

# The Anthony Marano Company



## Chicago's Largest Independent Food Distributor Standardizes on Fujitsu PRIMEQUEST® and PRIMERGY® Servers and ETERNUS® Storage for Mainframe Reliability and Redundancy

### **Challenge:**

Automating front office operations with a custom real-time inventory control and management application required a reliable and highly redundant infrastructure to ensure 99.999% system availability around the clock.

### **Solution:**

A Fujitsu PRIMEQUEST 540 enterprise class server runs mission critical applications including real-time inventory management, a Microsoft SQL Server 2005 database, file services, Microsoft SQL Server 2005 reporting services, and Microsoft Dynamics financial management software. Two PRIMERGY RX300 S3 servers run Microsoft Exchange 2007 and the control systems for the PRIMEQUEST 540 server. Anthony Marano is also using the ETERNUS4000 Model 300 as its Storage Area Network (SAN) solution.

### **Benefits:**

By migrating to the Fujitsu platform, Anthony Marano has gone from 95 percent system availability to 99.999 percent availability. The system mirror and partitioning capabilities of the PRIMEQUEST 540 server have delivered unprecedented reliability and redundancy, reducing costly downtime. Anthony Marano has also achieved 100 percent performance improvements on all back office applications, doubled the speed of data access, and has been able to extend the historical pricing window from two weeks to four weeks.

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– **Chris Nowak, Chief Technology Officer,  
The Anthony Marano Company**



Anthony Marano's state-of-the-art warehouse stores more than 1,400 products from around the world.



In 1950, Anthony and Josephine Marano founded The Anthony Marano Company, a wholesale distributor of fresh produce serving Chicago and the Upper Midwest. At the helm of the company for most of his life, Marano has seen six children and a third generation of grandchildren join the company—all dedicated to the family's commitment of service excellence. Though rooted in family tradition, the company has eagerly embraced technology to meet the changing needs of its retail, food service, and wholesale customers. Turning vision into reality, Anthony Marano has built a state-of-the-art technology infrastructure using Fujitsu server and storage solutions that has set the company apart from its competition.

### **Real-time Inventory Management Sets Anthony Marano Apart**

Open seven days a week, 360 days a year and with annual sales of over \$200 million, Anthony Marano has built a cutting edge facility to efficiently move more than one million cases of fresh produce in and out of the building each month. But success has not come without its challenges. The logistics surrounding the perishable agricultural commodity business are very complex. In fact, 70 to 80 percent of Anthony Marano's 2,000 to 3,000 daily orders need to be picked, packed, and shipped within hours. And with more than 1,400 products from around the world in the warehouse at any given time, each with varying shelf lives and storage needs, inventory management and product pricing are complicated to say the least.

To address these challenges, Anthony Marano automated its paper-based front office operations with a customized real-time inventory management application that was built using the Microsoft.NET framework, which runs on a Microsoft SQL Server™ 2005 database and is seamlessly integrated into the company's Microsoft Dynamics™ financial management software. “With a real-time view of inventory, our sales staff can be very authoritative regarding produce availability and pricing, and customer or supplier commitments,” explains Chris Nowak, chief technology officer at Anthony Marano.

Up-to-the-minute access to inventory data sets Anthony Marano apart from the competition, many of whom do not have the infrastructure to support real-time inventory control. “Real-time knowledge of our inventory helps us respond to our customers' needs faster than the competition, and boosts our reputation as a distributor our customers can count on,” Nowak adds. Real-time inventory management also enables Anthony Marano to price more effectively, a major advantage in a business where pricing varies from customer to customer depending on requirements, volume, the nature of the relationship, and market fluctuation.

### **Complex Business Requires Powerful Technology**

With its new real-time inventory management application at the heart of its business, Anthony Marano required a fast and extremely reliable IT infrastructure. After a system board issue almost shut down the entire business, Nowak knew it was time to make a change in the company's IT infrastructure. “With the new real-time inventory management solution in play,

technology has become critical to the cadence of our business,” explained Nowak. “We switched to Fujitsu because we needed the highest reliability and most redundancy available in a Microsoft-supported platform.”

Anthony Marano began implementing a new IT infrastructure centered on a Fujitsu PRIMEQUEST 540 enterprise class server that runs the Microsoft Server 2003 Operating System and is optimized for the Intel® Itanium® platform. The PRIMEQUEST 540 server has two partitions. The first runs the company’s real-time inventory management software and the Microsoft SQL Server 2005 database and the second partition runs the company’s file services, Microsoft SQL Server 2005 reporting services, and Microsoft Dynamics financial management software. With a compact chassis design, the PRIMEQUEST 540 boasts a small footprint—an important selling feature for Anthony Marano. “A comparable server model from a competitor is 50 percent larger than the PRIMEQUEST, and because space is at a premium in our data center, size was a consideration for us,” explains Nowak.

The company also purchased two PRIMERGY RX300 S3 servers, with one running Microsoft Exchange 2007 and the other running the control systems for the PRIMEQUEST 540 server. Finally, Anthony Marano selected the Fujitsu ETERNUS4000 Model 300 as its Storage Area Network (SAN) solution, using it to boot the PRIMEQUEST 540 server and store approximately two Terabytes of data.

