Food retailer manages holiday overload with HP 3PAR Storage

HoneyBaked Ham of Georgia sees up to 10x improved performance in transactional data and reporting systems with HP 3PAR Storage

HONEYBAKED

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HP customer case study
HP 3PAR F400 Storage system

Industry
Retail

Objective

Replace aging storage system to increase performance during peak retail hours to help inform better management decisions at retail locations

Approach

Evaluate storage systems from Dell, EMC, NetApp, and HP to determine which solution offers the best scalability and performance to handle transactional data systems

IT improvements

- Up to 10x performance in handling transactional data, queries, and reporting
- Decrease lag time for data from hours down to a few minutes
- Consolidated storage infrastructure makes data easier to locate
- "At-a-glance" management console eases administration

Business benefits

- Enable better decisions by providing real-time transactional data to retail store managers
- Provide capacity to meet demands of growing business

Outsourcing the holiday ham

These days, many busy Americans approach the popular holidays of Thanksgiving, Christmas, and Easter with a combination of excitement and dread. On the excitement side is the opportunity to observe the holidays with family and friends. On the dread side is the obligation to spend hours in the kitchen cooking a large meal that people consume within minutes and leaves a big mess to clean up.

Enter the HoneyBaked Ham Company of Georgia. Walk into one of the company's 300 locations on the days preceding any major holiday, and you'll see a crowd of shoppers happily purchasing HoneyBaked's famous glazed, spiral-sliced ham; their whole smoked, roasted, or Cajun turkeys; and mouth-watering side dishes such as garlic mashed potatoes, sweet potato soufflé, or green bean casserole. With the swipe of a credit card, people can avoid all the muss and fuss and provide a delicious holiday meal to enjoy with loved ones.

A different kind of holiday overload

HoneyBaked sells its hams and turkeys and side dishes—in addition to sandwiches and desserts—all year round, but no time is as busy for the business as the holidays. "Our business really peaks about three times a year, and our busiest day is typically about 1,000 times busier than a normal day," explains Kevin Madsen, senior infrastructure director at HoneyBaked Ham of Georgia.

The company develops its own point-of-sale (POS) and inventory systems for its stores. Those applications, along with file systems and other business applications such as Microsoft® Exchange Server 2010, run on HP ProLiant DL360 servers. The servers are all virtualized using VMware vSphere 5 and running the Microsoft Windows® 2008 R2 operating system. To store its POS, inventory, and business data, HoneyBaked relied on direct attached storage (DAS).

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Especially during the holidays, regional directors and managers at HoneyBaked's retail locations rely on reports of transactional data throughout the business day to make decisions about inventory and labor. The company relied on two HP ProLiant DL580 servers running Microsoft SQL Server 2005 to run the data and produce reports. The database servers were attached to an aging Hitachi AMS200 storage system that was beginning to show performance issues. "Last year we started to see a lag of three or four hours," says Madsen. "The stores were losing sight of where they were in terms of production and sales throughout the day because they were relying on stale data, which made it difficult for them to make decisions."

Taste test for a new solution

HoneyBaked realized it could not face another holiday retail season without replacing its storage system. The company wanted a solution that could provide the I/O required by its transactional systems in addition to the capacity to handle archived data from its other business applications. "We wanted a storage system that would enable us to add another shelf of drives every year to increase performance and capacity, but wouldn't require a lot of extra work," explains Madsen. "We're a very small IT department, just me and one other person who handle the entire infrastructure above desktops."

After considering solutions from EMC, NetApp, Dell, and HP, HoneyBaked narrowed its selection to an HP 3PAR Storage System or the Dell Compellent storage system. "We liked the fact that both systems offered us the ability to segregate our data loads," says Madsen. "We didn't want someone doing a search in Microsoft Exchange to affect our transactional data, especially during the busy holidays."

In the end, the HP 3PAR solution prevailed. "The HP 3PAR does everything through hardware, and the Dell solution does everything through software," says Madsen. "We believed that by doing everything through hardware the HP 3PAR offered us a significant speed increase. We also believed the chance for bugs was significantly less, because we know HP is going to put a lot of development and testing into making sure the hardware works flawlessly over time before spinning up a production line."

Recipe for successful storage

Working through HP partner VeriStor, HoneyBaked deployed an HP 3PAR F400 Storage system with two controllers, 48 Fibre Channel 15k 600 GB disks, and 16 nearline 1 TB disks. HoneyBaked replaced both its Hitachi AMS200 and all of its DAS with the HP 3PAR F400, which means all of its data is now centralized. "The Hitachi only handled our transactional data, but we have the HP 3PAR doing much more," says Madsen. "In addition to all of our SQL data, it handles our Exchange and VMware data in addition to our file stores. I no longer have to worry about what data is where because I can easily connect the 3PAR to anything in our infrastructure." HoneyBaked is keeping all of the transactional data on RAID 5 on the Fibre Channel disks, and the less critical data including on RAID 6 on the nearline disks.

During the busy holiday season, HoneyBaked plans to use HP 3PAR Dynamic Optimization to rebalance storage volumes to ensure optimal volume distribution and continuous performance. HoneyBaked is also using HP 3PAR Thin Provisioning to manage file store data on one of its nearline volumes.

Provisioning in a single course

To deploy the HP 3PAR Storage system, HoneyBaked received support from HP Deployment and HP Technology Services. "One group from HP came in and installed the physical hardware, and then a Technology Services attached the system to a couple of our VMware servers, a file server, and a test SQL Server to show us how to connect everything," explains Madsen. "They were scheduled for a full day, but we kicked them out before lunch because it was so simple to do everything. Four or five hours were all we needed to understand how everything worked."

Up to 10x performance provides real-time data

Although both the Dell Compellent and the HP 3PAR Storage systems provide the ability to segregate data, HoneyBaked quickly realized that the 3PAR F400 offered far more control—which would help to ensure performance. "On the 3PAR F400, I can actually specify how the traffic flows, so I can ensure that nothing affects transactional data," says Madsen. "With the Dell solution, we wouldn't have a lot of control where things went."

With the 3PAR F400 Storage solution as part of its infrastructure, HoneyBaked has experienced the significant performance increases it expected. "Since we deployed the 3PAR F400, we are seeing between a 5- and 10-fold performance increase on all our regular SQL Server jobs, queries, and data loads," says Madsen.

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Kevin Madsen, Senior Infrastructure Director, HoneyBaked Ham of Georgia

Madsen believes the performance increase HoneyBaked is seeing today will carry over to the holidays. "In the past, we saw data lags up to 12 hours," says Madsen. "With the HP 3PAR solution, we expect to provide transactional data to our retail stores in less than two minutes."

"At-a-glance" management console eases administration

To manage its 3PAR F400 Storage system, HoneyBaked uses the HP InForm Management Console, which simplifies storage management by providing everything the company needs to administer and optimize its storage solution through a single application. "The 3PAR F400 management is much easier than what we experienced with our Hitachi storage system," says Madsen. "With the 3PAR InForm Management Console, I can quickly view IOPS by disk, so I can easily view and rule out any issues with the 3PAR storage when we encounter performance issues."

Provides greater capacity for future growth

With the 3PAR F400 Storage solution, HoneyBaked has plenty of room to scale to meet demand as it continues to add new stores and attract new customers. "We actually just ordered a new cage of drives including 12 Fibre Channel and four nearline," says Madsen.

He continues, "We plan to add at least one tray of disks to every year. We expect to stay on the 3PAR F400 for at least six years, because we can keep adding disks to provide capacity and performance, and we can still add two more controllers. Knowing that we have that room to grow is reassuring."

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