

Consulting Services for Veritas Storage Foundation™

Reducing the complexity of enterprise storage management

The continued explosive growth in corporate data, combined with the proliferation of disparate storage management tools and technologies, has created a significant challenge for storage administrators, IT managers, and CIOs who are tasked with maintaining efficiencies and managing growth and complexity within multi-vendor storage environments.

The Veritas Storage Foundation¹ technologies and associated services allow data centers to address the IT challenges associated with visibility, control, and ongoing management of diverse, rapidly growing storage environments—with a single product suite. Storage Foundation represents a core set of industry-leading products and technologies within Symantec’s Data Center Foundation product family.

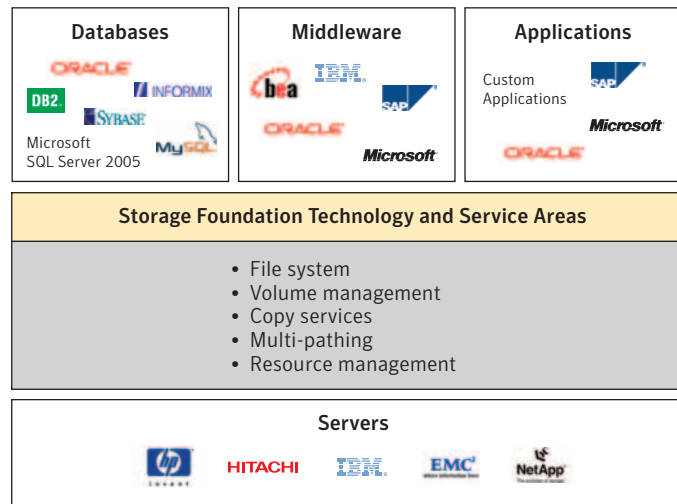


Figure 1. Storage Foundation Technology and Service Areas

Consulting Services for Veritas Storage Foundation

Symantec Consulting Services provides a portfolio of offerings for Veritas Storage Foundation that delivers the business and technical expertise for enterprises to achieve storage resource optimization, centralized heterogeneous storage management, tiered storage solutions, data and storage migrations, and I/O performance optimization. These services enhance the visibility, utilization, performance, and overall manageability of storage and application resources, while increasing efficiencies and reducing the cost and complexity of managing enterprise storage infrastructures.

Symantec’s Consulting Services offerings for Storage Foundation combine time-tested methodologies and best practices with unique advisory, enablement, and onsite residency services. These services allow customers to fully leverage the technologies within the Storage Foundation product suite and thereby realize the key business objectives of **optimization** and **enabling IT service management**.

Business objective: Optimization

As the recognized leader in storage management and virtualization solutions, Symantec can help organizations effectively address explosive storage growth and improve the utilization of existing storage assets. We provide services that help organizations standardize, centrally manage, and automate storage administrative processes, thereby improving efficiency and reducing costs.

Symantec’s Storage Management consultants deliver the following services associated with Storage Foundation and the business objective of **optimization**.



Tiered Storage Deployment²: This service enables Storage Foundation customers to reduce their storage costs and/or improve their I/O performance through the efficient and effective use of multiple classes of storage within their enterprise environments. This offering helps customers develop policies that allow data to be transparently moved to appropriate classes of storage over time—without changing the way that users or applications access data. As a result, storage resources can be utilized more efficiently, and costs associated with the purchase and management of high-end storage can be reduced.

This service can also be used to improve the performance of an existing storage environment by allowing a faster class of storage to be dynamically added, then selectively placing high-use data on this new storage class. Examples of specific technologies associated with this service are Storage Foundation Dynamic Storage Tiering and FlashSnap™.

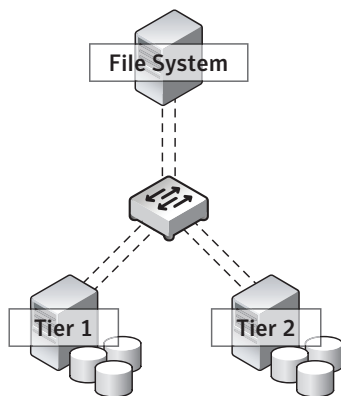


Figure 2. Tiered Storage Deployment

Storage Resource Optimization: Our consultants can implement a variety of solutions that optimize storage resources to suit any environment, regardless of storage topology, operating environment, or storage hardware. Our industry-standard technologies such as storage virtualization, RAID, and others can be designed and configured to maximize disk utilization and accommodate specific environments such as databases or clustered file systems.

Storage and Platform Migration: Symantec consultants can advise and assist customers when migrating data to different storage devices and/or different operating systems. In the majority of cases, data can be migrated using technologies such as Dynamic Storage Tiering (DST) or Portable Data Containers (PDC). DST enables data to be transparently migrated between storage devices, while PDC enables disk groups, volumes, and file systems to be migrated between different types of operating systems without requiring additional hardware or network bandwidth. Additional technologies such as replication, mirroring, point-in-time copies, log shipping, archiving, and backup/restore may also be deployed with this service, to execute a flexible and cost-effective migration strategy.

Data Center Migration: This service builds upon the Storage and Platform Migration services to enable storage to be migrated between physical sites through the inclusion of replication technologies and/or data pump methodologies. An example of the typical data pump method is via a system that collects the data from the primary site using the Veritas™ Volume Replicator Option, and pumps it onto a storage area network (SAN) at the secondary site.

File System Conversion: These services assist customers with the planning and conversion of their existing UNIX or Linux® file systems to the Veritas File System, thereby minimizing the time and risk to their investment when deploying Symantec software.

