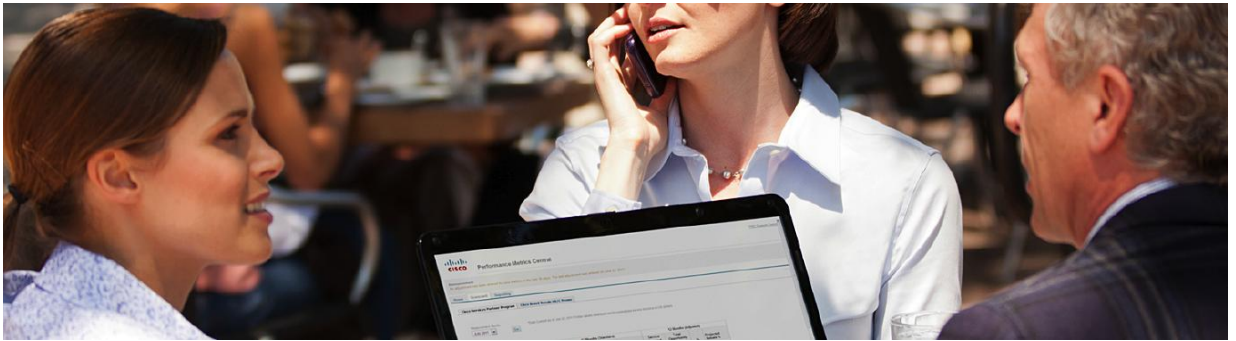# Cisco Data Center Services for OpenStack

Use Cisco Expertise to Accelerate Deployment of Your OpenStack Cloud Operating Environment

Why OpenStack?

OpenStack™ is an open source cloud operating system for building highly scalable public and private clouds. Cisco is one of the leading members and contributors to the OpenStack community, with Cisco in particular investing in creating the "Neutron" networking component. OpenStack delivers a flexible and extensible cloud operating system, accompanies by all the benefits of open source supported by leading organizations including Cisco and Red Hat.

Why Cisco for OpenStack?

As an OpenStack Foundation Gold Member, Cisco has committed to further OpenStack development. Indeed, OpenStack is one part of a broader Cisco® strategy to create open, programmable networks.

Cisco has developed the OpenStack core networking service ("Neutron", formerly called "Quantum"). Given this, coupled with Cisco's leadership position in cloud, cloud orchestration, and associated services, Cisco Services are best placed to help adapt and extend OpenStack to integrate tightly with your Cisco infrastructure and cloud architecture.

Investment in Your Engagement

Cisco offers a comprehensive range of services to help customers plan, build and manage cloud environments. Cisco Services consultants use proven methodologies and tools to help in each of these areas. The up-front investment in developing such services methodologies should not be underestimated - typically many hundreds and indeed in cases many thousands of man hours are invested in the development of Cisco Services methodologies and tools. Customers therefore can rest assured that when a Cisco Services consultant arrives at the start of the Cisco Data Center Services for OpenStack, or any Cisco Service for that matter, that they are benefiting from much more than just the time the consultant spends on their specific project. In addition to the proven methodologies and tools, the consultant will already have invested time in planning and preparing for the engagement, and is supported by a global virtual team of experts who share knowledge in Cisco's unique collaborative approach across both the services and R&D organizations. Not only does this make sure that any customer specific challenges receive analysis from a global team of experts, Cisco's approach makes sure that customers gain unique insights and intellectual property into the products, technologies and solutions relevant to their business challenges.

Cisco Domain Ten[SM]

