Jack Henry & Associates PPS achieves world-class payments processing

Speeding through two billion transactions annually with reliable IBM technology

Overview

The need
Facing continued growth and increasing availability demands in its payments processing environment, Jack Henry & Associates requires robust, high-performance, high-availability servers and storage.

The solution
Working with its trusted IBM Business Partner PSR, the company continues to invest in its dual-site IBM® System z® infrastructure, which includes IBM System Storage® DS8800 and TS7740 systems.

The benefit
Near-continuous availability, and simple, fully automated disaster recovery within one hour; robust servers process more than two billion transactions annually; hardware can be upgraded non-disruptively.

Payment Processing Solutions (PPS) is one of many lines of business that constitute Jack Henry & Associates, Inc. Founded in 1976 as a provider of core information processing solutions for community banks the corporation's extensive array of products and services are processing transactions, automating business processes, and managing mission-critical information for more than 11,200 financial institutions and corporate entities. Jack Henry & Associates employs more than 4,400 associates and delivers its products and services through three business units: Jack Henry Banking, Symitar and ProfitStars.

For more than ten years, the Jack Henry & Associates PPS line of business has relied on IBM System z servers to support its payments processing services. These services provide fulfillment for ATM, credit card, and debit card transactions. Today, the company handles more than two billion transactions per year on the IBM mainframe platform, supporting approximately 1,000 different financial institutions.

John Postle, General Manager for Payment Processing Solutions, explains the key reasons for investing in IBM System z as the strategic platform for payments processing at Jack Henry & Associates: "It really comes down to the classic advantages: the reliability, availability and serviceability of the IBM System z platform. Given the importance and value of the services we're running on the mainframe, the benefits of being able to keep those services running without disruption cannot be overstated."

Planning for growth

More than ten years ago, Jack Henry & Associates was using a distributed platform to run its payments processing. The server farm was rapidly growing in size and complexity as business volumes increased, putting pressure on the availability of physical space, power and cooling in the data center, and making it difficult to ensure reliability.

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—Larry Fitch, Data Center Operations
Senior Manager, Jack Henry & Associates

"At that time, the business wanted to make sure it was on a platform that could scale efficiently and meet future availability requirements," says Larry Fitch, Data Center Operations Senior Manager. "On the understanding that the business was going to grow, IBM System z was chosen as the highest availability platform."

World-class availability

Today, Jack Henry & Associates has two IBM System z10® servers in its production data center in Houston, TX, and a third z10 server on standby as a disaster recovery option in its backup data center in Allen, TX. The company recently upgraded its mainframe storage environment, consolidating multiple DS8100 systems into a IBM System Storage DS8800 in each data center, with all data synchronously replicated using IBM z/OS® Global Mirror (XRC). In each data center, using an IBM System Storage TS7740 with 128 virtual drives accelerates backup and recovery operations, helping to ensure high availability.

Jack Henry & Associates uses IBM GDPS®, which provides an automated, end-to-end disaster recovery solution. This includes the automatic initiation of the Capacity Backup (CBU) processors on the standby z10 server in the event of an unplanned outage in the production data center. GDPS ensures that the organization can restart core payments processing systems within 30 to 60 minutes of the loss of its main data center.

"In our current environment, the recovery point objective (RPO) is effectively zero, so we lose no data whatsoever in the event of a failure at our production site," says Postle. "Our recovery time objective (RTO) is under one hour, so the potential disruption to our clients in the event of a major disaster is extremely limited. Even so, we always want to do better, and we are planning to adopt an active-active configuration, which will reduce the RTO to zero also."

In the active-active scenario, payments processing workload would be balanced across both data centers, each of which would be actively involved in the processing and ready to absorb the other site's workload in the event of a disaster. The investments that Jack Henry & Associates is making in System z and GDPS—technologies more commonly associated with global Tier 1 financial institutions - amply demonstrate its commitment to excellence and its ambitions to provide its clients with a truly world-class service.

Solution components

Hardware
- IBM® System z10®
- IBM System Storage® DS8800
- IBM System Storage TS3500 Tape Library
- IBM System Storage TS7740 Virtualization Engine

Software
- IBM z/OS®
- IBM z/OS Global Mirror
- IBM GDPS®

IBM Business Partner
- PSR

"Working with PSR and IBM, we're making the right investments to keep our payments processing infrastructure on the same level as those of the largest financial institutions in the country."

—John Postle, General Manager for Payment Processing Solutions, Jack Henry & Associates

Reliable partnership

Since acquiring its first IBM System z, the payments processing business at Jack Henry & Associates has expanded significantly—both through organic growth (particularly in debit card payments) and through a major corporate acquisition in the credit union space. The company has also moved its production data center, and both created and relocated its backup data center. Throughout all this disruption, and numerous hardware and software upgrades, the System z platform has continued to work faultlessly.

"Almost all of our upgrades and changes have taken place within our weekly two-hour maintenance window - which has meant minimal disruption to business operations," says Fitch. "We attribute this partly to the simplicity of the mainframe environment, where pretty much everything we need is in a single box, including on-board cryptographic processing. The other factor behind our continued smooth running throughout this period of rapid growth is our IBM Business Partner, PSR."

PSR has advised Jack Henry & Associates almost from the start of its System z experience, and has helped the company successfully upgrade and develop its landscape over the years.

Postle says, "A key success factor for me is having trusted partners in PSR and IBM. PSR knows that we need a reliable, scalable platform, and they work with us to minimize any downtime and to anticipate our future requirements."

Fitch adds, "Our entire System z solution is sourced from PSR. The relationship we have with them is unique for our company in terms of its longevity and their excellent understanding of our business. On their side, it's the same consultants that we work with year after year, and that helps bring real stability and quality to our infrastructure."

Making the right investments

With its current mainframe environment, Jack Henry & Associates is ahead of the curve, but remains vigilant for any likely spikes in processing volumes.

"Working with PSR and IBM, we're making the right investments to keep our payments processing infrastructure on the same level as those of the largest financial institutions in the country," says Postle. "Combined with our 'do what it takes' attitude to client service, we're confident that our IBM System z infrastructure gives us a unique competitive edge."

For more information

To learn more about IBM System z, please contact your
IBM representative or IBM Business Partner, or visit the following website:
ibm.com/systems/z