Installation Requirements

System Requirements

You can deploy a Cisco ICFP virtual appliance on a system that meets the following requirements:

Table 1: Cisco ICFP System Requirements

Requirement	Description
Four virtual CPUs	1.8 GHz
Memory	8 GB RAM
Disk space	Disk space that is configured as follows: • Disk 1—100 GB for Cisco ICFP. • Disk 2—As much memory as required to support concurrent virtual machines being moved to the provider cloud. **Note** If additional storage is not configured, Cisco ICFP stores VM images uploaded from Cisco Intercloud Fabric on the local disk. For more information on configuring additional storage, see Configuring Additional Storage.
One vNIC	Management network interface

Hypervisor Requirements

Cisco ICFP is a virtual appliance that can be deployed on the VMware vSphere Client or OpenStack KVM Hypervisor.

Table 2: Cisco ICFP Hypervisor Requirements

Hypervisor	Version
VMware	
VMware vSphere Client	ESXi 5.1, 5.5, and 6.0
OpenStack	
Cisco Intercloud Services OpenStack	Kilo
Red Hat Enterprise Linux OpenStack Platform	Kilo

Port Requirements

Ports must be configured as described in the following tables to ensure that Cisco ICFP can communicate effectively on the internal private network and the public network (Internet).

Table 3: Public Internet Inbound

Protocol	Port	Allow/Deny	Description
TCP	443	Allow	Allows inbound HTTPS traffic from the Internet so that Cisco Intercloud Fabric for Business can reach Cisco ICFP.

Table 4: Public Internet Outbound

Protocol	Port	Allow/Deny	Description
All	All	Deny	Cisco ICFP does not need to send outbound traffic to the Internet.

Table 5: Internal Network Inbound

Protocol	Port	Allow/Deny	Description
TCP	443	Allow	Allows inbound HTTPS traffic from the internal network, so that the Cisco ICFP web-based GUI can be accessed.

Protocol	Port	Allow/Deny	Description
TCP	22	Allow	Allows inbound SSH traffic from the internal network for Cisco ICFP administration.
TCP	3306	Allow	Allows inbound MySQL traffic from the internal network. Required if Cisco ICFP is configured in a multiple-node cluster.
TCP	8080	Allow	Allows inbound HTTP traffic for template uploads to CloudStack. Required if using the CloudStack adapter.

Note To ensure that the destination systems receive communications from Cisco ICFP, the ports in the following table must be open on any firewalls on the internal network between Cisco ICFP and the destination systems.

Table 6: Internal Network Outbound

Protocol	Firewall Port	Allow/Deny	Description
TCP	443	Allow	Allows HTTPS traffic to the internal network. Required to reach the cloud provider API/SDK gateway if it is running on HTTPS.
TCP	80	Allow	Allows HTTP traffic to the internal network. Required to reach the cloud provider API/SDK gateway if it is running on HTTP.
TCP	3306	Allow	Allows outbound MySQL traffic to other Cisco ICFP nodes on the internal network. Required if Cisco ICFP is configured in a multiple-node cluster.
TCP/UDP	514	Allow	Allows syslog traffic from Cisco ICFP to the syslog server.

Information Required for Configuration and Installation

Before installation, collect the following information:

Required Information	Mandatory / Optional	Your Information / Notes
For Preinstallation Configuration		

Required Information	Mandatory / Optional	Your Information / Notes
Cisco ICFP image location	Mandatory	
Cisco ICFP OVA or QCOW2 image name	Mandatory	
VM name	Mandatory	
VMware data store location	Mandatory for VMware	
Network / Port Profile for VM management	Mandatory	
KVM flavor name	Mandatory for OpenStack	
KVM Instance Security Group	Mandatory for OpenStack	
For Cisco ICFP Installation		
Installation type: Standalone, Primary, or Service Node For OpenStack environments, you can install only in Standalone mode.	Mandatory	
Hostname	Mandatory	
Admin / root / ShellAdmin account password	Mandatory	
Static IP address For OpenStack environments, this must be a public IP address.	Mandatory	
Subnet mask	Mandatory	
Gateway IP address	Mandatory	
Primary node IP address	Mandatory only for service node installations.	
NFS server IP address	Optional[1]	
NFS directory to mount	Optional	

Required Information	Mandatory / Optional	Your Information / Notes
Domain name	Optional	
DNS server IP address	Mandatory	
NTP server IP address or fully qualified domain name (FQDN)	Mandatory	
Cisco ICFP license	Optional	
Cisco ICFP Product Authorization Key (PAK)	Optional	

[1] If you do not configure NFS in a cluster deployment, template creation and VM migration can fail if a service node fails. If NFS is not available, you can configure a Cinder volume.