Cisco Services for Unified Computing System (UCS)

Accelerate Your Transition to a Unified Computing Architecture

Cisco Unified Computing Services include the following:

- Architecture Assessment
- Planning, Design, and Implementation
- Support
- Optimization
- Security

More than ever before, the success of your business depends on the availability and performance of your business applications and the secure, flexible transport of information across your data center. However, many enterprise data centers are complex, siloed environments in which servers and storage equipment are under-utilized, cycle times for provisioning new applications are long, and operating costs -- especially power and cooling costs -- consume an ever-greater percentage of the IT budget. More and more organizations are turning to virtualization to address these issues. Unfortunately, many virtualization efforts do not deliver the expected results because they focus only on servers, failing to account for storage, network, and other critical resources.

Even though virtualization has been around for several years, only a small portion of operating system workloads has been virtualized today. Siloed organizations, with separate teams for applications, security, storage, servers, network, and facilities, present a complex environment for end-to-end approaches such as virtualization. Compounding the effects of organizational complexity, many customers struggle with understanding how virtualization will affect day-to-day operational and IT service management procedures.

The innovative Cisco Unified Computing System™ (Cisco UCS®) data center technology was designed to address this issue. By unifying network, computing, solid state storage and virtualization resources into a single, preintegrated platform, the system provides the foundation for a broad spectrum of virtualization and performance optimization efforts. Whether you are seeking to create a stateless computing environment, deploy high performing VDI based solutions, enable just-in-time provisioning of resources, simplify the movement of virtual workloads, or reduce equipment and operating costs, the Cisco Unified Computing System provides a powerful solution. To realize the full benefit of these innovations, you need to implement them quickly and accurately, in accordance with proven methodologies and industry best practices.

Cisco® Unified Computing Services help sustain and optimize the performance of your unified computing architecture after it has been deployed. Providing a unified view of all data center resources and interdependencies, Cisco can extend the benefits of your virtualization project beyond the domain of servers alone and help you tune the entire data center environment to meet your financial and technical objectives.

We offer a suite of services that can be customized to help achieve the specific goals you have set for your data centers whether you are adopting the Cisco UCS B-Series Blade Servers or the Cisco UCS C-Series Rack-Mount Servers with or without UCS Invicta Scaling System or Appliances. For example, we can help:

- Increase asset utilization by extending virtualization across data center resources
- Reduce your data center facility footprint and power and cooling costs by consolidating your web and application servers
- Address your requirements for business continuity and disaster recovery

Cisco and our industry-leading data center partners bring in-depth expertise to help you implement these and other projects, sustain and optimize them over time, and realize the full potential of your Cisco Unified Computing System.

Architecture Assessment Service

The first step in applying the benefits of unified computing to your business is isolating your objectives. The Cisco Unified Computing System provides a powerful platform for a broad range of projects, from stateless computing to virtualizing resources to providing a flexible, secure cloud computing infrastructure. To fully realize your goals, you need a clear understanding of how the solution will support your project in your unique environment.

The Cisco Unified Computing Architecture Assessment Service helps you to definitively map out the business and technical objectives for your unified computing project. This service gathers input from stakeholders across your organization to clarify your strengths and challenges and the issues that need to be addressed to make your project goals a reality.

The assessment begins by isolating your objectives and mapping them to a set of best practices for achieving them. It then continues with an in-depth documentation of architecture considerations across your existing and planned data center assets, including blade servers, computing resources, applications, operating systems, virtualization, input/output (I/O), and system management. The service documents the challenges, critical success factors, and risks involved in your project and the requirements you will need to meet based on your projected environment and user demands. At the end of the engagement, you will receive documented requirements, a set of recommendations for next steps, and a design that provides a blueprint of the recommended architecture for your implementation.

Planning, Design, and Implementation Services

Unified computing can deliver significant advantages for your business. Quickly reaping the benefits of a new data center initiative and mitigating risks require expert guidance. To realize the full benefits of your planned project, you need to account for the entire data center environment, including servers, storage, network, security, and applications. The Cisco Unified Computing Planning, Design, and Implementation Service helps you take the right steps to achieve your business and technical objectives and helps to reduce risk in your unified computing implementation.

