Cisco Data Center Plan and Build Services for Desktop Virtualization, Formerly Known as Cisco Data Center Desktop Virtualization Planning and Design Service

Accelerate your transition to an infrastructure that provides an optimal virtual desktop user experience from anywhere, using any device, over any medium.

The Cisco Data Center Plan and Build Services for Desktop Virtualization help you design an optimal, secure end-to-end desktop virtualization solution and develop a plan for rapid migration with minimal business risk.

Today's IT organizations are struggling to reduce desktop costs while preserving access to applications and network resources. An increasingly popular solution is replacing the traditional desktop environment with a virtual desktop infrastructure (VDI). The VDI solution hosts virtual desktops in the data center, which users access through physical endpoint devices, providing end users a portable PC desktop experience. These endpoint devices have a minimal software footprint and are less expensive, easier to administer, and more secure than traditional PCs. The true benefit of VDI, however, is that each virtual desktop becomes an endpoint in the enterprise cloud. Moving desktops into the cloud architecture lets IT administrators deploy and provision new applications more quickly and extend application services to external parties while controlling access to sensitive resources.

Many virtual desktop solutions are limited to enterprise applications and lack the ability to adequately support rich services such as video, voice, and collaboration. To meet these needs, Cisco also offers a Virtualization Experience Infrastructure (VXI) solution that extends VDI to deliver rich services. Together, these VDI and VXI solutions comprise Cisco's Desktop Virtualization (DV) portfolio.

A properly implemented DV solution delivers an easily manageable, cost-effective desktop environment with reliable, LAN-like performance while providing more protection for your information and intellectual property, increased workplace effectiveness, and lower total cost of ownership. The challenges facing many organizations are the necessary resources and expertise to design a comprehensive desktop virtualization solution that integrates the network, data center, desktop computing, rich media applications and storage infrastruc-tures. Without proper deployment, desktop virtualization can affect response times and limit user productivity.

The Cisco® Data Center Plan and Build Services for Desktop Virtualization provide the expertise to help you design and implement a reliable DV solution that fits your IT strategy and user requirements.

Planning and Design Are Fundamental to Success

During the Cisco Data Center Plan and Build Services for Desktop Virtualization, skilled Cisco data center and collaboration architects will work with you to design a secure, end-to-end virtualization solution and develop a migration plan that facilitates rapid project implemen-tation. The process includes evaluating desktop virtualization opportunities, assessing primary applications for fit, developing an operationally viable strategy, creating a phased roadmap to implementation, and supporting you through design and deployment.

Integrating design, development, and deployment into a cohesive process managed by subject matter experts reduces the risk of design errors and costly migration delays. Subject matter experts also work with you to make sure that your deployment reduces operating costs, improves desktop management, and extends security and disaster recovery to your desktop environment. You will realize a better return on your IT infra-structure virtualization investments in unified computing, unified communications, col-laboration applications, and application networking services.

The Cisco Data Center Plan and Build Services for Desktop Virtualization complement the Cisco Data Center Assessment Service for Desktop Virtualization, formerly known as Cisco Desktop Virtualization Strategy Service. Together, these services can help you accelerate virtualization deployment and realize the full potential of your desktop solution.

The Cisco Data Center Plan and Build Services for Desktop Virtualization consist of the following components:

- **Desktop Virtualization Planning:** Evaluates the consolidation and virtualization opportunities against your current desktop infrastructure, rich media applications and management systems to help you better understand the benefits and costs of migrat-ing to a virtualized desktop infrastructure using Cisco and third-party virtualization technologies.
- **Desktop Virtualization Design and Implementation:** Creates a high-level design for your desktop virtualization solution and a plan for your physical-to-virtual migration process involving complementary Cisco and third-party solutions.
- **Desktop Virtualization Operations Management:** Provides a full range of underlying operations capabilities for your desktop virtualization solution as well as consulting and engineering services.

Desktop Virtualization Planning

Evaluate opportunities to reduce your desktop management costs by virtualizing desktop systems, improving security, and maintaining a secure, high-performance environment. This service com-ponent evaluates the gaps between your current desktop, server, network, voice, video and storage infrastructure and a next-generation, consolidated, virtualized compute infrastructure based on the Cisco Unified Computing System. In addition, the service defines the actions required to close these gaps so you can achieve the best possible return from your existing resources and virtualization investments.

Desktop Virtualization Design and Implementation

Create a high-level design for your virtualization architecture and a complete migration plan to guide you through a successful virtualization solution deployment. The high-level design includes a physical-to-virtual migration plan and addresses your specific migration requirements. The following services are also available:

- Test and validate your pilot solution
- Identify product acquisition needs
- Stage and validate the DV solution
- Implement DV solution over a phased timeframe

Desktop Virtualization Operations Management

Get operations consulting and engineering services for your desktop virtualization solution. This service component supports the development of a customized DV operations architecture, providing the framework, processes, procedures, and policies needed to run your DV solution. We start with a operations assessment and strategy and provide an actionable operations blueprint that facilitates the deployment. The service module is designed to:

- Address DV operations management needs at your data center(s)
- Reduce any operational risks associated with your DV implementation
- Help transform your organizational model from technology silos to integrated service oriented teams

Table 1 lists service activities, deliverables, and benefits.

