Cisco InterCloud Provider Edition

Help Your Customers Expand Their Data Centers the Easy Way

There are probably times when your customers wish they could stretch their data centers. They need more computing and storage capacity than their own facilities provide. Perhaps it is the end of a quarter, and summing-up and reporting applications are using all their center's computing power so they have to sideline less crucial uses. Or they're getting ready for holiday shopping, and they need enough capacity to process many more sales than usual. Perhaps they just want more capacity in general without having to build out their own data centers.

You can provide the easy way to do it. With Cisco® InterCloud Provider Edition, you can help your customers extend their data centers into your public cloud temporarily or permanently. You can enable them to essentially encapsulate a piece of their own data centers with their own security, QoS, and other policy provisions, along with applications and data, into your public cloud. You can offer them not only more capacity but also peace of mind.

You can deliver a complete cloud solution, on infrastructure that you manage, that incorporates private, virtual private, and public resources, offering a composite environment that offers the best of all of these. You don't have to compete on commodity service: You can differentiate yours as a premium service (Figure 1).
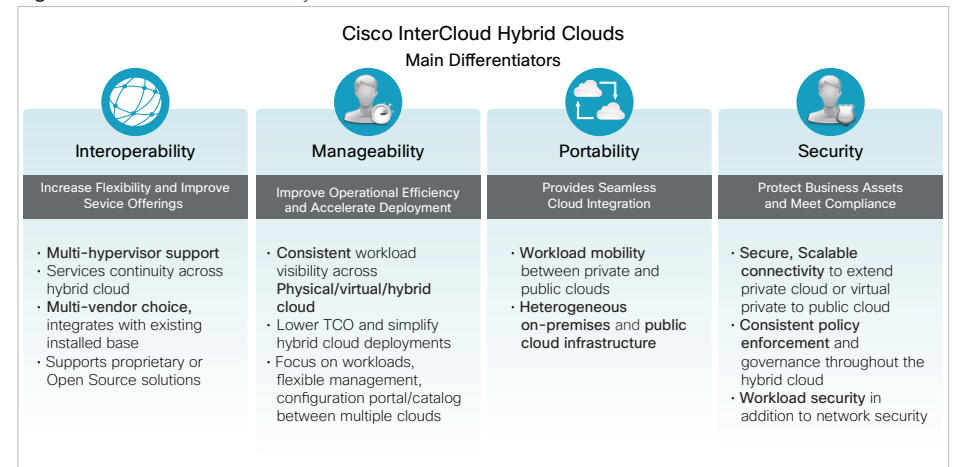
The Trend to Hybrid Clouds

A number of trends are inclining companies to use hybrid clouds:

- They need the flexibility of more capacity on demand without enlarging their data centers.

- They want added capacity to be available temporarily and to be able to use more or less capacity as needed.

- They need any extra capacity to behave just as it does in their data centers and their internal clouds.

- They need to control costs and help ensure security. Public clouds offer savings over building out a company's own data center, and a hybrid cloud should offer security and privacy.

The use of hybrid clouds is itself a trend: 70 percent of enterprise customers surveyed by the Gartner Group in 2012 said their companies would pursue a hybrid cloud strategy by 2015.

Figure 1. Cisco InterCloud Hybrid Clouds

Cisco InterCloud Hybrid Clouds Main Differentiators			
Interoperability	**Manageability**	**Portability**	**Security**
Increase Flexibility and Improve Sevice Offerings	Improve Operational Efficiency and Accelerate Deployment	Provides Seamless Cloud Integration	Protect Business Assets and Meet Compliance
· **Multi-hypervisor support** · Services continuity across hybrid cloud · **Multi-vendor choice**, integrates with existing installed base · Supports proprietary or Open Source solutions	· **Consistent** workload visibility across **Physical/virtual/hybrid cloud** · Lower TCO and simplify hybrid cloud deployments · Focus on workloads, flexible management, configuration portal/catalog between multiple clouds	· **Workload mobility** between private and public clouds · **Heterogeneous on-premises** and **public cloud infrastructure**	· **Secure, Scalable connectivity** to extend private cloud or virtual private to public cloud · **Consistent policy enforcement** and governance throughout the hybrid cloud · **Workload security** in addition to network security

What Do You Need?

Capability to Give My Customers the Comfort Level They Want

Your customers want to know that their data and applications are secure and private. They also want control over the parts of their operations that reside in your cloud. The Cisco InterCloud solution essentially encapsulates a portion of a customer's data center and extends it into your public cloud. Customers maintain their own security, access, and policy controls over their applications and data. They can manage this extension of their own data center together, transparently, with their on-premises data center. There is no operational demarcation visible to your customers.

