

Connector Deployment Guide - Hyper-V

Cloudbrink's [Hybrid Access as a Service](#) enables enterprises to deliver best-in-class quality of experience and security for their end users in the new mobile-first and cloud-native world. Cloudbrink achieves this through three simple components:

1. The Brink App is installed on end user devices, with all major platforms supported.
2. Enterprise access points are automatically created via machine learning in close proximity to the end user, enabling Cloudbrink's revolutionary overlay protocol to overcome the most challenging last-mile network conditions, delivering best-in-class, hi fidelity quality of experience for the end-user no matter the network they are connected to.
3. To provide end-to-end security, a Cloudbrink Connector is deployed in the customer's data center or cloud environment, creating a dark tunnel connection from the end user to their applications.

This document covers deploying the Cloudbrink Connector in an Hyper-V environment.

Introduction

This document will guide in creating the Cloudbrink Connector(s) in Hyper-V.

Prerequisites

- Hyper-V Image Provided from Cloudbrink
- Cloud-Init ISO generated from: cloudinit.cloudbrink.pro
- Networking:
 - Outbound ports 443, 9090 (TCP), and 9993-4 (UDP) to Cloudbrink SaaS and Edges


Connector VM Requirements

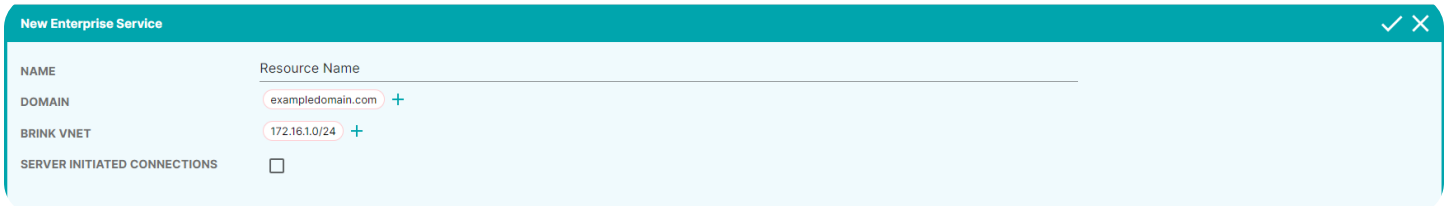
Overall Connector Throughput	vCPU	RAM	Disk	Expected no. of concurrent user sessions
0.5-to-2 Gbps	4	8GB	50GB	400 sessions; 5Mbps/session avg throughput
2-to-4 Gbps	8	16GB	50GB	800 sessions; 5Mbps/session avg throughput
4-to-7 Gbps	16	32GB	50GB	1400 sessions; 5Mbps/session avg throughput

Create Connector Portal Configuration

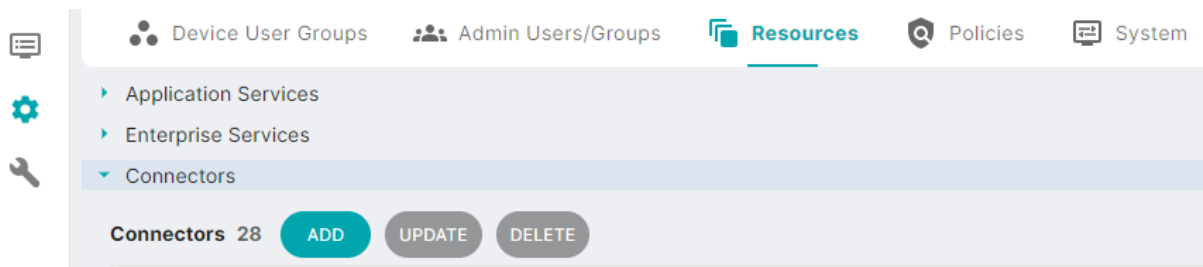
When deploying a connector on any platform, you need to pre-stage the configuration in your Tenant first. Start by publishing at least 1 Enterprise Service.

1. Navigate to **Configure > Resources > Enterprise Services**.
2. Expand the window and click the  symbol in the bottom right corner.