Table 1. Cisco Data Center Plan and Build Services for Desktop Virtualization Activities, Deliverables, and Benefits

Activities and Deliverables	Benefits
Desktop Virtualization Planning	
Requirements Gathering: • Interview stakeholders across the IT organization using a workshop-based methodology. • Gather requirements with a top-down approach, using interviews and customer-provided documentation. • Review existing IT documents and infrastructure diagrams. **Deliverable:** • Customer requirements document (CRD)	• Helps you identify technology and business requirements that affect the virtualization design • Identifies business factors and defines objective success criteria • Estimates cost savings and productivity gains for better informed decision making

Desktop Infrastructure Assessment (consolidation and virtualization), Network Discovery, and Network Infrastructure Assessment Interview appointed personnel within your organization · Install data collection tool for infrastructure inventory (remote and data center), including network, compute, storage, application. · Analyze data and provide inventory of: – Enterprise network, server, voice, video and storage environment – End-user desktops and user profile requirement for DV including security and compliance policies – Custom and standard applications including UC and Collaboration – Identify and define relationships and dependencies between components. Assess health of current virtual infrastructure and recommend optimization opportunities · Implement an operational gap analysis that recommends how your network infrastructure (remote office and data center), compute infrastructure, voice, video, storage infrastructure, and WAN transport can be reconfigured to help increase the return on your desktop virtualization investment. **Deliverable:** Assessment report of findings and recommendations for enhancing your existing environment, including a review of the following IT infrastructure technologies: · Systems and performance data analysis on existing user desktop infrastructure · Network (Layer 2/Layer 3 infrastructure) · Network transport (WAN) and application call flows infrastructure · Security networking (firewall design) · Server load balancing · Web caching within the data center · Secure Sockets Layer (SSL) offload · Traffic flow and Security design Optimization for UC and Collaboration applications · Physical server and desktop virtualization models · Storage infrastructure	· Helps you prepare to implement a next-generation, service-oriented data center architecture · Helps you understand how to maintain a stable virtualized desktop environment based on Cisco best practices · Helps you prepare for successful deployment of UC and Collaboration applications

Data Center Operations Management Assessment Enables customers to more easily adopt, build, and operate DV by providing low-risk operations implementation capabilities through Data Center Operations Management services: · Gather customer requirements and assess the customer's operations management capabilities, utilizing a combination of remote and on site interviews, questionnaires as well as workshop(s) to assess these capabilities. · Develop a strategy for the future state infrastructure for operations management. · Perform and document a gap analysis between the customer's current operations management capability and strategy for the required future state infrastructure for operations management. · Review with customer the DV operations assessment document for comments and approval before it is formally completed and released. **Deliverables:** · DV operations assessment document, comprising: – Customer Ops Requirements – Operations Management Assessment – Future State Blueprint · Operations Transformational Roadmap with Gap Analysis	· Delivers a complete DV Operations Design Specification based on a full and thorough understanding of the customer's requirements, minimizing the potential need for rework at a later juncture. · Makes sure that all operational facets (people, process, governance, metrics, tools and organization) are included in the Blueprint, assuring fitness for purpose. · Improves the business value of IT operations by making sure business requirements are fully met within the operational framework from the ground up.
Desktop Virtualization Design and Implementation	
High-Level Design Architecture Development · Conduct targeted design workshops. · Create a high-level architecture design for data center (compute, network, voice, video and storage), WAN transport, and Desktop Virtualization. · Define relationships and dependencies between components including network resiliency, redundancy, and high availability within and across the data center **Deliverable:** · Cisco high-level design document	· Helps you create an end-to-end virtualized architecture covering network, data center, voice, video and optimized Desktop Virtualization · Helps you create a comprehensive solution that decrease IT costs while maintaining application performance · Increases end-user satisfaction with new technology by taking advantage of best practices for architectural design