Intelligent Storage Provisioning (ISP) Template

Development: This service helps our customers create templates that can be deployed by Veritas Volume Manager to efficiently and consistently provision storage based upon predefined application requirements and criteria. These templates help accelerate and automate the deployment of new storage and ensure company-wide consistency with established policies for storage configurations.

I/O Performance Tuning: Storage Foundation and Storage Foundation for Databases are designed to deliver superior I/O performance through industry-leading features and capabilities. In order to gain the maximum performance and business benefit, Storage Foundation products must be tuned for the I/O profile of the application and the characteristics of the underlying storage infrastructure. Our consultants can analyze I/O profiles, assess the storage infrastructure, and tune Symantec products to deliver optimum I/O performance for demanding user environments.

Database Storage Optimization: These services support the database-specific versions of Storage Foundation for Oracle, Oracle RAC, DB2, and Sybase, and include the configuration and deployment of specific Symantec capabilities that are unique to database environments. Our consultants can tune and optimize database performance and also determine where performance hotspots exist by mapping database objects to storage devices. We can also configure volume- or file system-level snapshots for database cloning, fast recovery, or off-host processing.

Business objective: Enabling IT service management

Many enterprises find that their users' demands for improved quality of service—higher availability, greater performance, improved manageability, and recoverability—are outpacing the capabilities of their IT infrastructure. Symantec consultants can help enterprises stay agile and flexible so that service is consistently delivered, even when user requirements or available resources are not consistent. The following consulting services for Veritas Storage Foundation enable organizations to align IT with business initiatives, improve service levels, manage change, and optimize infrastructures—ultimately allowing them to deliver storage as a service for the business.

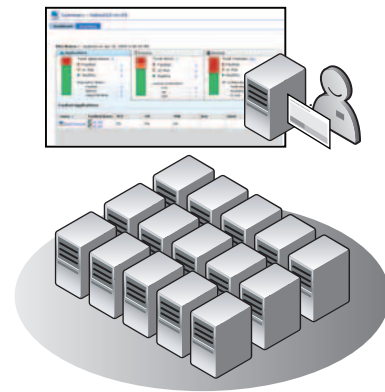


Figure 3. Centralized Storage Management Deployment

Centralized Storage Management Deployment²: This service enables Storage Foundation customers to reduce their operational costs and improve efficiency by centralizing the management, monitoring, and reporting of the File System and Volume Management layers within their storage infrastructure. Our consultants can help customers with all aspects of this implementation, from the initial sizing of the centralized management environment through to operation.

The result is a storage management solution that enables all instances of Storage Foundation across the data center to be centrally viewed and managed.

The Centralized Storage Management Deployment service ultimately reduces storage management effort and costs, increases operational efficiencies, and provides greater visibility, reporting, and automation capabilities for customers' storage environments. The specific technology associated with this deployment service is Veritas Storage Foundation Management Server.

Centralized SAN Management and Reporting: Symantec Consulting services can help customers design, plan, and implement solutions that enable heterogeneous storage devices to be efficiently discovered, provisioned, and managed across a SAN—via a single console. These services include data classification, report development, and storage assessments to quickly determine where storage devices are over- or underutilized, along with capacity planning and trend analysis to identify and eliminate potential storage resource bottlenecks that can impact performance and availability over time. Symantec's SAN Management services allow the true value of storage to be recognized by making it measurable, accountable, and tightly aligned with business objectives and service-level agreements (SLAs). These services and solutions deploy the advanced capabilities of Veritas CommandCentral™ Storage, a part of the Storage Foundation product family.

Addressing key business objectives

The key enterprise business objectives delivered by Symantec's consulting services for Symantec Data Center Foundation³ are:

- Standardization
- Optimization
- Protection
- Enabling IT Service Management

Symantec consulting services for Veritas Storage Foundation primarily focus on the optimization and enabling IT service management objectives. A separate consulting service offering is available to address the standardization objective. Please refer to the Storage and Availability Standardization Assessment data sheet for further information.

Additional consulting services are also aligned with the enabling IT service management and protection objectives. Please refer to the following data sheets for information on these services :

- Consulting Services for Veritas Server Foundation
- Services for Symantec Data Center Foundation
- Symantec Residency Services

Symantec Consulting Services Consulting Services for Veritas Storage Foundation

About Symantec Consulting Services

Symantec Consulting Services has helped IT teams from over 95 percent of Fortune 500 companies enhance and maintain the security and availability of their information and infrastructures. With over 700 consultants worldwide, we provide consulting services to clients in more than 60 countries and participate in more than 4,000 engagements per year. Our consultants possess an average of more than 15 years of experience in security, storage, and availability technologies across all major operating systems, storage hardware, and application environments.

For more information about services for Veritas Storage Foundation products and technologies, please contact the Symantec Consulting Services Center: 1 (877) 870 5700.

More information

Visit our Web site

<http://enterprise.symantec.com>

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Call toll-free 1 (800) 745 6054

To speak with a Product Specialist outside the U.S.

For specific country offices and contact numbers, please visit our Web site.

About Symantec

Symantec is the world leader in providing solutions to help individuals and enterprises assure the security, availability, and integrity of their information. Headquartered in Cupertino, Calif., Symantec has operations in more than 40 countries. More information is available at www.symantec.com.

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¹ Veritas Storage Foundation includes Veritas Volume Manager, Veritas Volume Server, Veritas File System, Veritas Storage Foundation Management Server, Veritas Volume Replicator, and Veritas CommandCentral Storage products and technologies.

² Service introduced with Veritas Storage Foundation 5.0.

³ Symantec Data Center Foundation consists of Veritas Storage Foundation, Veritas Server Foundation, Veritas NetBackup™, and Symantec i3™ product families.