The Cisco Unified Computing Planning, Design, and Implementation Services help you take the right steps to achieve your business and technical objectives. Nine services are available:

- Validation
- Accelerated deployment
- Virtualization assessment
- Virtualization accelerator
- Server virtualization mobility and management
- Management systems integration
- Migration and transition
- Database accelerator
- Installation

Nine Unified Computing Planning, Design, and Implementation Services are available:

- **Cisco Data Center Validation Service for UCS, formerly known as Unified Computing Preproduction Pilot Service:** If you are evaluating the Cisco Unified Computing System, a preproduction pilot is the best place to start. The Cisco Data Center Validation Service for UCS is a three-week engagement that conducts a pilot in your environment to validate that the project will deliver the business and technical objectives you expect. Through this pilot, you gain valuable expertise using the Cisco Unified Computing System before you commit to a purchase. The preproduction pilot engagement also develops a production-ready blueprint for deploying in your environment. At the end of the engagement, you will receive documentation of your validated business case with an executive summary detailing critical success factors, risks, and the next steps toward a successful deployment.

- **Unified Computing Accelerated Deployment Service:** If you have already committed to implementing the Cisco Unified Computing System, the CiscoUnified Computing Accelerated Deployment Service provides planning, design, and implementation expertise to bring your project into production in one segment of your data center within four weeks. You will collaborate with Cisco experts to design the production scope that the engagement will cover. At the end of the engagement, you will receive documentation of the recommended next steps, an architectural design, and a run book to scale the implementation throughout your environment.

- **Unified Computing Virtualization Assessment Service:** The first steps in launching a successful virtualization effort are assessing the opportunities for server consolidation and designing the right virtualized architecture for your datacenter. The Cisco Unified Computing Virtualization Assessment Service provides a clear, comprehensive analysis of the server consolidation opportunities within your physical IT infrastructure and provides expert assistance to creating a roadmap for your solution. The engagement consists of automated data collection from your compute environment, followed by an interactive facilitated design session.

- **Unified Computing Virtualization Accelerator Service:** This service provides expert guidance through the design and deployment of a virtual server environment on the Cisco Unified Computing System. The Cisco Unified Computing Virtualization Accelerator Service begins after you have installed the Cisco Unified Computing System and the environment is online. It helps you design and deploy an optimized compute infrastructure. It includes the development and implementation of an exhaustive test plan to address the resiliency and flexibility of your planned unified architecture on the Cisco Unified Computing System.

- **Unified Computing Server Virtualization Mobility and Management Service:** This service provides in-depth planning and design for an end-to-end datacenter virtualization strategy and for enhanced provisioning and management of virtual machines. The Cisco Unified Computing Server Virtualization Mobility and Management Service applies management and movement best practices to help you eliminate common problems associated with virtual machine deployments. The service provides an exhaustive evaluation of your current environment and processes and documents requirements across your existing and planned assets to achieve your virtualization objectives. At the end of the engagement, you will receive all of the information you need to begin implementing your virtualized data center, including detailed documentation of requirements and an architectural design.

- **Unified Computing Management Systems Integration Service:** Designed for Cisco UCS solutions that include the Unified Computing System Manager, this service provides for the creation of an interoperability interface between the unified computing platform and third-party management tools, using the available application programming interface (API) for ease of provisioning, monitoring, troubleshooting, and adaptability of the unified computing platform. The Cisco Unified Computing Management Systems Integration Service uses the advanced API of the Cisco Unified Computing System Manager to tightly integrate with a customer's existing Cisco network, storage, server, and provisioning management systems.