Desktop Virtualization Pilot • Develop onsite proof-of-concept plan for efficiently creating, provisioning, and managing virtual desktops. • Create a prototype environment. – Use case and test definition – Installation of UC client applications on supported Hardware for VD – User selection workshop – End-user survey creation – Single or multiple prototype environments • Clearly define and document objectives. **Deliverables:** • Requirements and success criteria documentation • Pilot testing results • Next steps and recommendations	• Provides formally documented results that are invaluable contributions to the start of the enterprise-wide planning and design for production deployment • Facilitates the development and successful execution of a comprehensive project • Provides UC and client applications experience prior to production rollout • Facilitates knowledge transfer and enables user testing • Offers formal approach and discipline that lead to less effort and higher project efficiency • Results in less time required envisioning success criteria and validation testing to prove successful attainment
Low-Level Design Development • Create a customized virtualization infrastructure design including step-by-step deployment plan; steps include: – Create a low-level design for data center (compute, network, voice, video and storage), WAN transport and Desktop Virtualization (including physical-to-virtual migration). – Develop deployment guidelines to avoid pitfalls that can stall or slow deployment. **Deliverables:** • Cisco low-level design document • Configuration template for third-party solution	• Accelerates rollout and mitigates risk with detailed design and planning documents, including a configuration blueprint built for your environment based on proven methodology • Reduces expensive, time-consuming redesign by creating a well-engineered, end-to-end virtualization design and reference architecture using best practices
Migration and Implementation Plan • Develop and execute step-by-step migration and implementation plan recommended by Cisco. • Identify ongoing concerns that affect deployment or migration of the recommended designs. **Deliverables:** • Desktop virtualization migration and implementation plan • System test plan and runbook	• Speeds time to deployment with knowledge transfer of proven best practices in the area of Cisco and third-party platform by experienced consultants • Accelerates deployment with a detailed desktop virtualization infrastructure plan • Accelerates enhanced infrastructure availability, security, performance, scalability, and manageability and provides a plan for next steps

The Cisco Data Center Assessment Service for Virtualization Operations Management, formerly known as DV Data Center Operations Management service module starts with the development of the Day 2 DV Operations Delivery Model, while making sure that all operational facets (people, process, governance, metrics, tools and organization) are included in order to improve the business value of IT operations, making sure business requirements are met within the operational framework.

Activities consist of:

- Develop a Day 2 DV Operations Delivery Model to support the DV implementation.
- Develop the Day 2 DV Operations Design Specifications based on understanding of the Customer's requirements.
- Review with Customer the Day 2 DV Operations Design Specifications and Test Plans for comment and approval before it is formally com-pleted and released.
- Develop the DV Operations Implementation Plan that enables imple-mentation of the new Day 2 DV Operations Delivery Model.
- Develop a complete set of Day 2 DV Operational Documentation, consisting of Standard Operating Procedures, runbooks, Policies, and implementation Test Plans.

Deliverables:

- Day 2 DV Operations Delivery Model
- DV Operations Design Specifications
- DV Operations Implementation Plan
- DV Operational Documentation (consisting of Standard Operating Procedures, runbooks, Policies and Test Plans)

- Implements a fit-for-purpose DV Operations Model tuned to the requirements of the business.
- Maximizes IT Operations productiv-ity through the implementation of a tuned organizational model, with best-practice processes tying organizations together.
- Employs the DV Data Center Assessment deliverables to develop and implement the fit-for-purpose DV production environment

Benefits

The Cisco Data Center Plan and Build Services for Desktop Virtualization provide comprehensive support for migrating your desktop environment to a optimal, secure virtual desktop environment. Taking advantage of this service can help you:

- Enhance application availability, security, scalability, performance, and manageability using any-to-any connectivity
- Deliver IT services over your WAN with LAN-like performance
- Increase the effectiveness of virtual desktop solutions by designing and deploying an end-to-end network, desktop, storage, server, and application-delivery architecture including rich media.
- Manage risk by working closely with subject matter experts in networking and virtualization

Cisco Expertise

The Cisco Data Center Plan and Build Services for Desktop Virtualization is delivered by industry experts who can simplify your transition to a virtual desktop environment. Cisco data center architects are among the industry's elite in providing virtualization solutions that span the entire enterprise infrastructure, including virtual desktops, branch offices, WAN transport design, data center infrastructure, and storage networks. In addition, Cisco provides experts in unified communications, collaboration applications and video. Cisco architects typically hold multiple technology certifications and have deployed, secured, operated, and optimized the performance of many of the largest IT organizations in the world.

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.

Follow-On Services

Data center environments are complex. To help you optimize your dynamic data center environment, Cisco offers the Cisco Data Center Optimization Service. This service offers assessment, support, and learning activities for your end-to-end data center architecture, application distribution and delivery, application network performance, unified computing systems, storage area networks, and unified switching fabric. You can use these building blocks to attain a uniquely holistic view of all your data center functional areas and their effect on operational management through virtualization and segmentation. Service activities guide you through the process of creating an end-to-end data center architecture that can quickly absorb technology innovations, meet your ongoing business needs, and reduce costs.

Availability

Cisco Data Center Plan and Build Services for Desktop Virtualization is widely available. Contact your local Cisco account manager about availability in your area.

For More Information

For more information about the Cisco Data Center Plan and Build Services for Desktop Virtualization, 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.

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