The Challenge

Data-driven businesses rely on their decision support systems and data warehouses to provide real-time access and analysis of business-critical information so that they can provide the most comprehensive data management services. These organizations must manage rapidly expanding data volumes, data growth, and consolidation of data from multiple sources, including databases, unstructured content, enterprise applications, and more.

Organizations also face a growing demand for the analytic capabilities of the decision support system and data warehouse from a wide range of users who require access. These users include end users, database analysts, storage administrators, IT staff, line-of-business managers, and executive leaders.

The Solution

NetApp’s data management solutions for decision support systems and data warehouses offer high availability, data protection, increased storage utilization, workload management, and instantaneous modular scaling.

NetApp Snapshot® copies are fast, reliable, real-time copies of decision support and data warehouse data. Database administrators use Snapshot copies to provide real-time delivery of data marts and for checkpoint data protection during extract, transform, and load operations.

NetApp SnapMirror® simplifies data warehouse recovery efforts by providing replication and reducing disaster recovery complexities and recovery costs. SnapMirror also simplifies disaster and business continuity processes, eliminates some disaster recovery complexities, and reduces recovery costs by simplifying the process and time requirements.

NetApp FlexClone® saves space by providing virtual copies of data sets and establishing data warehouse clones for development and testing. FlexClone enables testing with the latest data flows while minimizing the impact on production systems.

**KEY BENEFITS**

- Full multi-tenant support
- Multiple database support
- Configured per joint best practices
- Integrated system approach—physical and virtual
- Designed for open architectures
- Optimized for multiple workloads: data warehouse, OLTP, business intelligence, click stream analysis, and consolidation
- Hosted proof-of-concept delivery
- Leverages NetApp® storage efficiencies and advanced data protection
- Built on Cisco Unified Computing System (UCS)
- A Cisco Validated Design solution

**Cisco.**
NETAPP AND CISCO REDEFINE THE DATA WAREHOUSE MARKET

Together, NetApp and Cisco bring multi-tenancy, multiple database, unified fabric, and support for any application or workload to the data warehouse market. NetApp and Cisco are leaders in innovation whose shared corporate vision centers on complete data center architectural alignment for data warehouses. Our joint design strategy is to deliver data warehouses in a unified and highly virtualized infrastructure combined with data management and storage efficiency to drive IT efficiency.

NetApp and Cisco share a technology philosophy that 10 Gigabit Ethernet is the data center transport of the future. The NetApp and Cisco UCS data warehouse architecture includes the following components.

**Compute**
- Up to 8 blades per chassis
- Intel® Xeon® Quad-Core CPUs
- 48Gb memory per blade
- UCS fabric redundancy

**Network**
- 10 Gigabit Ethernet/FCoE
- vPC
- EtherChannel
- Link and device redundancy

**Storage**
- NetApp RAID-DP®
- NetApp HA
- NetApp Snapshot
- NetApp SnapMirror and SnapVault®

ABOUT NETAPP

NetApp creates innovative storage and data management solutions that deliver outstanding cost efficiency and accelerate performance breakthroughs. Discover our passion for helping companies around the world go further, faster at www.netapp.com.

![Figure 1) NetApp and Cisco UCS Architecture](image-url)