Cisco Domain Ten[SM] is a framework to guide any data center transformation project. This comprehensive approach guides Cisco Services consultants in how they approach the requirements for your OpenStack projects, to make sure no key area is left unconsidered.
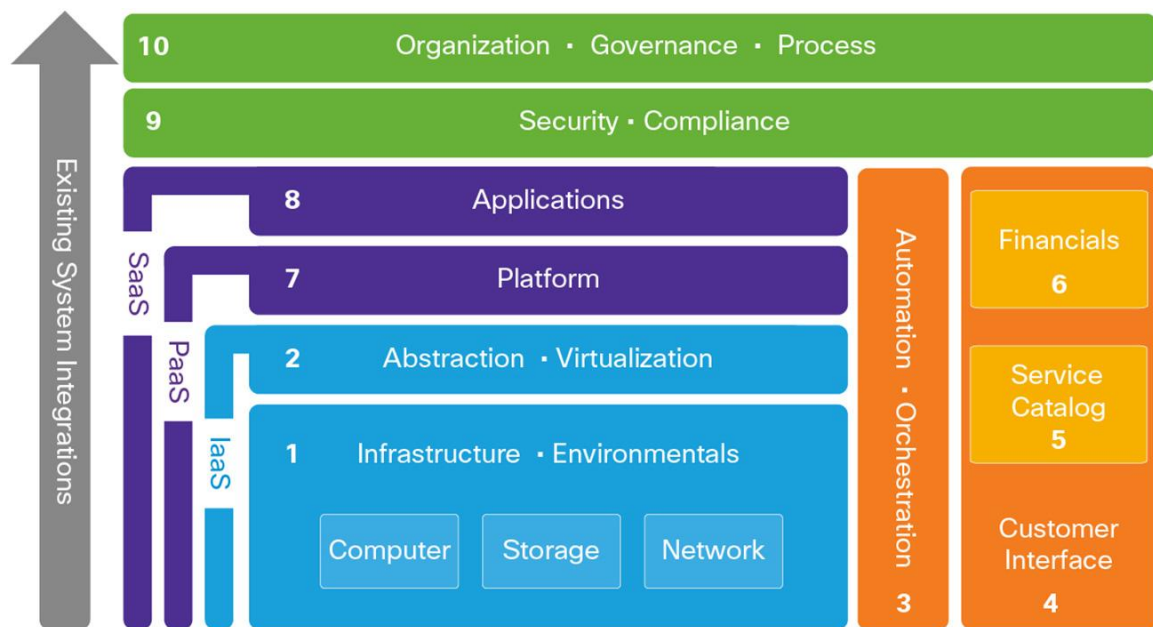
Available Deployment Service Options

Cisco Services offers two primary OpenStack deployment service options, each of which is aligned with common customer needs:

1. **Assessment and Validation:** This service helps get you up and running with a pilot OpenStack installation in a rapid timeframe, so that you can test and validate the solution in your lab with your data center environment. This service concludes with an assessment, performed by Cisco experts, of your options in moving forward from this point with OpenStack in line with your data center and cloud vision, strategy and requirements.

2. **Design and Deployment:** Tuned precisely to customer requirements, this service delivers significant customer-specific customization, coupled with optional pre-defined enhancements.

Figure 1, following, presents a graphic snapshot of available deployment service options

Figure 1.   Cisco OpenStack Professional Services Options

Cisco OpenStack Services – Portfolio at a Glance

Portfolio	Problems Solved	Key Deliverables	Key Benefits
Strategy and Assessment*	✓ Is OpenStack the correct Platform for my business? ✓ What are my key requirements for OpenStack?	✓ Strategy Assessment high level roadmap and architecture ✓ Prioritization of use cases	✓ Understand role of OpenStack in your DC/Cloud strategy
Assessment and Validation	✓ Rapid deployment ✓ Experimentation & learning ✓ "Where next" steps outlined	✓ Pre-defined design ✓ Test plan ✓ Knowledge Transfer ✓ (Optional) Assessment Report	✓ Experiment with OpenStack installation in your data center environment
Design & Deployment+	✓ How to create or add production safety, availability and scale to my OpenStack deployment	✓ Network Scale and High availability design ✓ Storage Integration ✓ Cell deployment design	✓ Accelerate production readiness ✓ Optimally deployed on Cisco hardware
Optimization+	✓ Ongoing custom application assistance ✓ Topology and requirements evolution	✓ Design review ✓ Software upgrade procedures ✓ Day 2 Support for customized deployments	✓ Ensure deployment evolution ✓ Targeted support expertise for your customized solution

*Part of Cisco Cloud Strategy Service

Using Cisco Services consultants' expertise, these services will enable your team to use the unique experience that Cisco has acquired as being a major contributor to the OpenStack open source initiative - Cisco has been the major contributor to the "Neutron" networking component of OpenStack. Additionally, these Cisco Services consultants bring unique insights into cloud services definition, cloud architecture design, and cloud operating system challenges and best practices.

These services accelerate implementation and time to value of your OpenStack solution, resulting in a better cloud experience for your end users and customers, while driving down those costs and risks associated with new technology adoption and cloud design scaling.

Optimization Service

The Optimization service is targeted towards growing, maintaining and evolving your OpenStack environment as well as additional cloud application development assistance, and OpenStack API integration.

Which Service Is Most Appropriate for You

In deciding which service meets your specific needs, Cisco Services experts evaluate the organization's business and technical requirements and cloud architecture, with the objective of reducing project risk and avoiding the need for any costly redesign, while at the same time improving performance, and scaling to support future business objectives. Cisco strives for the design that achieves your business and technical goals, while minimizing your costs and risks.

There are various options in each service offer within the Cisco Data Center Services for OpenStack, which deliver upon the service goal and your needs. Table 1, following, outlines a set of criteria that will enable you to decide which service is most appropriate for your requirements.

Table 1.   Cisco Data Center Services for OpenStack - Aligning with Your Needs

Positioning: Which Cisco OpenStack Service for Me?

