



Overview

Cisco Intercloud Fabric for Provider (ICFP) simplifies the complexity involved in working with a variety of public cloud APIs, and enables cloud API support for service providers who currently do not have API support. Cisco ICFP provides an extensible adapter framework that allows integration with a variety of provider cloud infrastructure management platforms, such as OpenStack, CloudStack, VMware vCloud Director, and any other API that can be integrated through a software development kit (SDK) provided by Cisco.

Currently, service providers have their own proprietary cloud APIs—such as Amazon EC2 and Windows Azure—that give customers limited choices and do not provide an easy method for moving from one provider to another. Cisco ICFP abstracts this complexity and translates Cisco Intercloud Fabric cloud API calls to the cloud platform APIs of different provider infrastructure platforms, giving customers the option of moving their workloads regardless of the cloud API used by the service provider.

Many service providers do not provide cloud APIs that Cisco Intercloud Fabric can use to deploy customers' workloads. One option for these providers is to provide direct access to the virtual machine (VM) manager's SDK or API, such as VMware vCenter or Microsoft System Center. However, this option exposes the provider environment and service providers prefer not to use it because of security concerns. Cisco ICFP, as the first point of authentication for the customer cloud when requesting cloud resources, enforces highly secure access to the provider environment. In addition, Cisco ICFP provides the cloud APIs that are required for service providers to be part of the provider ecosystem for Cisco Intercloud Fabric.

As the interface between Cisco Intercloud Fabric from customer private cloud environments and provider clouds (public and virtual private clouds), Cisco ICFP provides the following benefits:

- Standardizes and brings uniformity to cloud APIs, making it easier for Cisco Intercloud Fabric to consume cloud services from service providers that are a part of the Cisco Intercloud Fabric ecosystem.
- Helps secure access to a service provider's underlying cloud platform.
- Limits the utilization rate per customer or tenant environment.
- Provides northbound APIs for service providers for integration with existing management platforms.
- Supports multitenancy.
- Monitors resource usage for each tenant.
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