



## Enterprise architecture enables NetApp to achieve significant growth.

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### Overview

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#### ■ **Challenge**

*Implement companywide IT standards and get a clearer view of enterprise operations*

#### ■ **Solution**

*Develop and implement an enterprise architecture and establish a virtual team that manages standards, vision and compliance*

#### ■ **Key Benefits**

- *Reduced costs and IT complexity*
- *Decreased time required to make strategic IT decisions*
- *Minimized risks for implementing new solutions*
- *Shorter project lifecycles*

#### **Teamwork, simplicity and innovation work at NetApp**

Network Appliance (NetApp) is a world leader in unified storage solutions for today's data-intensive enterprise. Since its inception in 1992, NetApp ([www.netapp.com](http://www.netapp.com)) has delivered simplified data management, flexible and scalable storage infrastructure, comprehensive data protection and reliable data access to thousands of businesses worldwide. The company, which is traded on Nasdaq and is a member of the Standard & Poor's S&P 500, posted revenues of more than US\$2 billion in fiscal year 2006, has 110 offices worldwide and employs more than 5,000 people. Its vision of providing simple solutions for complex business problems has helped NetApp establish itself as a leader and innovator in the storage industry. So has its passionate commitment to teamwork, simplicity and innovation.

Throughout its first decade, NetApp experienced steady growth and won the attention of Wall Street. In 1993, the company filed its first patent application. The following year it hired its

first employee in Europe, and late in 1995 NetApp offered its first shares of common stock in an initial public offering. The company was added to the S&P 500 and the Nasdaq-100 Index in 1999. By 2003 *Fortune* magazine named it one of the FORTUNE 100 Best Companies to Work For®—an honor NetApp would earn four years in a row. In 2004, NetApp achieved 31 percent annual growth, which was three times the industry average. In 2005 it posted annual revenues of US\$1.6 billion, with 89 offices and more than 3,900 employees worldwide. That year also marked a significant milestone in NetApp's relationship with IBM. The two companies signed an original equipment manufacturing (OEM) agreement, and IBM introduced the IBM System Storage™ N series technology based on NetApp FAS3000 technology. Later that year, NetApp celebrated its tenth anniversary as a public company and, together with IBM, set the online transaction process performance record for the number of transactions conducted per minute.

## **Growing pains give way to focus on expansion**

Remarkable growth and industry recognition are often accompanied by growing pains, and NetApp is no exception. By 2006 the company realized its IT infrastructure needed help. The environment was disjointed, integration was limited, accountability was weak and there was no adherence to standards because there were no standards in place. “The concept of overarching enterprise architecture as a practice never existed before at NetApp because we didn’t need it—we were a small company,” says Job Simon, IT director of enterprise architecture and Web services for NetApp. By definition, architecture was built into every project that NetApp implemented, but there was no set of standards to follow, nor was there any oversight.

In 2006, as NetApp expanded its business globally and set its sights on a much higher revenue goal, the company realized it needed to have a clearer view of its enterprise operations and implement companywide IT standards. “We felt the entire IT organization had to gear up for a much larger vision of NetApp—one that could scale to and support the growth goals,” says Simon. “Enterprise architecture was seen as the enabler, the foundation that’s required to create a scalable, serviceable and performance-oriented IT function.”

NetApp knew that if it was to achieve its revenue goal, the company would have to create an overarching enterprise architecture that would define internal communication channels; provide clear, concise documentation; and, most important, create a strategic plan for its IT infrastructure.

### **IBM Global Technology Services provides a specialized team that can implement quickly**

The storage solutions marketplace doesn’t magically slow down for a few months while a growing company decides to reconfigure its entire IT infrastructure. NetApp needed enterprise architecture fast. The company searched for a solution provider that could help give it a rapid start. In particular, it looked for an established “boutique” company—a small firm that offered personalized services and had implemented enterprise architecture many times before. “We wanted a boutique company with a successful track record in enterprise architecture,” says Simon, “or a large company like IBM that could provide us with a boutique team. Either way, we were focused on the people, not the company.”

