# Cisco Nexus Services



#### Cisco Nexus Services include:

- Cisco Data Center Plan and Build Services for Nexus, formerly known as Cisco Nexus Planning and Design Service
- Cisco SMARTnet Service
- Cisco Data Center Optimization Service for Unified Fabric Nexus, formerly known as Data Center Optimization Service for the Unified Switching Fabric

# Build a More Scalable, Efficient, and Resilient Virtualized Data Center Architecture

After years of rapid and often unplanned expansion, many data centers contain duplicated and under-utilized resources that increase operating costs, power and cooling requirements, and management complexity. With cost control vital to business success, data center managers must find new ways to meet business requirements while reducing expenses. Virtualization has the potential to dramatically reduce costs and increase data center efficiency by enabling consolidation and improving resource utilization. However, virtualization also places extensive demands on the network. A fast, reliable switching infrastructure that is designed to provide high performance in a virtualized environment is critical to meeting next-generation data center requirements.

## **Switching for the Virtualized Data Center**

Cisco Nexus™ switches offer the latest in next-generation switching innovations that enable efficient virtualization, high-performance computing, and a unified fabric. Cisco Nexus Services can help you create a highly efficient, virtualized data center by integrating the Cisco Nexus Family of data center-class switches into your network infrastructure.

The Cisco Nexus family of Cisco Nexus 7000, Nexus 5000, and Nexus 4000 Series data center switches and Nexus 2000 Series Fabric Extenders (FEX) is designed for highly scalable, end-to-end 10 Gigabit Ethernet networks. These data-center-class switches feature continuous system operations and transport flexibility, and deliver innovative networking capabilities such as a unified fabric; I/O consolidation; and high-performance, low-latency, 10 Gigabit Fibre Channel over Ethernet switching.



Together, Cisco Nexus switches can support the extensive bandwidth requirements that result from aggregating servers when you consolidate or virtualize your data center network. And by helping to enable scalable server virtualization, the switches also help reduce power and cooling costs, and support highly available data center core and server access.

Cisco Nexus Services help you incorporate the Cisco Nexus switches into your data center environment to create a next-generation data center architecture. The services are delivered by Cisco<sup>®</sup> subject matter experts using best practices, so you can quickly and efficiently integrate new data center solutions and technologies into a high-performance, resilient, and scalable architecture that meets your business objectives.

#### Cisco Data Center Plan and Build Services for Nexus

The Cisco Data Center Plan and Build Services for Nexus help you develop a more scalable, efficient, and resilient data center architecture based on the Cisco Nexus hardware platform. They define an architecture that meets your business and technical goals, evaluate the gaps between your current infrastructure and your desired architecture, and provide recommendations to help you achieve your goals. An important part of this process is integrating your resources to create a more cost-effective solution that combines the unified fabric, unified computing, applications, storage, and service resources in your network. For example, Cisco experts can help you consolidate current server Fibre Channel and Ethernet interfaces into a new 10 Gigabit Fibre Channel over Ethernet (FCoE) environment. These services also plan a management strategy and transfers knowledge to your server, network, and storage staffs to help them take full advantage of your data center's new capabilities. With these advantages, Cisco Data Center Plan and Build Services for Nexus can help you create an architecture that supports your organization's growth, server performance, and storage and virtualization goals – all while lowering risk.

The Cisco Data Center Plan and Build Services for Nexus include the following activities:

- Pilot support
- Nexus assessment
- High-level design review
- Low-level design review
- Proof of concept and pilot program
- Migration and implementation plan
- Migration and implementation support
- Remote knowledge transfer sessions

#### Cisco SMARTnet Service

With multiple technologies and applications that continuously evolve and interact, problems arise even in the best-designed and best-managed data centers. Cisco SMARTnet® Service is an award-winning technical support service that helps you manage these unavoidable problems.