- **Unified Computing Migration and Transition Service:** This service helps you accelerate the adoption and optimal implementation for your business applications on a Cisco Unified Computing System platform. The service can help you smoothly migrate existing applications, modernize them to a new version, and automate them using features of the Cisco Unified Computing System platform and other management applications. Cisco and our partners work with you throughout this process to assess your current application infrastructure, determine and implement an efficient migration strategy while helping to minimize risk, and integrate the Cisco Unified Computing System with your existing IT architecture to increase manageability and simplify application provisioning. The Cisco Unified Computing Migration and Transition Service has three components:

  ◦ Migration: Migrates your existing applications to the Cisco Unified Computing System platform. Custom migration is included for your existing applications to the Cisco Unified Computing System platform. Cisco Advanced Services has developed a proven offering to help you transition ERP infrastructures from legacy, proprietary processing platforms to today's open architectures coupled with pervasive virtualization securely and cost-effectively, to address your business challenges.

    ◦ Oracle migration to Cisco UCS: Our services help you with consolidating, upgrading, and migrating existing Oracle applications such as E-Business Suite, Siebel, PeopleSoft, and databases onto Cisco UCS infrastructure. We help design and optimize comprehensive solutions using Oracle RAC environment on Cisco UCS while exploiting Cisco Unified Computing System features to enhance overall application performance, scale, and resiliency of your application environment.

    ◦ SAP migration: We help you transform your mission-critical business processes and applications by migrating and optimizing your SAP applications suites such as ECC/ERP, CRM, SCM, and PLM to the Cisco Unified Computing System platform, while exploiting Cisco Unified Computing System features to enhance overall application performance, scale, and resilience.

    ◦ Exchange migration: Migrates and optimizes your Microsoft Exchange deployment to the Cisco Unified Computing System platform, while exploiting Cisco UCS features to enhance Exchange performance, scale and resilience.

- ◦ Modernization: Optimizes the architectural design and deployment of packaged applications while upgrading to newer versions.
  - ◦ Management and automation: Assesses current application-management processes and tools and helps you enhance application manageability through orchestration and process automation.
- **Unified Computing Database Accelerator Service:** This service provides forth creation of a roadmap, strategy, and implementation plan for a unified computing-based database service. The Cisco Unified Computing Database Accelerator Service provides expert guidance to obtain optimal use of a Cisco Unified Computing System for the database service and to avoid disruptions during the database implementation and migration.
- **Unified Computing Installation Service:** This service provides installation offal interconnected hardware in your data center from an expert Cisco partner who has extensive experience with complex and virtualized data center environments. The Cisco Unified Computing Installation Service helps you to deploy unified computing in your environment with minimal stress or disruption to your operations. It encompasses compute platforms, network and storage networking devices, interconnects and cabling, and installation and configuration of related network and management software.

Support Services

The more benefits you realize from the Cisco Unified Computing System, the more important the technology becomes to your business. If an issue arises, you want support from dedicated specialists with in-depth expertise in virtualized data center environments, server hardware and software, and unified computing technology.

The Cisco Unified Computing System B-Series Blade Servers and C-Series Rack-Mount Servers are backed by a warranty that includes three-year parts coverage and next business day (NBD) onsite parts replacement eight hours a day, five days a week. The Cisco UCS warranty includes a 90-day software warranty on media. Ongoing downloads of BIOS, firmware, drivers, and Cisco Unified Computing System Manager (UCSM) updates are also included. The Cisco UCSM updates include minor enhancements and bug fixes that are designed to maintain the compliance of Cisco UCSM with published specifications, release notes, and compliance with industry standards.

Cisco SMARTnet Service: Expanding on the Cisco Unified Computing System warranty, the award-winning Cisco SMARTnet® Service helps you increase uptime, quickly resolve issues, and get the most from your unified computing investment. Cisco SMARTnet Service for Unified Computing includes:

- Direct access to the Cisco Technical Assistance Center (TAC), staffed by Cisco professionals certified in a broad range of Cisco technologies. The TAC service request system automatically routes your request to a team of Cisco UCS specialists and escalates your case to the next level of support if it is not resolved within a specified time frame. You also can choose to interact with Cisco TAC engineers by email, telephone, web-based collaboration, and face-to-face using Cisco WebEx® collaboration.
- Triage support: Receive triage support for third-party software integration for all software that is listed on Cisco.com as certified to be interoperable with the Cisco UCS platform.
- Smart, proactive diagnostics: The embedded Cisco Smart Call Home[1] feature offers detailed diagnostics and immediate alerts on enabled Unified Computing products. Smart Call Home continuously monitors hardware health and notifies your IT of issues and remediation recommendations and automatically generates a service request with Cisco TAC in the event of serious issue.

