficient and available IT environment goes a long way in retaining existing customers and attracting new ones.

An IBM **@server** environment with zSeries and pSeries servers helped Danske Bank establish an effective “one user, one identity” security strategy. Easing the verification and authentication workload for Danske Bank’s IT personnel is self-protecting eLiza technology, including Secure Sockets Layer (SSL), Remote Access Control Facility (RACF) and digital signature. Danske Bank employs a home-grown single signon solution leveraging the zSeries coupling facility, and plans to adopt IBM single signon and Lightweight Directory Access Protocol (LDAP) tools in the near future.

The self-protecting eLiza technology used by Danske Bank includes:

- SSL—manages Internet transmission security.
- Digital Certificates—provide identity authentication.
- Encryption—helps to prevent unauthorized use of data.
- RACF—limits remote system access to authorized users.

Additional self-protecting eLiza technology:

- Single signon—permits access to multiple applications with one user name and password.
- LDAP—aids in the location of network resources.
- Kerberos—authenticates requests for service in a network.

IBM and eLiza help you get the most out of your IT

Admit it, you talk to computers. It’s O.K., everybody does. Most of these conversations, unfortunately, are not only one-sided but probably happen under unhappy circumstances. IBM technology, however, is helping to turn this around. Across the globe, businesses are making their infrastructure smarter and easier to manage by building on their existing IT platforms with IBM **@server** systems and eLiza technology. In the complex and constantly evolving world of e-business, information is your most valuable asset. IBM can help you get the most out of it.

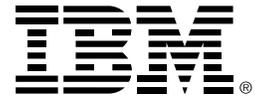
For more information

To learn more about the IBM **@server** platform, visit:

ibm.com/eserver/

To learn more about the eLiza initiative, visit:

ibm.com/servers/eliza



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IBM @server systems are assembled in Australia, Brazil, Great Britain, Japan and the U.S. and comprise U.S. and non-U.S. components.

