

Cisco Data Center Facilities Planning and Design Service

Design an agile data center that can meet your environmental, security, and compliance requirements.

Service Overview

Supporting Complexity and Agility

A successful data center implementation requires specialized planning and design service that are far different from those required for a traditional commercial space. Unlike most commercial facilities, data centers must respond extremely quickly to changing business needs, environmental conditions, security threats, compliance requirements, and future changes in an unknown and uncertain future. Data centers must also adapt to frequent changes in network components to support continued high availability, utilization, and efficiency. Providing this high level of reliability and agility in the complex environment of data centers demands specialized knowledge and



Planning and Design Services to Meet Your Facility Requirements

- Align business strategies with physical infrastructure elements such as site location, power, cooling, fire protection, and security
- Solicit realistic, solid bids from contractors for construction of the facility based on detailed design documents
- Retain qualified, appropriate vendors for the project
- Make sure that system installation by contractors and partners is done according to approved plans

experience. Done correctly and with forethought, designing, moving, or updating your data center can result in a facility that is readily adaptable and highly cost-effective for the long term.

Creating Reality from Requirements

The Cisco® Data Center Facilities Planning and Design Service evaluates your requirements, including the overall site power, cooling, physical security, and operational practices.

The Planning and Design Service matches your requirements for reliability and resilience with a cost-efficient design that results in a facility that is both modular and expandable. Through proper programming and conceptual design, you will have complete control over the features of your finished data center. This Cisco Service specializes in data center design and is delivered by professionals with expertise in this area. The critical final phase of the delivery of the data center by the Cisco team is the integrated testing and commissioning of all the critical systems. This phase allows you to bring your IT equipment online with the confidence that once you “go live” you can stay online without interruption.

The Cisco Data Center Facilities Planning and Design Service is a modular offering with six service components that can be purchased as needed:

- **Prepare and plan:** Establish baseline goals for the built facility utilizing the business goals and requirements.
- **Solution development:** The high-level goals and criteria established during the prepare and plan are brought to construction-level detail and communicated in a series of construction documents.
- **Qualification and evaluation:** Cisco consultants will review the return bid and prepare summary proposal documentation, and schedule the most appropriate vendor for the project.
- **Project management:** Facilitate communication channels and oversee the design team to make sure all parties are working toward the client goals in an effective, efficient manner.
- **Project oversight:** During implementation the design team will review the constructed facility at several stages to verify it is being built in strict compliance with the design documents and design intent.
- **Audit and project sign-off:** Review the installation and testing reports at the completion of construction to validate the client receives the data center architecture that best suits their needs.

Prepare and Plan a Resilient Data Center

This service component can help you evaluate your data center facilities requirement so you can create a conceptual design and a preliminary budget. (See Table 1.)

Table 1. Prepare and Plan Benefits, Activities, and Deliverables

Benefits	
Preparing and planning help you to: <ul style="list-style-type: none"> • Understand the exact data center requirements • Create the basis of design to define the requirements and goals of the project • Create a preliminary budget 	
Activities	Deliverables
<ul style="list-style-type: none"> • Working with the customer to understand its environment and to qualify its requirements • Carry out a design workshop and craft a high-level business requirement summary document • Review the high-level business requirement summary document with the customer • Review risk analysis and design requirements 	<ul style="list-style-type: none"> • Conceptual design • Initial budgetary cost report

Solution Development

This service component translates the risk analysis and design requirements into detailed design solutions that address your reliability and performance requirements. The deliverable is a vendor-neutral, detailed design document that addresses facility issues such as heating, ventilating, and air conditioning (HVAC) requirements, fire detection and suppression, lighting, and power requirements. This document will provide sufficient detail to analyze the project scope and cost. (See Table 2.)