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[1] Smart Call Home is embedded in Cisco UCS B-series products. Cisco UCS C-series products must be managed by Cisco UCSM in order to use Smart Call Home functionality.

- Ongoing software updates[2]: Gain access to ongoing software updates including BIOS, drivers, firmware, and Cisco UCSM for systems with Cisco Unified Computing System Manager.

- Rapid hardware replacement: Always have the coverage you need for each product with flexible hardware replacement options, including 2-hour, 4-hour, and next-business-day (NBD) advance replacement. Global parts delivery is expedited by a global supply chain in at least 128 countries. More than 1100fulfillment depots feature automated parts stocking processes.

- Onsite support: A certified field engineer will travel to your location to replace failed hardware under the optional onsite support.

- Online self-help support: Utilize extensive support resources 24 hours a day,365 days a year through Cisco's online knowledge base, communities, resources, and tools. Automated troubleshooting tools and personalized pages with tools and resources help provide an accelerated resolution. On-demand access to an extensive library of technical documents and resources, peer support communities, and social media to connect with Cisco technical support are available.

Cisco Mission-Critical Support Service: If you are operating critical business applications within the unified computing environment, the Cisco Mission-Critical Support Service provides personalized technical account management and expedited technical support. The Mission-Critical Support Service provides a designated technical account manager (TAM) who acts as a strategic resource to help assure your unified computing environment runs at peak efficiency, while adhering to your business computing strategy and requirements. Should a problem arise that threatens business continuity, the TAM provides crisis management leadership, and your IT staff gets expedited access to Cisco's award-winning TAC through a dedicated phone number. This service, which requires coverage by SMARTnet or Smart Net Total Care, helps you protect your business operations by maintaining the stability and availability of your business-critical unified computing environment.

Remote Management Services: The benefits of data center consolidation, virtualization, and automation are substantial, but transforming a data center environment also creates new operational challenges for IT organizations. Managing virtual environments, including staffing, management tools, application performance, remote office support, and support processes for security, requires new capabilities and expertise. The Cisco Unified Computing Remote Management Services (RMS) and Cisco Advanced Performance Monitoring Service enable your organization to realize immediate benefits from your investment in the Cisco Unified Computing System.

These services provide complete monitoring and management using Cisco's industry-proven practices, networking expertise, and innovative tools. Cisco Remote Management Services are an immediate, flexible management solution. You can out-task proactive monitoring and management for high availability to Cisco experts who will always have the latest Cisco UCS expertise. We function as an extension of your IT team, allowing you to retain control and visibility, stay focused on your core business, and lower your total cost of ownership. These remote management services can be a long-term management solution or a transitional one until you or a trusted partner are ready to assume management responsibilities.

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[2] Support and subscription for third-party software products sold with Cisco Unified Computing hardware is delivered through the Independent Software Vendor Application Services (ISV1 support). ISV1 currently supports VMware vCenter and vSphere 5, BMC Cloud Lifecycle Management, Microsoft Windows Server 2008 ST/NT, 2003 R2 ST, Novell SUSE Enterprise Linux Server v11, and Red Hat Enterprise Linux 5.3.