Key:
🟢 Fully compliant with my needs here
🟡 Partially compliant with my needs here
🔴 Non-compliant with my needs here

Customer Need/Preference	Cisco Cloud Strategy Service	Cisco OpenStack Assessment and Validation Service	Cisco OpenStack Design & Deployment Service
I'm not sure on our cloud strategy and whether OpenStack should be part of that	🟢	🔴	🔴
I need to examine not only our cloud strategy, but also infrastructure and operations management aspects	🟢	🔴	🔴
I need to get started with the simplest offer and then we add follow-on services	🔴	🟢	🔴
My team needs help to get started with OpenStack - get them enabled and then they can take it into production	🔴	🟢	🔴
I needed to experiment with the solution before we go live, get it up and running as quick as possible, so we can understand any gaps, the production implications and future requirements	🔴	🟢	🔴
I need Cisco to take this into production for me	🔴	🔴	🟢
I need to include additional network elements e.g. Firewall, Load balancer, VRF etc in my cloud management platform	🔴	🔴	🟢
I need market differentiation, I need to be able to change the service offer - so I expect new cloud use cases (services) to be designed for me	🔴	🔴	🟢
I need you to integrate with my other OSS systems: Trouble ticketing, billing etc	🔴	🔴	🟢
I really need a heavily customized OpenStack-based solution	🔴	🔴	🟢
I am prepared to pay extra for support of customizations you design for me	🔴	🔴	🟢

These services deliver a range of outcomes for your business, illustrated below.

Table 2. Cisco Data Center Services for OpenStack: Services Structure and Customer Outcomes

Cisco OpenStack Services: Outcome Comparison

Key:
- 🟢 Included with service offer
- 🟡 Optional
- 🔴 Not Included with service offer

Outcome	Cisco Cloud Strategy Service	Cisco OpenStack Assessment and Validation Service	Cisco OpenStack Design & Deployment Service
Cloud Infrastructure Strategy Assessed/Devised	🟢	🔴	🔴
Cloud Management Strategy Assessed/Devised – Includes OpenStack assessment and go/no-go decision	🟢	🔴	🔴
Cloud Infrastructure Strategy Assessed/Devised	🟢	🔴	🔴
Cloud Transformational Roadmap Defined	🟢	🔴	🔴
Customer OpenStack Requirements Defined	🔴	🟢	🟢
Customer Environment Checked: OpenStack install readiness validated	🔴	🟢	🟢
Standard Cisco OpenStack High Level Design Reviewed	🔴	🟢	🔴
Customer Specific OpenStack High Level Design Developed	🔴	🔴	🟢
Standard Cisco OpenStack Test Plan Reviewed	🔴	🟢	🔴
Customer Specific OpenStack Test Plan Design Developed	🔴	🔴	🟢
Recommended Cisco Extensions Developed/Integrated	🔴	🔴	🟢
Customer Specific Extensions Developed/Integrated	🔴	🔴	🟢
Software Installed in Lab	🔴	🟢	🟢
Software Installed in Production	🔴	🟢	🟢
Lab Testing Complete	🔴	🟢	🟢
Production Testing Complete	🔴	🔴	🟢
Knowledge Transfer Complete	🔴	🟢	🟢
Future State Management Assessment Complete: Clear recommendations on next steps with OpenStack	🔴	🟡	🟡

Optional Related Services

Cisco Data Center Services for OpenStack are part of Cisco's unified cloud architecture and Cisco Cloud Enablement Services. So with a Cisco Services cloud portfolio spanning OpenStack, Cloud Enablement and Intelligent Automation for Cloud, Cisco offers a comprehensive approach to realizing your cloud strategy and vision by covering all key aspects of the process.

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 data center work better when technology products and services are aligned with your business needs and opportunities. Using an innovative, unified view of data center assets, Cisco and our industry-leading partners deliver services that accelerate the transformation of your data center. Cisco takes an architectural approach to help you efficiently integrate and manage data center resources. Cisco Data Center Services can help you reduce costs and deliver high availability and application performance.

Cisco Expertise

Cisco and our partners use leading practices and proven methodologies to help you quickly and efficiently plan and deploy a high-performance, resilient, and scalable architecture. Cisco Data Center Services for OpenStack are delivered by Cisco Services experts who hold a wide array of industry certifications and are subject-matter experts in business and technology architectures and data center technologies. They have direct experience in planning, designing, and supporting cloud infrastructures and cloud automation projects. Our product and technology expertise is continuously enhanced by hands-on experience with real-life cloud deployments and broad exposure to the latest technology and implementations.

Availability

The Cisco Data Center Services for OpenStack are available immediately in North America, and globally in 2014. Contact your local Cisco account manager or Cisco channel partner for information about availability in your area.

For More Information

For more information about the Cisco Data Center Services for OpenStack, visit http://www.cisco.com/go/dcservices.

Printed in USA

C78-730673-00   01/14