NetApp talked with several enterprise architecture consulting firms and with IBM Global Technology Services. IBM and NetApp already had an established relationship, because NetApp is an IBM Business Partner. Furthermore, IBM had an experienced practice in developing

and implementing enterprise architecture. According to Simon, the final decision was based on the individuals IBM brought to the table. “Finding the right people takes time,” he says, “It’s important when you’re working with a large enterprise like IBM that the right

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players are identified to work on the project. I chose three people at IBM who had the knowledge and depth of experience we needed—and could command the respect of our very experienced in-house staff.”

What NetApp needed was a service provider to help speed the process of implementing its enterprise architecture. “We were looking for a partner, not

a teacher,” says Simon. “We had the expertise to implement it ourselves, but it would have taken us much longer. This engagement was just 12 weeks.”

First, the IBM team documented NetApp’s current IT strategies and direction. The team conducted workshops with NetApp that focused on IT service management and design and created conceptual models for NetApp to use. An extended architecture team helped identify ways to improve the existing infrastructure and created a methodology to help NetApp make decisions regarding which IT solutions it would use internally.

The IBM team also established governance aspects to manage NetApp’s architectural artifacts. This phase included the development of four domains, each of which has different requirements:

- *Business architecture*
- *Data architecture*
- *Application architecture*
- *Technical architecture*

Then, to help NetApp define its enterprise architecture, IBM designed five architectural processes:

- *Change*
- *Evaluation/selection of tools for the architecture*
- *Compliance*
- *Communication*
- *Vitality (looking at new technologies)*

Finally, IBM provided NetApp with four concrete deliverables:

- *Technical enterprise framework*
- *Documented governance*
- *Transition plan*
- *Executive summary of the engagement and an architecture review checklist*

### **Twelve-week engagement delivers standards NetApp can follow**

IBM provided NetApp with a rapid start in developing an architectural practice. The solution created a virtual enterprise architecture team that owns the basic architectural vision for the company. NetApp now has a set of architectural principles that govern five areas: general, application, security, infrastructure and data. IBM also provided an IT architecture framework that included a sunset chart for each application inside that framework. To create the sunset chart, IBM interviewed the architect responsible for that application, established the current standards and future vision, identified the gap between the two and created a plan to implement the future vision as well as a plan to retire old standards. A governance team and process were also put in place to enforce compliance and solve architectural team problems.

The result at the microlevel is that NetApp has a virtual enterprise architecture team to which every new project architect can turn for help. For every

area of IT at NetApp, there is an established set of standards and a plan for the future. There is no ambiguity regarding how the project or application fits into the overall NetApp vision.

NetApp develops hundreds of projects every year. Now each project architect has the responsibility to comply with NetApp’s architectural standards. This reduces the complexity of IT components across the organization. It is still possible to implement a project when there is a sound business case for not complying with standards. However, in such cases the architect must seek approval from the virtual enterprise architecture team and develop a plan for eventually bringing the project into compliance.

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At the macrolevel, NetApp has a rolling architectural process and plan. The virtual enterprise architecture team works to support the company's three-year vision. Each year, the team reworks the plan as the corporate vision is updated. It's an ongoing process.

**Not just enterprise architecture but a foundation for the future**

By engaging IBM Global Technology Services to design an enterprise architecture, NetApp decreased the time it spends making strategic IT decisions. It also minimized the risks for implementing new solutions and shortened project lifecycles. Over time, the conceptual architecture IBM designed is expected to help NetApp reduce its costs and IT complexity. The solution is designed to enable the company to be more responsive to vendors and customers, and to help NetApp reach its revenue target.

"We achieved a great deal in just 12 weeks," says Simon. "IBM left NetApp with a foundation in place that we have been working with ever since and will continue into the future. IBM's participation was a key component of NetApp's maturity in becoming a process-driven organization."

**For more information**

To learn more about enterprise architecture and IBM Global Technology Services, contact your IBM representative or visit:

**[ibm.com/services/us/index.wss/offering\\_related/bcs/a1000297](http://ibm.com/services/us/index.wss/offering_related/bcs/a1000297)**



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Somers, NY 10589  
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