3. Provide a Name, Domain and Brink VNET. Multiple Domains or Brink VNET's may be specified for the Enterprise Service.
 - a. Server initiated connections allow tools like InTune or JAMF to initiate a connection to users running Cloudbrink
 - b. By default, only inbound traffic from Agents is allowed.
4. Once complete click the  check mark in the upper right corner.



5. Navigate to **Configure > Resources > Connectors**, and select ADD from the menu.



Fill in the necessary fields.

- a. **Name:** Provide a name for the Connector
 - b. **Hosting Environment:** Choose the platform. In this case Private for Hyper-V
 - c. **Deployment Mode:** Choose non-ha for stand-alone appliance or active-standby if you plan to deploy them in a pair
 - d. **Region:** private
 - e. **DNS Servers:** Provide a primary and secondary DNS server
 - f. **Deployment Mode:** Select if you'd like to use DHCP or SourceNAT for client connections
 - g. **Enterprise Resources:** Add the enterprises resources you would like to access through the connector
6. Click the  in the upper right corner when finished.

Connectors

← ✓

NAME Connector Name HOSTING ENVIRONMENT Private

DEPLOYMENT MODE non-ha REGION private

MGMT IP

▼ DNS Servers

DNS PRIMARY IP 10.10.0.1

DNS SECONDARY IP 1.1.1.1 +


▼ User IP Management

DEPLOYMENT MODE Source NAT

▼ Enterprise Resources

ENTERPRISE RESOURCES Resource Name +

▶ VLAN Tagging

7. After you have saved your Connector configuration click the  key symbol in the upper right corner to generate your Connector Key. Save this key, as you will need this when creating the CloudInit ISO.
 - a. If generating an HA Pair, click the key again to generate a second separate key.

Deploy Connector in Hyper-V:

1. From Hyper-V Manager, select action > new > Virtual Machine
2. Name the virtual machine appropriately and click next

New Virtual Machine Wizard

Specify Name and Location

Before You Begin
Specify Name and Location
Specify Generation
Assign Memory
Configure Networking
Connect Virtual Hard Disk
Installation Options
Summary

Choose a name and location for this virtual machine.

The name is displayed in Hyper-V Manager. We recommend that you use a name that helps you easily identify this virtual machine, such as the name of the guest operating system or workload.

Name:

You can create a folder or use an existing folder to store the virtual machine. If you don't select a folder, the virtual machine is stored in the default folder configured for this server.

☐ Store the virtual machine in a different location

Location:

If you plan to take checkpoints of this virtual machine, select a location that has enough free space. Checkpoints include virtual machine data and may require a large amount of space.

3. Select Generation 1, and click next

Before You Begin
Specify Name and Location
Specify Generation
Assign Memory
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Installation Options
Summary

Choose the generation of this virtual machine.

☒ Generation 1
This virtual machine generation supports 32-bit and 64-bit guest operating systems and provides virtual hardware which has been available in all previous versions of Hyper-V.

☐ Generation 2
This virtual machine generation provides support for newer virtualization features, has UEFI-based firmware, and requires a supported 64-bit guest operating system.

Once a virtual machine has been created, you cannot change its generation.

4. Configure the desired memory based on the desired performance in the earlier table

Before You Begin

Specify Name and Location

Specify Generation

Assign Memory

Configure Networking

Connect Virtual Hard Disk

Installation Options

Summary

Specify the amount of memory to allocate to this virtual machine. You can specify an amount from 32 MB through 251658240 MB. To improve performance, specify more than the minimum amount recommended for the operating system.

Startup memory: MB

☒ Use Dynamic Memory for this virtual machine.

i When you decide how much memory to assign to a virtual machine, consider how you intend to use the virtual machine and the operating system that it will run.

5. Select the desired network for outbound connectivity

Before You Begin

Specify Name and Location

Specify Generation

Assign Memory

Configure Networking

Connect Virtual Hard Disk

Installation Options

Summary

Each new virtual machine includes a network adapter. You can configure the network adapter to use a virtual switch, or it can remain disconnected.