Cisco SMARTnet Service gives you direct, anytime access to Cisco engineers for rapid issue resolution, device-by-device coverage, and premium service options that target operational efficiency. With the resources of Cisco SMARTnet Service, you can rapidly resolve many data center issues to improve productivity, increase operational efficiency, and extend the life of your Cisco Nexus Switches and other network assets. Cisco SMARTnet Service includes the following activities:

- Around-the-clock global access to the Cisco Technical Assistance Center (TAC)
- Access to the extensive Cisco.com knowledge base and tools
- Next-business-day hardware replacement (premium options available for business-critical devices, such as 2-hour replacement and onsite parts replacement and installation)
- Ongoing operating system software updates and upgrades
- Cisco IOS<sup>®</sup> Software support
- Proactive diagnostics and real-time alerts

#### Cisco Data Center Optimization Service for Unified Fabric Nexus

Data centers host applications that are essential to revenue-generating activities and efficient business operation. Because any outage in this environment can directly affect your business, you must make sure that your data center continuously delivers optimized performance. Plus, many data centers are adopting new initiatives. To help reduce the effects of outages and help ensure the success of your data center initiatives, you need to manage risk and complexity in your operational environment and implement proactive change management.

As part of our data center optimization service offering, Cisco provides a Cisco Nexus solution for virtualizing resources over a unified switching fabric that integrates applications, servers, and storage systems. This solution helps you analyze, improve, and optimize your Cisco Nexus solution while supporting your planned data center transformation initiatives. Optimizing your Cisco Nexus implementation helps you maintain a high level of data center performance and operational efficiency as you evolve to a next-generation data center.

The Cisco Data Center Optimization Service for Unified Fabric Nexus includes the following activities:

- Data center assessment
- Data center support
- Data center learning

Cisco Nexus Services can help you reduce capital and operational expenditures through more efficient use of equipment and more efficient management.

#### **Benefits**

Distributed architectures and the growing need for network resources have created massive inefficiencies in data center resource utilization, spending, and management. As next-generation data centers are developed, virtualization will be central to a sustainable productivity and growth strategy. The Cisco Nexus family of data-center-class switches can help you create a unified switching architecture. With services that support quickly designing, deploying, operating, and optimizing your virtualized data center architecture, Cisco Nexus Services can help you:

- Reduce capital and operational expenditures through more efficient use of equipment and more efficient management
- Lower power and cooling demands by unifying storage, server, and network resources
- Create an architecture that supports your organization's growth, server performance, and storage and virtualization goals
- Increase business agility with virtual machine and network policy mobility
- Maintain business continuity and protect your existing infrastructure investments
- Speed adoption of your Cisco Nexus solution and help ensure a smooth integration into your operational environment

### Cisco Expertise

Cisco Nexus Services are delivered by Cisco server and data center architects 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 a wide range of data center solutions including technologies such as virtualization, unified computing, Cisco Application Control Engine (ACE), Cisco Wide Area Application Services (WAAS), and SAN solutions. Our experts use leading practices and proven methodologies to help you define a customized, validated solution architecture that fits your unique requirements and reduces the risk of deploying new technologies. After your Cisco Nexus solution is deployed, Cisco Services can continue to help you optimize your data center so you can maintain your network performance and resiliency.

# 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 Nexus Services are widely available. Contact your local Cisco account manager about availability in your area.

#### For More Information

For more information about Cisco Nexus Services, as well as the broad array of Cisco Services for the data center, contact your local Cisco account manager or visit <a href="https://www.cisco/com/go/datacenterservices">www.cisco/com/go/datacenterservices</a>.

cisco.

Americas Headquarters Cisco Systems, Inc. San Jose, CA Asia Pacific Headquarters Cisco Systems (USA) Pte. Ltd. Singapore

Europe Headquarters Cisco Systems International BV Amsterdam, The Netherlands

Cisco has more than 200 offices worldwide. Addresses, phone numbers, and fax numbers are listed on the Cisco Website at www.cisco.com/go/offices.

Cisco and the Cisco Logo are trademarks of Cisco Systems, Inc. and/or its affiliates in the U.S. and other countries. A listing of Cisco's trademarks can be found at www.cisco.com/go/trademarks. Third party trademarks mentioned are the property of their respective owners. The use of the word partner does not imply a partnership relationship between Cisco and any other company. (1005R)

Printed in USA C22-548938-02 06/11

Cisco services. smarter together