



## VIEWER'S CHOICE

### *NonStop system helps DIRECTV keep up with customer demand*

WHAT WOULD YOU LIKE TO WATCH tonight? Perhaps a major league baseball game or a NASCAR race? How about a movie, or the national news, or cartoons for the small fry? The History Channel and National Geographic Channel are sure to offer interesting shows, and the Food Network can help you whip up gourmet cuisine in no time.

Thanks to DIRECTV, the leading satellite provider in the United States, these and many more viewing options are available to about 16 million customers in the country. The company's astonishing breadth of programming—more than 250 channels of 100 percent digital quality—makes these customers happy. Frank Palase aims to keep them that way.

Palase is vice president of Enterprise Architecture, Process, and Integration at DIRECTV. He's a visionary, but his gaze is not directed upward at the company's sparkling fleet of geosynchronous satellites. Palase's focus, closer to home, is on the HP NonStop system that serves as the central data cache for the corporation—and on the pivotal role these servers play in ensuring superlative care for every single DIRECTV customer.

#### **CHANGE AND MORE CHANGE**

Customer care is a key differentiator in DIRECTV's increasingly competitive environment. "Telcos, cable companies, and satellite companies are all vying for the same consumer today," said Palase. "The market puts tremendous pressure

on us to generate offers quickly and handle customer requests in near real time. In this rapidly changing business, there really is no five-year plan. It's more like a three- to five-month plan, and that means the IT environment needs to be extremely responsive to changing business needs. The NonStop system helps make this possible for DIRECTV."

DIRECTV purchased its NonStop system—currently two 10-processor NonStop S78000/S76000 servers backed by two identical servers, complemented by HP StorageWorks XP disk arrays—as part of an ambitious project to update the company's monolithic billing infrastructure. At the time, "billing" covered a lot more than figuring out what people owed and collecting the money; it also

included customer relationship management (CRM) and other functions.

“The first step, and the impetus for buying the NonStop system, was to separate CRM and billing,” said Palase. “Once we had done that, we needed some way to synchronize the data—to quickly feed billing-related changes into the new Siebel CRM system for immediate use by thousands of call center agents and other customer-facing areas of the enterprise.” The solution was what Palase dubbed a “zero latency data store,” or ZLDS, logically placed between billing and CRM.

DIRECTV chose the NonStop platform for a host of reasons. “Scalable hardware and software coupled with a proven, fault-tolerant design were probably at the head of the list,” said Palase. “The application integration capability of the NonStop server was very important to us, and the ability to perform mixed workload, or simultaneous load and query, was essential. The NonStop server has lived up to its reputation. It does everything we expected—and more.”

#### SOA STEPS UP

Moving functionality out into different systems gave DIRECTV the advantages of greater scalability and flexibility, but it also presented some problems, according to Palase: “When you start looking at a real-time environment, having data in multiple locations can slow things down.” So in order to improve the customer experience, the ZLDS was extended to include “read

only” services based on the service-oriented architecture (SOA) model.

“GetProfile is a good example,” said Palase. “When the ‘edge’ systems—including directv.com, our dealer website, order management, Siebel CRM, and interactive voice response—need customer information, they send the GetProfile transaction to the NonStop server. Because we cache all the customer data in one place, we can deliver it immediately, on demand.” Results include faster transaction response times and enhanced availability of critical information across the enterprise.

“Basically, we are an SOA enterprise,” Palase continued. “GetProfile follows the SOA model. Business users do not need to understand where the data is coming from—they just request a GetProfile and they receive the information. And we continue to enhance the solution; for example, we’ve added functionality to enhance our targeted marketing efforts.” GetProfile replaced nine separate business services, significantly reducing the company’s development and maintenance costs. The composite application also speeds time to market. “If we need to make a change, we can get to market much faster now than when we had to change nine services,” said Palase.

In concert with the NonStop server, DIRECTV’S SOA implementation leverages a separately purchased SeeBeyond middleware tool. When an application wants to request data or a business function from another application, it makes the request via this middleware

and related servers, which route the request to the appropriate destination application. These routings can be changed dynamically if a service goes down, and they can be combined to create higher business functions. DIRECTV is currently testing the HP NonStop SOAP product, so the middleware can send SOAP messages directly to the NonStop system.

#### IMPROVED BUSINESS OUTCOMES

Palase’s plan for future SOA implementations is pragmatic. “We are driven by business need,” he said. “When we see that the NonStop system can satisfy a business requirement and give us a competitive advantage in the marketplace, we’ll put the application on that platform. Our strategy is to implement SOA in multiple phases, delivering benefits early and often.” In addition to GetProfile, the NonStop system hosts critical read-only services related to pay-per-view history, billing ledger, and authorization resend requests, with more to come. The system can process more than 2,000 input messages a second at peak loads from the billing system. DIRECTV also plans to implement “write” services to allow the transmission of data to the NonStop system-based data store. The company currently handles 2 million SOA transactions per day.

For DIRECTV, NonStop technology plays a key role in accelerating business growth, lowering costs, mitigating risk,

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and optimizing information to improve business outcomes. The NonStop system is a key player in the company’s multi-vendor, multiplatform SOA environment, providing fault tolerance and data integrity. Although the current NonStop system continues to meet DIRECTV’s needs, Palase already has his eye on the Intel® Itanium® 2 processor-based HP Integrity NonStop platform. “I would like to move part of the Web services

application into the NonStop system environment, as well as some critical business processes,” he said. “The improved price/performance of the Integrity NonStop server will make that evolution possible for us.”

DIRECTV is committed to differentiating itself through outstanding customer care. “The IT group can help make DIRECTV’s service more efficient—and enrich the customer experience

**FOR DIRECTV,  
NONSTOP SYSTEMS:**

Support SOA, Web services, and other business processes

Optimize information to improve business outcomes

Hasten response times for outstanding service

Ensure fault tolerance and data integrity in a multiplatform environment

—through increased use of read-only services based on the SOA model,” concluded Palase. “This is a critical area, and one in which we absolutely depend on the power, flexibility, availability, and real-time capabilities of the NonStop system.” ♦