At-A-Glance

Cisco Intercloud Fabric for Business

Expand Your Data Center the Easy Way

Today, you’re expected to champion innovation in your business, stay aligned with evolving business objectives, and deliver new and unique experiences to your customers. It’s a tall order. The move to the cloud has been steadily gaining acceptance because it promises to help you achieve these goals faster, more efficiently, and more cost effectively. However, it can be difficult to adapt your environment to new IT consumption models. It is difficult to handle multiple cloud environments. And you can’t get locked into any one deployment model because change is too unwieldy and expensive.

Hybrid clouds are quickly becoming the new normal and allow you to combine the benefits of private and public clouds. With private, public, and hybrid cloud environments, you have the flexibility to source IT services based on your business needs, IT requirements, and desired consumption models. Using a hybrid cloud model, you can also act as a broker of IT services and oversee workload movement, application management, security, and compliance across the private and public cloud domains and deliver the desired business scalability, cost-effective benefits, and innovation.

With Cisco® Intercloud Fabric for Business, you can extend your data center or private cloud to the public cloud, allowing you to acquire the added capacity you need, with no demarcation between your internal cloud and the external one. You can also integrate your private cloud with clouds run by more than one service provider, with consistent network and security policies across private and public clouds. With Cisco Intercloud Fabric for Business, you get the agility, capacity you need, as well as security and control.

The Trend to Hybrid Clouds

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

• They need the flexibility to add more capacity on demand without needing to build for peak capacity in their data centers.
• They need added capacity to be available temporarily and the freedom to use more or less capacity as needed.
• They need additional capacity to enable their data center and their internal cloud to behave consistently.
• They are tasked with controlling costs and helping ensure security. Public clouds do not require the initial capital investments necessary to build out a company’s own data center, and a public cloud can better absorb a company’s need for elasticity and offer pay-as-you-grow expansion. In addition, a hybrid cloud can provide the same security and privacy as a company’s on-premises data center.
• They need to be more agile.

What Do You Need?

The Power to Extend Your Company’s Own Capabilities

Cisco Intercloud Fabric for Business lets you create a hybrid cloud to extend your own data center and cloud capacity when you need it. The cloud extension is provisioned with your own applications, so you can scale the applications when you need to. You can access more computing power, all of it operating just as if it were in your on-premises data center. You extend your own security and quality of service (QoS), access control lists, and other policies, enabling the public cloud to act as part of your own cloud.

The Ability for Your Own IT Staff to Control and Maintain Additional Capacity

You may be reluctant to place your company’s data and applications in a public cloud, stored away from your own premises. That’s understandable. Data and applications are among your company’s most important assets. To be sure that nobody else can gain access, you need security to be just as strict as on company premises. In addition, you need your workers to have the same QoS when they use applications and tools in the cloud as they have on your premises.

The Cisco Intercloud Fabric for Business solution encapsulates your enterprise applications and places them within a public cloud. You can have the same security, you can enforce the same policies, and you can troubleshoot your own problems. Although you’re just renting the capacity, you manage it, you control it, and for all practical purposes, you own it. And you determine when the added capacity is called into use.

A Choice of Cloud Providers

In some cases, the applications you use run on an operating system that is tied to a particular cloud provider, or the public cloud may be specific to certain industries. In other cases, you need to comply with regulations that limit the processing of some data to a specific country, so you need a provider that resides in that country. Perhaps you just find a given provider easy to work with, or you have different applications that have different SLA requirements.

With Cisco Intercloud Fabric for Business, you can link to the cloud provider of your choice. And you can link to more than one. Each instance of your data center in a cloud has the same attributes as the first one: the same security, the same control, and the applications and access you place in it. You can even move applications between your private environment and your extensions in the public cloud.
One Fabric, One Management, One View
Cisco Intercloud Fabric for Business gives you choices. You choose how much added capacity you need and when you need it; you can choose one or a group of providers, and you choose the rules that govern access and use of this extension of your data center. You also choose when you use your capacity so you can easily provide for peak times.

Cisco Intercloud Fabric for Business also gives you a unified system based on a single data center fabric. Applications don’t know where the on-premises system ends and the cloud system begins, but you will have all the visibility you need to manage the application and the hybrid cloud infrastructure.

Components and Features
Figure 1 shows the Cisco Intercloud Fabric architecture. Figure 2 illustrates its main services, and Table 1 describes the services.

Cisco Intercloud Fabric for Business consists of the Secure Extender and Director components. The solution is supported by Cisco Virtual Security Gateway (VSG) and Cisco Cloud Services Router (CSR) solutions.

<table>
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<tr>
<th>Component Name</th>
<th>Description</th>
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<tr>
<td>Cisco Intercloud Fabric Secure Extender</td>
<td>Cisco Intercloud Fabric Secure Extender provides enterprise with secure extension to public clouds. It is integrated with links to several public cloud providers. Cisco offers Cisco Intercloud Fabric for Providers so that additional service providers can quickly integrate their environments with the Cisco solution to create a hybrid cloud offering.</td>
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<tr>
<td>Cisco Intercloud Fabric Director</td>
<td>Cisco Intercloud Fabric has an end-user and IT portal, Cisco Intercloud Fabric Director, for administration and management of the public cloud extension. This single console manages a company’s private and hybrid clouds, and it is used for managing cloud network services and cloud virtual machine lifecycles. Cisco Intercloud Fabric provides open APIs, which allow integration of third-party management tools. Additional management systems can provide advanced application deployment, monitoring, and assurance, as well as enforcement of business policies and compliance for network and security policies.</td>
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Use Cases

• Capacity augmentation: During the year, you may need more capacity, for example, during peak shopping seasons, or more computing power to generate quarterly reports. You also may need more capacity when your contact center is handling a peak numbers of calls and needs more support from your data center, or when you’re opening a new facility that strains your existing data center. With Cisco Intercloud Fabric for Business, the capacity you add will be indistinguishable from what your own data center already provides. In this hybrid cloud, the public and private systems merge transparently, both in what your employees can do using it, and in your management of it.

• Development and testing: Your encapsulated data center in a public cloud is an excellent place to test and develop new software. Development and testing don't drain data center resources that your company needs for day-to-day operations, and when you're finished, it is easy to move the new software into your regular operations because the environment in which it was tested is the same as your existing production environment.

• Disaster recovery: If a disaster occurs, having your applications and basic data center configuration available in a transparent extension of your on-premises data center will let you regenerate your policies and rules, recover much of your data, and continue to work even if your primary data center is down for some time.

Why Cisco?

With decades of experience in networking, network fabrics, and data centers, Cisco continues to be a leading provider of cloud infrastructure equipment. And now we offer the tools and services to help you create your own on-premises-to-off-premises network: a transparent extension of your on-premises activities in a public cloud. If your enterprise network is built on Cisco infrastructure, you will find making this extension particularly easy. Cisco provides operation consistency across physical and virtual cloud deployments, enhanced workload protection, and application awareness drawing on Cisco Application Centric Infrastructure.

For More Information

For more information, visit www.cisco.com/go/intercloudfabric.