Table 2. Solution Development Benefits, Activities, and Deliverables

Benefits	
Solution development helps you to: <ul style="list-style-type: none"> • Fully cost and scope the project • Identify and communicate equipment to be installed • Develop a vendor-neutral document 	
Activities	Deliverables
<ul style="list-style-type: none"> • Work with the customer to translate the high-level business requirements summary and initial design requirements into a detailed design to meet the objectives of the targeted reliability performance level • Carrying out a design workshop and craft a detailed data center physical infrastructure (DCPI) design document • Review the DCPI design document 	Detailed DCPI design document

Qualification and Evaluation

This service component is a crucial step for designing a data center, and Cisco provides the expertise in this area. Cisco will prepare requests for proposals or tenders to the vendors and review the returned bids in order to get the most appropriate vendor for the project and to make sure of industry compliance products for you. (See Table 3.)

Table 3. Qualification and Evaluation Benefits, Activities, and Deliverables

Benefits	
Qualification and evaluation help you to: <ul style="list-style-type: none"> • Retain qualified, appropriate vendors for the project • Create a solution using products that meet industry compliance requirements • Mitigate risks associated with inexperienced contractors 	
Activities	Deliverables
<ul style="list-style-type: none"> • Craft and provide bill of quantities (BoQ) with specification for the requirements defined in the DCPI design document for procurement by customer • Prequalify vendors for the supply, installation, and implementation of the materials specified in the BoQ • Craft and provide the technical specification and request for proposal (RFP) documents for release by the customer • Review RFP responses from vendors in collaboration with the customer for compliance with technical requirements specified in the DCPI design document • Assist in vendor selection based on customer decision criteria 	<ul style="list-style-type: none"> • BoQ document with specification • Technical RFP/tender • Summary reports on returned tender/RFP

Project Management

This service component can provide a program manager to coordinate various activities during the engagement and help ensure that you receive deliverables in a timely manner. (See Table 4.)

Table 4. Project Management Benefits, Activities, and Deliverables

Benefits	
Project management helps you to: <ul style="list-style-type: none"> • Receive deliverables in a timely manner and help ensure proper coordination between different verticals • Reduce the burden of the owner to oversee all parties involved. • Know the effects of each step taken from a neutral perspective acting on your behalf 	
Activities	Deliverables
<ul style="list-style-type: none"> • Provide a list of designated Cisco roles and responsibilities for the various project aspects • Provide a project management plan (PMP) • Work with customer to identify project dependencies, risks, and issues associated with the successful completion of project and certification • Provide a project schedule highlighting all deliverables and appropriate milestones, outlining the planned events of the project, showing resource, time scales, and milestones • Participate in regularly scheduled project review meetings or conference calls, if required • Provide customer the details of personnel requiring access to customer premises • Deliver a weekly project status report • Deliver electronic documentation • Provide end of project report on project completion • Provide follow-on actions, lessons learned, and exception reports (if necessary) on project completion • Act as the focal point for change management procedure under this statement of work (SoW) 	<ul style="list-style-type: none"> • Status report for different activities

Project Oversight

Cisco will review different activities during implementation and make sure system installation by contractors and partners is done in accordance with approved plans. This service component compares the implemented facility against the detailed data center design and reports any discrepancies. (See Table 5.)

Table 5. Project Oversight Benefits, Activities, and Deliverables

Benefits	
Project oversight helps you to: <ul style="list-style-type: none"> • Make sure system installation by contractors and partners is done in accordance with approved plans • Identify areas of concern while still able to correct the issues at minimal cost • Validate and help ensure the quality of workmanship 	
Activities	Deliverables
<ul style="list-style-type: none"> • Help ensure compliance with the DCPI design document specification • Perform inspection of the installation and implementation carried out by vendors and/or partners to make sure that it meets with the required quality standards and DCPI design document specifications • Provide a report for each vendor upon completion of implementation specifying compliance or noncompliance with the DCPI design document • Update DCPI design document as necessary 	<ul style="list-style-type: none"> • Audit report for different activities as specified in the detailed DCPI design document

Audit and Project Sign-Off

This service component validates that the design and installation will operate as intended, using a sequential, reinforcing, nonredundant set of activities. (See Table 6.)