Cisco Unified Computing RMS provides comprehensive monitoring and management of your Cisco Unified Computing System around the clock. Delivered by an experienced team of Cisco engineers using industry leading tools and IT Infrastructure Library (ITIL®)-based processes, we proactively monitor your unified computing environment, including system hardware, operating systems, virtualization technologies, and supporting network infrastructure for fault and performance events. From our Global Network Operations Center (NOC), we resolve incidents and take the lead in co-managing the network as an extension of your IT team. Cisco Unified Computing Remote Management Services provide physical and logical monitoring and management of all unified computing hardware and software elements. The services are composed of flexible monitor and notify, standard, and elective elements that may be combined to deliver a customized solution to meet your needs:

- **Monitor/Notify Service:** Provides physical and logical monitoring for all unified computing hardware and software elements, including operating systems and virtual machine environments. The Cisco Unified Computing Monitor and Notify Service offers around the clock automated event correlation and notification of all events detected, coupled with access to historical reporting for trending analysis.

- **Standard Service:** Building on the Monitor and Notify Service, the Cisco Unified Computing Standard Remote Management Service adds incident management, problem management, and service-level management to the physical and logical monitoring of all unified computing hardware, software, and virtualization elements. Virtualization management provides logical instrumentation for monitoring and managing all VMware instances and associated tools, including Virtual Center, DRS, and high availability, coupled with a robust report suite and capability to track vMotion instance movement. Standard Service provides remote monitoring, incident management, problem management, and service-level management for the Cisco Unified Computing System. The service manages instances of operating systems (Microsoft, Linux) as well as virtual machine environments.

- **Elective Service option:** Provides access to Cisco engineers to support change, release, configuration, and patch management. Delivered as a usage-based block of monthly hours, the Cisco Unified Computing Elective Remote Management Service option allows you to use Cisco expertise for customer-requested activities and changes to your unified computing environment.

The Cisco Advanced Performance Monitoring Service augments the remote management services just described with a means to baseline and monitor performance of business-critical applications across your network. This service provides service-level agreement monitoring of application response time, fault isolation, and reporting. It also gives critical visibility into application packets as they flow through your network to and from the data center.

When you use the Cisco Unified Computing System to consolidate, virtualize, or automate your data center, you can unlock extraordinary technical and operational benefits.

Cisco Data Center Optimization Service for UCS

To meet your users' ever-changing demands for responsiveness, application performance, and efficiency, your data center and unified computing architecture must be able to adapt and evolve with your dynamic business. The Cisco Data Center Optimization Service provides a suite of recurring, subscription-based service options to help you continually optimize your operational efficiency, achieve peak performance of data center resources and applications, and apply industry best practices to the operation of your environment.

This service covers all aspects of your data center, including:

- End-to-end architecture and virtualized environment
- Application distribution and delivery
- Application network performance
- Unified computing systems and server virtualization
- Storage area networking
- Unified switching fabric

To help you maintain optimal performance of your unified computing systems, you can also choose just the Cisco Data Center Optimization Service for UCS. This service includes four unified computing options:

- Architecture review helps your Cisco Unified Computing System to continue to meet your business requirements. The review includes an analysis of primary performance metrics.
- Configuration and performance audit provides a comprehensive data capture and review of the current configuration parameters of the Cisco Unified Computing System and a comprehensive capacity and performance review of your system by examining primary performance data.
- Disaster recovery review establishes disaster recovery capabilities to enable configuration recovery, targeting server image and applications.
- Best practices audit provides ongoing expertise and support to help optimize your unified computing environment. You may select from stateless computing, server virtualization mobility and management, database accelerator/migration, management systems integration, and virtual desktop infrastructure.

Drawing on Cisco's broad experience optimizing virtualized environments, both internally and for our largest and most successful customers, these optimization services help you to continually improve the performance and availability of your data center and Cisco UCS resources, reduce risk, and achieve operational excellence.

Cisco Security Services

Virtualization introduces profound changes in servers and data centers. Although these changes can be hugely beneficial, they may also present new potential attack vectors, as well as new opportunities for misconfiguration or error. Cisco Security Services protect your business by helping you ensure that your virtualization strategy is based on industry best practices for security, as well as on the years of experience from Cisco and its trusted partners in data center environments.