Connection:

Not Connected

External

Default Switch

6. Select "Use and existing virtual hard disk, and select the .vhd disk image provided from Cloudbrink

Before You Begin

Specify Name and Location

Specify Generation

Assign Memory

Configure Networking

Connect Virtual Hard Disk

Summary

A virtual machine requires storage so that you can install an operating system. You can specify the storage now or configure it later by modifying the virtual machine's properties.

☐ Create a virtual hard disk

Use this option to create a VHDX dynamically expanding virtual hard disk.

Name:

Location:

Size: GB (Maximum: 64 TB)

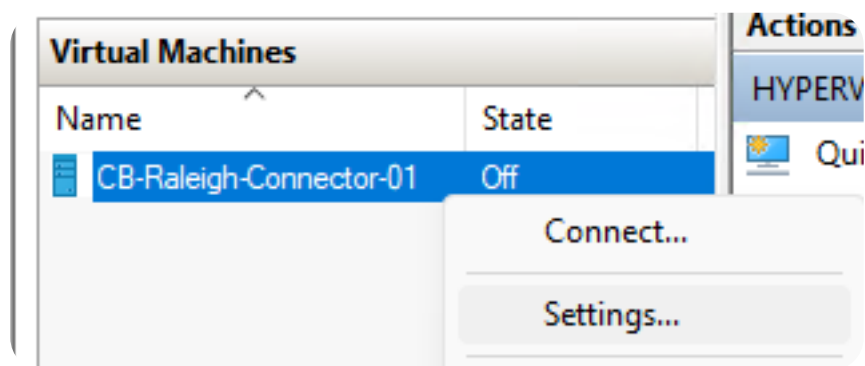
☒ Use an existing virtual hard disk

Use this option to attach an existing virtual hard disk, either VHD or VHDX format.

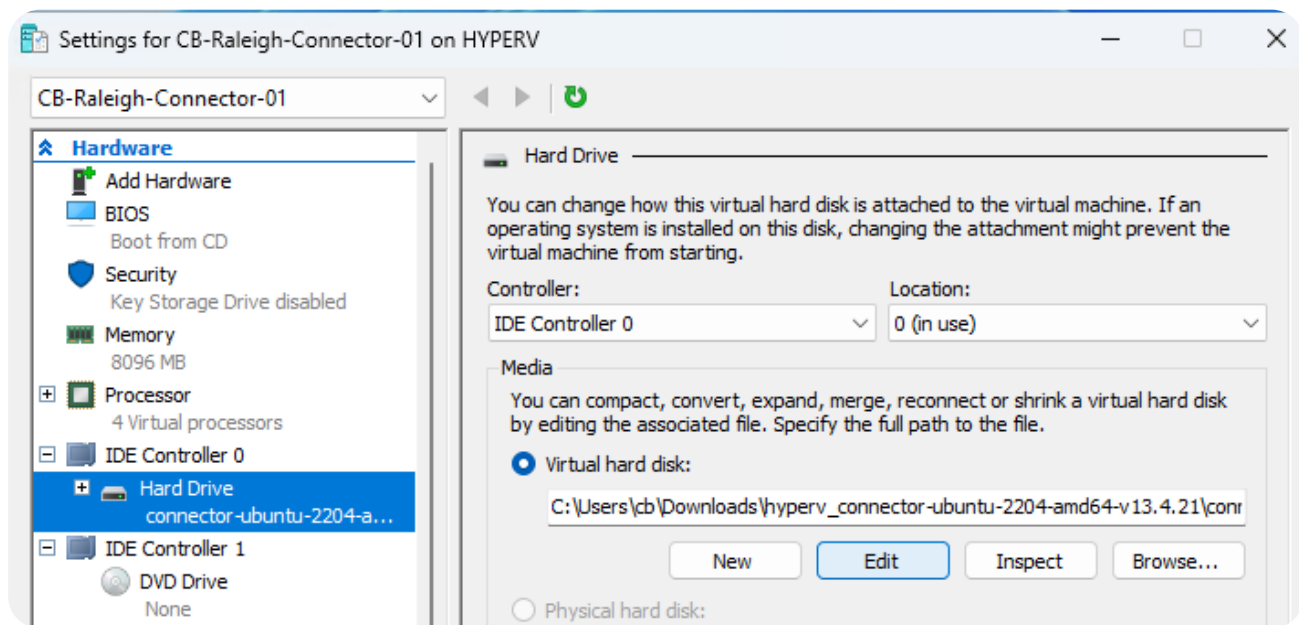
Location:

