Overview

Cisco Intercloud Fabric Provider Platform

Cisco Intercloud Fabric Provider Platform (ICFPP) simplifies and abstracts 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 ICFPP 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 an 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 provide no easy method for moving from one provider to another. Cisco ICFPP abstracts this complexity and translates Cisco Intercloud Fabric cloud API calls to cloud platform APIs of different provider infrastructure platforms, giving customers the option of moving their workloads regardless of the cloud API exposed 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 their virtual machine manager's SDK or API, such as vCenter or System Center, which exposes the provider environment and is not a preferred option for service providers due to security concerns. Cisco ICFPP, as the first point of authentication for the customer cloud so that it can consume provider cloud resources, enforces highly secure access to the provider environment. In addition, it 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 the Cisco Intercloud Fabric from customer cloud environments and provider clouds (public and virtual private clouds), Cisco ICFPP 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 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 per tenant.

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Overview of the Troubleshooting Process

Follow the steps below to troubleshoot your network:

1 Gather information that defines the specific symptoms.

2 Identify all potential causes for the symptoms.

3 Systematically eliminate each potential cause (from most likely to least likely) until the symptoms disappear.

Overview of Best Practices

Best practices are the recommended steps you should take to ensure the proper operation of your appliance. We recommend the following best practices for most networks:

- Maintain a consistent Cisco Intercloud Fabric Provider Platform release across all network devices.

- Refer to the release notes for your Cisco Intercloud Fabric Provider Platform release for the latest features, limitations, and caveats.

- Document private data center details, including the vNIC configuration used by virtual machines (VMs) and the corresponding vSwitch configuration to ensure that they are consistent with each other.

- Verify and troubleshoot any new configuration changes after implementing a change.

Contacting Cisco

If you cannot resolve a problem by using the information in this guide, contact Cisco Customer Support for help. For more information, see Contacting Cisco Customer Support.