Table 6. Audit and Project Sign-Off Benefits, Activities, and Deliverables

Benefits	
Audit and project sign-off help you to: <ul style="list-style-type: none"> • Reduce time to production • Confirm and document the project has met the criteria set 	
Activities	Deliverables
<ul style="list-style-type: none"> • Audit the data center upon completion for compliance with the detailed DCPI design document specification • Help ensure project documentation from vendors is of a mutually acceptable standard • Provide a data center tier validation report 	<ul style="list-style-type: none"> • Onsite project verification and audit report • Tier validation report • Project sign-off document

Benefits

The Cisco Data Center Facilities Planning and Design Service helps ensure that your new infrastructure meets your reliability and capacity goals and can scale to meet your future requirements. The service can help you:

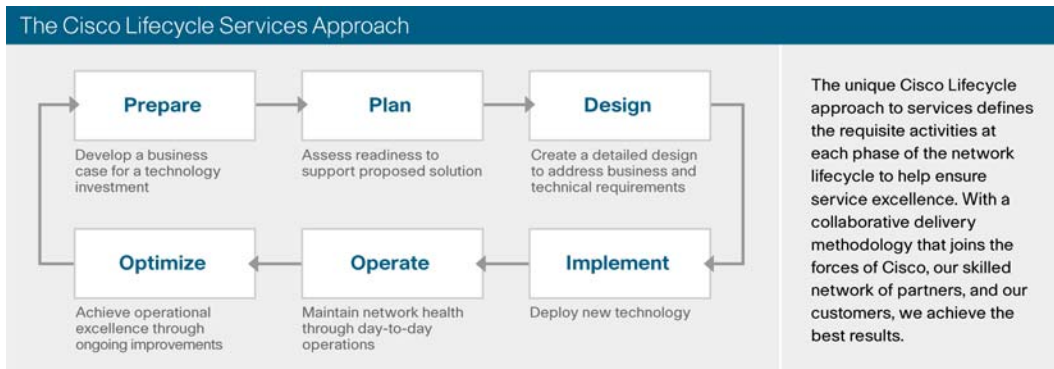
- Combine business strategies with physical infrastructure elements such as site location, power, cooling, fire protection, and security
- Receive deliverables in a timely manner and help ensure proper coordination between different verticals
- Work as an integrated team to define the requirements and goals of the project
- Solicit realistic, solid bids from contractors for construction of the facility based on detailed design documents
- Retain qualified, appropriate vendors for the project
- Make sure system installation by contractors and partners is done in accordance with approved plans
- Confirm and communicate to the owner that the project has met the criteria set

Why Cisco Services

Cisco Services make networks, applications, and the people who use them work better together.

Today, the network is a strategic platform in a world that demands better integration between people, information, and ideas. The network works better when services, together with products, create solutions aligned with business needs and opportunities.

The unique Cisco Lifecycle approach to services defines the requisite activities at each phase of the network lifecycle to help ensure service excellence. With a collaborative delivery methodology that joins the forces of Cisco, our skilled network of partners, and our customers, we achieve the best results.



Cisco and Cisco Partner Expertise

The Cisco Data Center Facilities Planning and Design Service includes activities and deliverables that support the preparation and planning phases of the Cisco Lifecycle Services approach. The service is provided by the Cisco Advanced Services team and qualified Cisco partners with extensive expertise in data center facility design, using industry standard best-practice methodologies and advanced tools to design facilities. These experts are among the industry's elite in providing integrated, collaborative, adaptive solutions. They typically hold one or more Cisco certifications and have deployed, secured, operated, and optimized the performance of many of the largest and most successful networks in the world. Through their access to the deep engineering expertise of the business units that create Cisco products and solutions, Cisco experts and partners can help you deploy a solution that is consistent with Cisco product roadmaps.

Availability and Ordering

The Cisco Facilities Planning and Design Service is widely available as a statement of work (SOW) based service. Check with your local Cisco representative for availability in your area.

For More Information

For more information about the Cisco data center services that can help you gain the most return from your data center investment, visit www.cisco.com/go/dcservices or contact your Cisco service account manager.

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