7. Proceed to the summary page, and hit finish to deploy the VM.

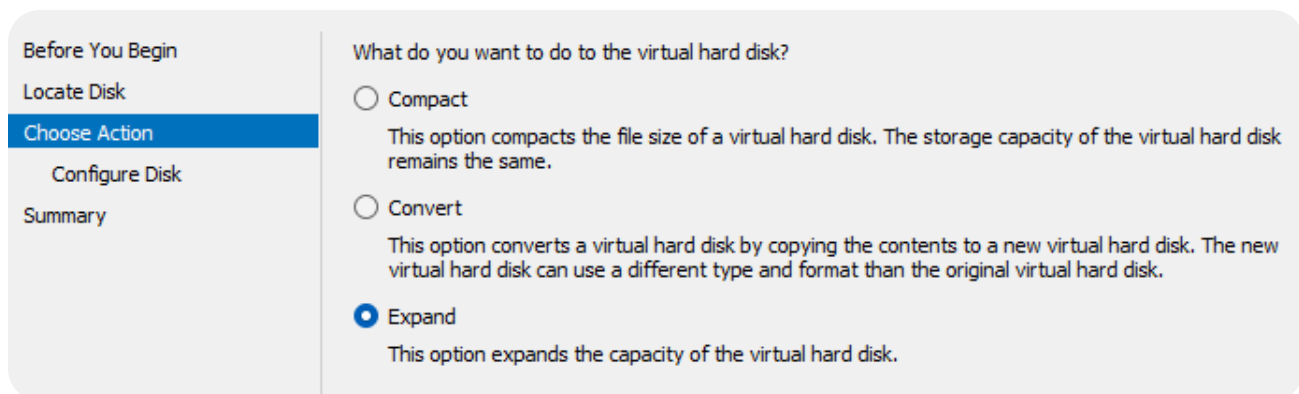
8. Before powering on, right click the deployed VM and select settings



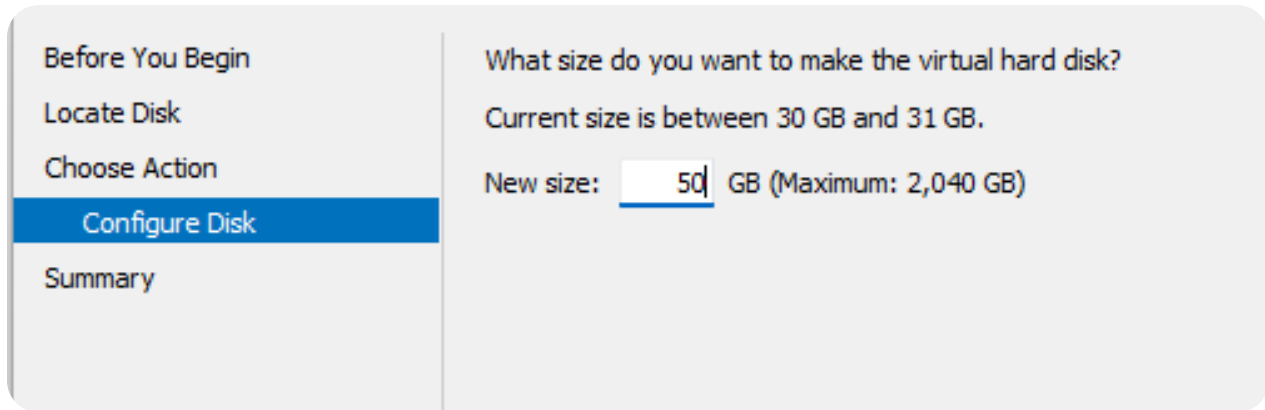
9. Select the Hard Drive, and click edit on the right hand window