Cisco Data Center Services help you consolidate, virtualize, and automate your data center to meet business goals, increase efficiency, and lower operating expenses.
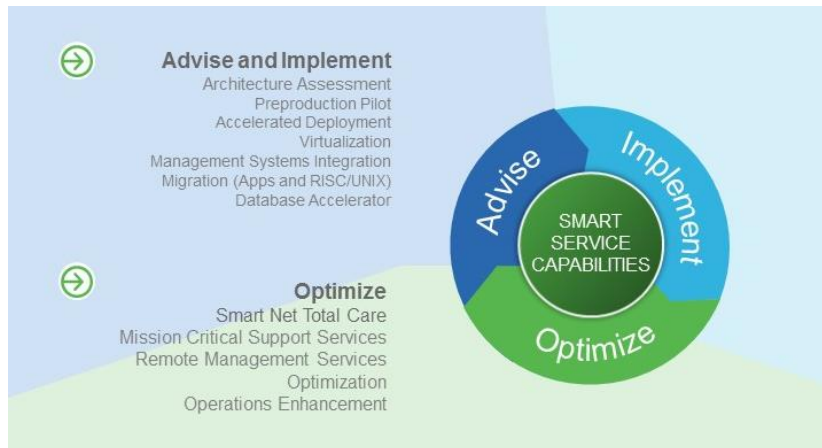
Cisco Data Center Services

Even if unified computing is central to your virtualization strategy, your data center encompasses a broad range of other critical infrastructures and processes beyond the Cisco Unified Computing System. Cisco Data Center Services help you consolidate, virtualize, and automate your data center to meet business goals, increase efficiency, and lower operating expenses. Whether you want services for your entire data center or for specific data center technologies, Cisco offers a broad array of data center services to meet your needs, including:

- Strategic IT and architecture services to help you prepare a strategy for your data center initiative
- IT planning, design, and implementation services to help you implement your strategy
- Technical support and operations management services to help you maintain the health of your data center

- Optimization services to help you maintain a high level of performance as your data center evolves
- Efficiency and facilities services to help you adopt a greener IT strategy and design and build out efficient data center facilities

Cisco's unique architectural approach provides a unified view of data center resources, empowering you to tune your data center environment for optimal application performance and availability. Figure 1 illustrates some of the Cisco Data Center Services capabilities available to meet the business and technical needs across your data center lifecycle.

Figure 1.   Cisco Data Center Services Capabilities

A Global Network of Partners

Cisco and our partners deliver complete data center solutions to help you respond more quickly to business opportunities and challenges. In addition to our worldwide channel partners, Cisco data center partners include system integrators who provide complete business solutions, technology partners who provide specialized expertise, and global partners who enable us to scale worldwide. Drawing on years of experience working with many of the largest enterprises in the world, Cisco and our partners are ideally suited to lead data center initiatives in complex, multivendor environments.

Benefits of Cisco Unified Computing Services

Cisco Unified Computing Services combine Cisco's broad data center expertise with that of our industry-leading partners to accelerate your transition to a unified computing architecture. These services help you:

- Achieve your business goals by aligning your data center strategy with your unique business and technical objectives
- Speed deployment and mitigate risks of virtualization and other data center projects by applying best practices and methodologies
- Enhance your agility by improving the mobility and manageability of traditional and virtual workloads and enabling just-in-time provisioning of resources
- Lower operational costs by identifying opportunities to reduce data center complexity and simplify management

- Optimize the uptime, performance, and efficiency of unified computing systems to help maximize the value of your investment
- Provision new applications more quickly
- Strengthen in-house expertise through knowledge transfer and mentoring
- Improve application performance and availability to meet service-level agreements

Why Cisco Data Center and UCS 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 smart, personalized services that accelerate the transformation of your data center. Using 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 Unified Computing Services are widely available. For availability in your area, check with your local Cisco representative or Cisco partner.

For More Information

To find out more about Cisco Unified Computing Services, visit http://www.cisco.com/go/unifiedcomputingservices.

To learn more about our comprehensive portfolio of Cisco Data Center Services, visit http://www.cisco.com/go/dcservices or contact your Cisco service account manager.

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