EchoStar Communications Corporation, the parent company of DISH Network, delivers direct broadcast satellite television products and services to customers worldwide.

Challenge: EchoStar needed to relocate its primary data center because the facility had environmental and power generation limitations as well as inadequate cooling capabilities. Its vast IT infrastructure had to be moved before the middle of the busy fall season—without impacting business operations, including the call centers handling over 500,000 customers per day.

Business value: EMC Consulting Services managed the entire move using an application-centric approach and helped EchoStar achieve:

- Identification and utilization of a single resource to project manage all key vendors including HP, Sun, StorageTek, INS, Cisco, and Physical Move team
- Better communication and coordination with internal business units
- An on-time move, completed within six months
- Cost savings of $1.2 million (versus using internal resources)
- Zero unplanned downtime and no business disruption
- Elimination of downtime associated with previous heating and cooling issues
- An improved understanding of internal business and IT infrastructure to better leverage existing capabilities (e.g., optimize service levels and costs)
- Realization of technical best practices related to business continuity—enabling definition of a disaster recovery strategy.

EMC Consulting Services provide full solution
Data center relocation requires unique capabilities, comprehensive services

With over 12 million subscribers, EchoStar is the fastest growing paid television provider in the U.S. The company’s history of innovation and dramatic growth had pushed its primary data center to its limits. Inadequate cooling and power generation capabilities made it difficult to keep up with the demands of the business. Environmental factors also mandated a change of location.

“EMC knows EchoStar like our employees know EchoStar. The data center move was absolutely strategic, and EMC helped us focus on the strategy and not jump right into the tactical.”

Scott Piper, Vice President of Information Technology

EchoStar’s IT staff faced a massive data center move project involving 1,800 servers, over 300 applications, and almost one petabyte of storage. Although it had performed data center relocation projects in the past, the staff had not done anything on this scale.

“Our executives were concerned with the risk caused by moving the servers while running applications—without disrupting business,” says Scott Piper, vice president of Information Technology. “We needed an experienced vendor with an end-to-end solution at a highly competitive price.”

EchoStar also needed to accomplish the entire data center move before the middle of its busy fall season—and spring and summer were rapidly approaching.

EchoStar closely evaluated six vendors to help its IT staff move operations to a new data center 15 miles away. It ultimately chose EMC® Consulting Services which offered end-to-end project management of all IT vendors, staff augmentation, and technical expertise which included mapping systems and application interdependencies to eliminate the risk of unplanned downtime.

With extensive experience in large-scale data center moves, EMC Consulting assumed the role of planning and coordinating the entire project. One related challenge was working around all of the ongoing business activity at EchoStar.

“Every day we receive 500,000 calls, around the clock, and we had to work around that,” says Piper. “EMC did a great job helping us coordinate the project. In many cases, EMC communicated with our internal EchoStar customers so they were aware of every detail around any planned downtime during the move.”

The EMC Consulting Project Management Office assumed the management role for the entire project.

“We are a full-service data center and probably use a dozen vendors other than EMC,” says Piper. “EMC managed these entities in terms of contracts, on- and off-boarding, payment, and so on, which added tremendous value and made the project go smoothly.”

Another challenge was minimizing downtime across the business and to key applications, including Oracle ERP, HR, Financials, and CRM. EMC Consulting’s unique approach used tools to identify the interdependencies of applications and systems. In EchoStar’s middleware environment, which uses BEA Systems’ Weblogics, for example, many components were added to the application as the business grew.
“We kept getting add-ons to our applications, so we didn’t have a good perspective on the different interfaces that would be impacted during a data center move,” says Dwayne Barstad, systems architect. “EMC’s Systems Application Mapping database tool helped us start to aggregate many of these loose ends which were not documented. By mapping application and systems interdependencies, EMC Consulting helped EchoStar avoid unplanned application outages during the move.”

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Dwayne Barstad, Systems Architect

Project completed on time, under budget, with added benefits

EMC Consulting worked closely with EchoStar’s IT staff and vendors to successfully complete the critical components of the data center move before its busy fall season was in full swing. The project was completed on time and under budget without downtime. EchoStar saved $1.2 million by outsourcing project management of the move to EMC, versus managing the move by itself. EchoStar also reported that it had less downtime from issues such as power and cooling as it had in the old data center. There were also unexpected benefits.

“We now understand our internal business and IT infrastructure better,” says Piper. “By carefully reviewing over 300 applications in a short period of time, we learned that there were capabilities we were not leveraging.”

For example, the EchoStar IT team evaluated the service-level requirements of a critical Siebel CRM call center application called DISH Smart, as well as defined related parameters for high availability and disaster recovery.

“The EMC Consulting engagement helped us identify the bare minimum infrastructure requirements for this application while maintaining an optimal service level so we could realize additional cost savings,” says Piper.

Accelerating business strategy and information lifecycle management

By working with EMC Consulting, EchoStar’s IT team developed improved project management methodologies and technical best practices.

“EMC brings all of its internal resources to bear on our issues, regardless of whether we need storage, network, or project management expertise or if we have performance issues,” says Piper.

For example, the EchoStar team learned data replication and migration best practices using EMC software such as EMC Symmetrix® Remote Data Facility (SRDF®).

“The overall technical expertise, assistance, and shared knowledge EMC Consulting provided to our team will help us go further now with our disaster recovery efforts or wherever we want to go,” says Patrick Malone, senior IT Manager.
EchoStar has almost a petabyte of EMC storage, ranging from Symmetrix DMX™ and CLARiiON® with Fibre Channel and ATA drives to EMC Centera™. It expects to realize additional information lifecycle management cost savings and service-level optimization benefits, similar to those in its Siebel CRM environment.

Helping IT align closer with the business to optimize costs and service levels is a key benefit delivered by EMC Consulting. This alignment is focused on addressing business challenges with IT resources.

“EMC knows EchoStar like our employees know EchoStar,” says Piper. “The data center move was absolutely strategic, and EMC helped us focus on the strategy and not jump right into the tactical.”

EMC Consulting offers services related to infrastructure consolidation (including data center moves), business continuity, classification and policy (to optimize application service levels with IT infrastructure), and IT service management (e.g., storage management optimization and ITIL best practices). Piper concluded, “Based on the engagement that we had with EMC on the data center move, my perception of EMC Services definitely changed. I now know that they are extremely knowledgeable and capable—and I will definitely use them again.”