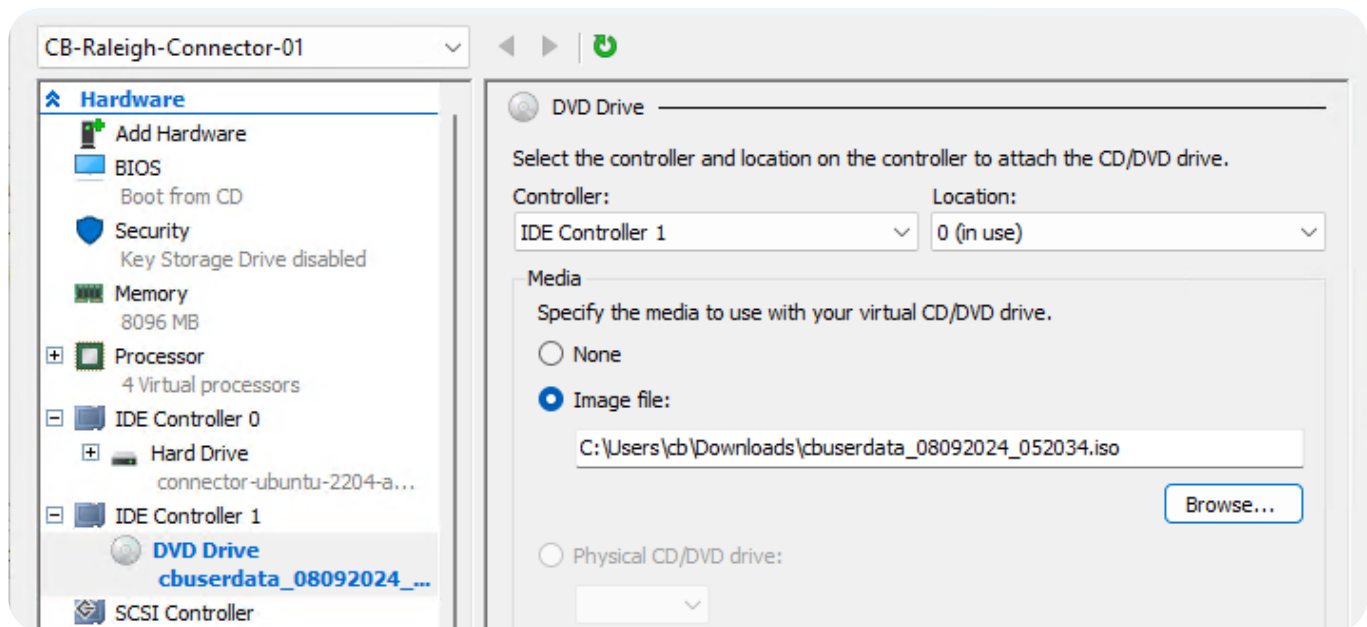
10. On the select hard disk, click next, and then expand



11. Expand the disk to 50 GiB. Click next and finish.



12. Under DVD Drive, mount the Cloudinit ISO generated from the cloudinit.cloudbrink.pro page



13. Start the connector Virtual Machine

Deployment Verification

The following steps may be taken to verify the connector is online and able to successfully pass traffic.

- Navigate to the admin portal, then **Configuration > Resources > Connectors** > The newly created connector should show as "Active," with its IP address in green. If an HA pair has been deployed, both IPs will be displayed, with the "Active" IP in green.
- If the connector does not progress to the "Active" state from "Configured", the most common issues are due to outbound connectivity not establishing, or with and invalid or expired OTP being used.
- If after verifying those things have been configured correctly, please reach out to support at the address below to assist.

us-west-1	N/A	172.31.16.225	Active
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Support Information

We would love to hear from you! For any questions, concerns, or feedback regarding deploying Hyper-V connectors, please reach out at support@cloudbrink.com