

# Cisco Data Center Optimization Services



Evolve your data center solutions to promote business growth, deliver next-generation services, and maintain competitive advantage with Cisco Data Center Optimization Service.

## Deliver Agility and Performance with a Unified Systems Approach

Today's business leaders are asking data centers to provide better responsiveness, deliver operational excellence, and quickly and securely adopt new virtualization and cloud technologies.

In an environment characterized by high energy costs, budget uncertainties, and a shortage of qualified staff, the demand for data center performance is a continuing challenge.

Data center managers, in response, must evolve their data center environments to support business growth, deliver next-generation services, and maintain a competitive advantage. To advance their data centers, organizations often migrate to new IP services with converged data, voice, and video, while also scaling and deploying diverse and complex technologies such as virtualization.

Without this evolution, the data center cannot provide the capabilities required to overcome technical challenges and take full advantage of business opportunities. In addition, data centers simply do not have the staffing resources and expertise to treat each challenge and each technology component separately.

Data centers need a more efficient operating model – a unified systems approach that views all resources as an integrated and unified entity, so that targeted investments can add greater value across all business and technology areas. Data center managers must evaluate current designs to determine how to best virtualize and consolidate applications, servers, storage, and switching functions, while placing a continuing emphasis on maintaining a dynamic, flexible, and efficient data center environment. All levels of data center functionality must be evaluated and detailed in a master architecture plan.

## Cisco Data Center Optimization Services

Cisco provides a uniquely holistic view of all your data center functional areas and their effects on operational management that is using virtualization and segmentation. Cisco® Data Center Optimization Services take advantage of this unified perspective to provide a set of activities for building a custom data center solution.

These activities will guide you through the process of creating a comprehensive data center architecture that can quickly absorb technology innovations, meet your ongoing business needs, and reduce costs.

Cisco consulting engineers provide this service using industry-leading tools and best-practice methodologies to mitigate implementation risks and accelerate your return on investment (ROI).

Our engineers periodically assess and review detailed design standards for your data center and evaluate the ability of your applications to meet your future requirements.

Cisco, as well as its largest customers, also use best-known methods as blueprints for success. With these methodologies, Cisco supports and guides you as we work through your data center initiatives. We help you meet tight timelines and facilitate high availability and security as we mitigate risk through proactive recommendations, escalation support, and continuous learning.

Cisco Data Center Optimization Services provide recurring analyses of the performance data and configurations from your network and your data center devices to give you a continuous, strategic view of your data center environment. Ongoing communication with Cisco experts keeps you informed about new products and software features.

Cisco Data Center Optimization Services give you the opportunity to select individual supporting service packages, organized by hardware technology and solution to optimize specific areas of your network and data center, as well as a choice of activities and deliverables. These supporting service packages are available for data center strategy and architecture, cloud services, desktop virtualization, and traditional technology areas, such as unified computing, unified networking services, unified fabric, and storage. Each service package is offered as a bundle or standalone offering with a variety of options to let you customize your service by selecting the service components that you need.

### **Strategy and Architecture**

Strategy and architecture help you evaluate your current data center landscape and develop a plan to virtualize, consolidate or grow, and automate your data center platform. Taking a horizontal approach to redesign, Cisco will help you understand cross-infrastructure management, migration issues, and costs involved in maximizing your return on investment (ROI) and operational excellence in the data center.

- Prepares your data center for end-to-end virtualization solution by identifying gaps in your server, storage, and network infrastructure

- Helps you understand the cross-infrastructure management and operations actions required to achieve an effective virtualization implementation to manage risk
- Achieves a dynamic platform capable of consolidation, growth, and automation that helps increase ROI

### **Cloud Optimization**

Cloud optimization evaluates and helps you understand the current state of your technology (network/compute/storage/virtualization infrastructure) and operations management architectures (systems management tools). It also provides recommendations on changes required to help you transition to a cloud operational model that will enable an infrastructure as a service (IaaS).

- Helps you accelerate your decision on how and when to transition to a cloud IaaS architecture with Cisco cloud solution expertise
- Provides a basis for how to best manage a cloud service architecture with our Cloud Management Automation Assessment
- Provides information and recommendations to help facilitate and accelerate your overall cloud adoption and management plans while decreasing costs

### **Desktop Virtualization Optimization**

Desktop virtualization optimization provides key performance and utilization metrics for your desktop and application environments. As part of the engagement, Cisco reviews best practices for evolving your desktop virtualization environment in order to support data center growth, improve productivity and IT operational processes, accelerate change, and develop a future deployment roadmap, including architecture recommendations for desktop virtualization deployments.

- Assists in defining your operational and technical objectives, while aligning them with industry best practices so that you meet current and future business operational requirements, mitigate risk, and reduce operating expenses
- Helps identify areas for platform improvement through performance and capacity patterns, peak utilization trends, and underutilized assets to achieve operational excellence
- Improves operational maturity, manageability, and delivery of desktop services through periodic reviews of the architecture and data center operations, thus making sure best practices are being implemented
- Provides ongoing expertise, support, and training to help you improve your desktop virtualization operational environment so it remains a competitive resource

### **Unified Networking Services Optimization**

Data center networking optimization helps you develop an ongoing methodology, including an annual cycle of assessments, support, and learning, for delivering operational excellence. The analysis and recommendations cover all planned data center initiatives and new features as they are released to maximize use of data center assets. Unified Networking Services focus on application distribution and delivery and application network performance.