### Mainframe Reliability and Redundancy

To meet an aggressive target of 20 percent annual growth over the next two years, Anthony Marano has extended its sales day and shipping hours, which means that the window for downtime has shrunk even more. Business interruptions cost the company hundreds of thousands of dollars and prevent management from making important business decisions. “One hour of downtime costs us between \$200,000 and \$300,000 in lost sales,” comments Nowak. “System reliability and redundancy were critical requirements for the new infrastructure and thankfully, Fujitsu delivered.”

According to Nowak, the PRIMEQUEST servers are the only servers on the market today that deliver the reliability of a mainframe on a Windows®-based server. In fact, PRIMEQUEST servers incorporate the use of partitioning to allow users to isolate CPU and memory problems, significantly reducing downtime. Anthony Marano recently tested this capability when they increased the memory of its PRIMEQUEST server on a Saturday afternoon. “By isolating the partition we needed to upgrade, we were able to contain the changes with no impact on other processes,” explains Nowak. “The partitioning capabilities of the PRIMEQUEST server help us meet a key business goal: to have a system that we can keep up and running 24 x 7.”

The System Mirror hardware technology that comes with the PRIMEQUEST 540 server gives a further boost to system availability by providing fault immunity for applications. With the PRIMEQUEST 540, all cross bar and memory activity is

mirrored in real-time, with no loss of performance, providing a cost-effective way to deliver high availability and redundancy. These mirrored components allow the PRIMEQUEST hardware to transparently preserve the “known state” in the event of a transient cross bar or memory error.

The mirrored memory configurations on the PRIMERGY RX300 S3 servers also prevent system crashes by moving data away from failing memory modules before memory failure occurs. “With Fujitsu’s unique partitioning capabilities and mirrored memory, we have gone from 95 percent system availability with our previous solution to 99.999 percent availability with Fujitsu,” notes Nowak. “Providing redundancy through partitioning and mirrored memory in a hardware solution, Fujitsu delivers an incredibly elegant platform.”

### Giving Performance a Boost

By switching to the Fujitsu platform, Anthony Marano has also benefited from a major performance boost. Closely aligned with the Intel Itanium Processor Family (IPF), the PRIMEQUEST server family can offer new functionality and performance gains. The ETERNUS4000 SAN solution also adds to the platform’s superior performance and speed. Anthony Marano boots its PRIMEQUEST server directly off the SAN, which shares disk drives across different partitions, thereby delivering great performance, even on a system reboot.

The performance increase has enabled Anthony Marano to extend its historical pricing window from two weeks worth of data to four weeks, providing sales staff with access to more data to help them make important pricing decisions. “All of our back office applications including reporting capabilities and nightly posting procedures have enjoyed a 100 percent performance improvement since switching to Fujitsu,” says Nowak.

### The ETERNUS Advantage

Anthony Marano selected the ETERNUS4000 for its SAN solution because the company wanted to consolidate with one hardware vendor, and also because the ETERNUS4000 storage system offered the best of breed in the industry for performance. “Using the ETERNUS4000, data access is double the speed of our previous SAN solution,” notes Nowak, who was also impressed with the solution’s data encryption capabilities. “We plan to take advantage of data encryption next year when we build our disaster recovery solution at a separate location.” Data encryption minimizes the risk of illegal access, data theft, and falsification of confidential information, critical when data is traveling across a network.

### Simplifying Management and Support

The company decided to go with a pure hardware-based solution using Fujitsu server and storage technology to gain as much redundancy as a software-based cluster, but with far less

Fujitsu PRIMEQUEST server





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complexity. “We would have had to hire a systems administrator to manage a clustered solution, costing the company approximately \$100,000 a year in salary and benefits,” explains Nowak. “Using a hardware solution from Fujitsu, we can solve our reliability issues with excellent technology and service in a solution that is easy and cost-effective to maintain and manage.”

Nowak also really liked Fujitsu’s direct support model, which was particularly appealing because of the size and mission-critical nature of his deployment. Anthony Marano has atypical business hours, with customers sometimes arriving onsite at 2:00 a.m. to place orders and administrators working late into the night to complete invoicing, leaving just a couple of hours each day when the system is not being utilized. Because system availability is so critical, the company has opted for the Fujitsu Premium Care Service Program, which provides 24 x 7 support and guarantees a two-hour response time. “I feel like I am always working with experts, even from the first encounter,” says Nowak. “I am very impressed with the depth of local talent and Fujitsu’s commitment to delivering excellent and timely support.”

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**A Family Tradition**

Steeped in strong family values and tradition, Anthony Marano has been successful over the years because of its commitment to enhanced customer service and excellent operational efficiencies. With technology at the core of its business, Anthony Marano can rely on its Fujitsu platform for superior system performance 24 hours a day, 360 days a year. “We switched to Fujitsu because no other vendor can deliver the performance and reliability our business—and customers—demand,” says Nowak.