An Opportunity to Build Deeper Relationships with My Customers and Differentiate My Services

Lots of providers offer public clouds. So you want to make yours better, and you can do that with Cisco InterCloud Provider Edition. It allows you to give your customers choices about how they use your cloud services. Customers can:

- Extend their workloads into your public cloud, expanding their own data centers while retaining control over both the on-premises operations and the parts of their workloads residing in your cloud

- Occupy a portion of your public cloud that is dedicated to them as a private cloud, using it as their entire data center; they don't need any on-premises facility

- If you are already managing their on-premises data center, extend that data center into your public cloud, which you also manage
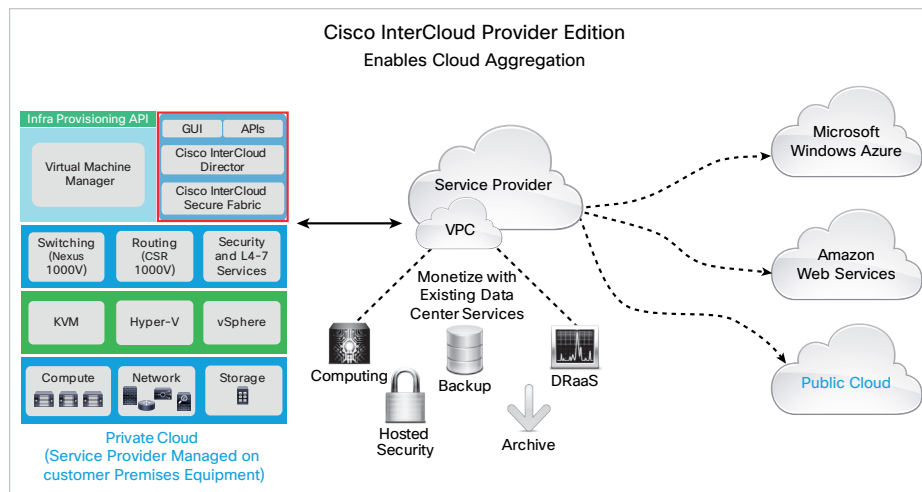
Cisco Intercloud Provider Edition is designed to be versatile and to make it easy for you to structure these different types of service and provide differentiation.

The relationship you build with customers through your hosting of all or a portion of their data centers helps you build closer relationships with those customers, on which you can build to develop further business opportunities. It offers an excellent way to prove your reliability and demonstrate that you're willing and able to go beyond what is required to support your customers.

Aggregate Cloud Services from Other Providers So You Can Be the Single Point of Contact for Your Customers

For various reasons, customers may want to use not only your cloud, but also those offered by other cloud providers. For regulatory reasons, they may need to use a cloud within a particular country. One provider may specialize in their industry. Or they may simply like a given provider. You can offer your customers access to one, two, or more public clouds by configuring Cisco InterCloud Provider Edition to support such hybrid cloud deployments transparently. Thus, you can become a cloud aggregator for your customers and their single point of contact for cloud services. This capability is another level of service you can use to differentiate your service from that of competitors (Figure 2).

Figure 2. Become a Cloud Aggregator

The Cisco InterCloud Provider Edition Solution

Table 1 describes the main services of Cisco InterCloud Provider Edition.

Table 1. Main Services

Service Name	Description
Cisco InterCloud Provider Edition	Cisco InterCloud Provider Edition packages together the following products: • Cisco InterCloud Business Edition • Cisco InterCloud Provider Enablement Platform Cisco InterCloud Business Edition enables the extension of a customer's data center to support hybrid cloud deployments. It also enables the provider to define policies that govern locations to which the customer workloads can be extended. In addition, it gives customers a portal through which they can dynamically manage their workload extensions and consolidation. The Cisco InterCloud Provider Enablement platform provides the APIs that a customer's Cisco InterCloud Business Edition offering can interface with to support hybrid cloud deployments.

Proof Points

Use Cases
Cisco InterCloud Business Edition use cases include the following: • Capacity augmentation: As discussed earlier, a retailer may need more capacity during peak shopping seasons, and a company may need more computing power to generate quarterly reports. Customers may also need more capacity when their contact centers are handling peak numbers of calls or they're opening new facilities that will strain their existing data centers. The crucial point is that the capacity they add will be indistinguishable from what their own data centers already provide. In this hybrid cloud, the public and private merge transparently both in the way that employees can use the additional resources and in the customer's management of IT. • Development and testing: A customer's encapsulated data center in your public cloud is an excellent place to test and develop new software. The development and testing don't use data center resources the company needs for day-to-day operations, and when the company has proved the new software, that software is ready to move into regular operations because it has been tested in the same environment in which it will run. • Disaster recovery: If disaster strikes a customer that has a transparent extension of its on-premises data center located in your public cloud, the customer has a copy of the applications it stored there, as well as its basic data center configuration. It can regenerate its policies and rules, recover much of its data, and continue to work even if its primary data center is down for some time.

Why Cisco?

Cisco has decades of experience in networking, network fabrics, and data centers. And now it is using that experience to help you offer your customers highly desirable services from your public cloud and to profit from them. Those customers who use Cisco's hybrid cloud technology will find that their extensions into your cloud will automatically interoperate transparently with your cloud offerings. But the Cisco InterCloud solution supports heterogeneous infrastructures as well. And your Cisco InterCloud Provider Edition will interoperate transparently with your own infrastructure. You'll benefit from operational consistency across the hybrid cloud deployment.

For More Information

For more information about successful real-world implementations and best practices, visit http://www.cisco.com/en/US/products/ps13672/index.html.