#### *Application Distribution and Delivery*

- Helps ensure operational excellence so your users have fast, secure application access in a scalable Layer 4–7 environment
- Supports application and infrastructure redundancy while providing high-performance throughput and scalability
- Lets you add new services and apply changes without interrupting existing applications running on Cisco devices, such as the Application Control Engine (ACE), Global Site Selector, or appliances

#### *Application Network Performance*

- Provides ongoing, efficient, and focused support aimed at helping ensure a consistently high level of video application performance across your data center's wide area network (WAN)
- Helps you evolve your business by identifying design options and configurations that help maintain or improve application responsiveness utilizing wide area application services (WAAS) and the Cisco Enterprise Content Delivery System (ECDS)
- Provides support to deployed solutions that consolidate your remote office infrastructure into a centrally managed data center and optimizes WAN performance

#### **Unified Computing Optimization**

Unified computing optimization activities and deliverables help you evaluate how unified computing can benefit the performance and efficiency of your data center's server capacity. Application requirements, trends, procedures, capacity patterns, and security needs are utilized to recommend optimal architectures that are secure and resilient.

- Evolves your Cisco Unified Computing System™ (Cisco UCS™) to continually optimize operational efficiency and support high application performance
- Provides periodic audits of configuration and performance as well as leading practice adoption so that your Cisco Unified Computing System configuration meets your performance needs
- Strengthens in-house expertise through ongoing support, knowledge transfer, and mentoring

#### **Unified Fabric Optimization**

As part of the unified fabric optimization activities, Cisco experts meet with your data center staff in a series of trainings and meetings to develop a thorough understanding of a single Cisco Nexus® advanced feature. As part of the advanced-feature engagement, we review current Cisco Nexus design and provide recommendations with a focus on potential ways of using the selected and available Cisco Nexus advanced feature in areas such as virtualization, resiliency, availability, and scalability. Cisco will work with you to develop a migration strategy to roll out the selected Cisco Nexus feature into your existing Cisco Nexus environment.

- Provides a Cisco Nexus solution for virtualizing resources over a unified switching fabric that integrates applications, servers, and storage systems

- Encourages rapid deployment of Cisco Nexus advanced features, such as fabric path, into your design
- Permits quicker realization of the gains afforded by Cisco Nexus advanced features
- Reduces the risk, through business continuance reviews, associated with deploying new features into an existing production design
- Allows you to quickly absorb new features and functions that become available for Fibre Channel over Ethernet (FCoE), thereby enabling you to obtain the maximum value and performance from your solution
- Helps you analyze, improve, and optimize your Cisco Nexus solution while supporting your planned data center transformation initiatives

### **SAN Optimization**

Storage area network (SAN) optimization activities and deliverables help you develop an ongoing methodology to make sure of operational excellence, using an annual cycle of assessments, support, and learning. The analysis and recommendations comprehend planned data center initiatives as well as new features as they are released to make sure of maximized use of data center assets.

- Delivers a consistently high level of SAN performance and availability and supports growing information management needs
- Optimizes your SAN infrastructure based on the Cisco multilayer director switch (MDS) family switches, which consolidate SAN islands into a secure, manageable solution that supports business continuance and disaster recovery for intelligent storage fabric applications
- Speeds the identification and resolution of SAN issues after the initial deployment and helps ensure optimal performance in a dynamic environment

### **Performance and Validation Testing**

Cisco Data Center Optimization Services also include a performance and validation testing option that gives you access to Cisco subject matter experts in data center architecture design and testing and helps you build customized test systems that include virtually any product in the Cisco portfolio, as well as products from other vendors, so that you can validate your solution end to end.

### **Benefits**

Cisco Data Center Optimization Services help you transform your data center by determining how to virtualize and consolidate applications, servers, storage, and switching functions. The service helps you to:

- Improve the performance of business-critical applications
- Reduce operational overhead
- Quickly absorb technology innovations with less risk
- Reduce costs through the efficient use of equipment and data center operation
- Improve productivity and enhance business processes
- Increase revenue through improved application performance

## Cisco Expertise

Cisco use best practices and proven methodologies to help you quickly and efficiently plan and deploy a high-performance, resilient, and scalable, virtualized architecture for your business. Cisco Data Center Optimization Services are delivered by Cisco experts who hold a wide array of industry certifications and are subject matter experts in business and technology architecture and data center technologies. They have direct experience in planning, designing, and supporting virtualization solutions. Cisco product and technology expertise is continually enhanced by hands-on experience with real-life networks and broad exposure to the latest technology and data center implementations.

## Why Cisco Data Center Services?

Today, the data center is a strategic asset in a world that demands better integration among people, information, and ideas. Your business and your data center work better when technology products and services are aligned with your business needs and opportunities. Cisco and our industry-leading partners deliver intelligent, personalized services that accelerate the transformation of your data center. Using a unique, network-based perspective and a unified view of data center assets, Cisco takes an architectural approach to help you efficiently consolidate, virtualize, and manage data center resources. Cisco Data Center Services help transform, optimize, and protect your data center to reduce costs, deliver high availability, and improve application performance.

## Availability

Cisco Data Center Optimization Services are widely available. Contact your local Cisco account manager about availability in your area.

## For More Information

For more information about Cisco Data Center Optimization Services, as well as the broad array of Cisco Services for the data center, contact your local Cisco account manager or visit [www.cisco.com/go/dcservices](http://www.cisco.com/go/dcservices).



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