

Foglight® for IBM Cloud Migration Assessment
7.1.0

User and Administration Guide



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Legend

-  **WARNING:** A WARNING icon indicates a potential for property damage, personal injury, or death.

-  **CAUTION:** A CAUTION icon indicates potential damage to hardware or loss of data if instructions are not followed.

-  **IMPORTANT NOTE, NOTE, TIP, MOBILE, or VIDEO:** An information icon indicates supporting information.

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IBM Cloud Migration Assessment Dashboard

IBM Cloud provides some hosted VMware solutions while Foglight for IBM Cloud Migration Assessment dashboard helps the IBM Cloud users to review their on-premises environments, provides appraisal of the costs to run those workloads, and migrates VMware VMs to IBM Cloud Servers for VMware Solutions Dedicated.

This section introduces you to the Foglight for IBM Cloud Migration Assessment environment and provides you with essential information.

For more information, refer to the following topics:

- [Installation requirements](#)
- [Dashboard Location](#)
- [IBM Cloud Migration Assessment dashboard Introduction](#)

Installation requirements

Foglight for IBM Cloud Migration Assessment dashboard comes installed on Foglight Evolve.

Foglight for IBM Cloud Migration Assessment dashboard requires the following cartridges for data collection:

- *Virtual-VMware-7.1.0.car*
- *CommonAnalytics-7.1.0.car*
- *Cost-Director-7.1.0.car*

While Foglight Evolve comes with these cartridges pre-installed and enabled, a standalone Foglight release requires that these components be installed on the Foglight Management Server. The sequence of cartridge installation is important because of their dependencies. For more information about installing Foglight for IBM Cloud Migration Assessment dashboard, and for details about system requirements and version compatibility, see the Foglight for IBM Cloud Migration Assessment dashboard Release Notes.

Dashboard Location

After installing Foglight for IBM Cloud Migration Assessment, the **IBM Cloud Migration Assessment** entry appears under *Homes*.

To access the IBM Cloud Migration Assessment dashboard:

- 1 Log in to the Foglight browser interface.
- 2 Ensure that the navigation panel is open.
To open the navigation panel, click the right-facing arrow  on the left.
- 3 On the navigation panel, under *Homes*, click **IBM Cloud Migration Assessment**.

The **IBM Cloud Migration Assessment** dashboard opens.

Figure 1. IBM Cloud Migration Assessment dashboard



IBM Cloud Migration Assessment dashboard Introduction

This section includes the following contents:

- [Homepage](#)
- [IBM Cloud Migration Modeling](#)

Homepage

The IBM Cloud Migration Assessment dashboard includes the following elements:

- *IBM Cloud Server Pricing*

Click the link **IBM Cloud for VMware Solutions** to popup an IBM Cloud server list dialog box. The default server pricing list has been pre-defined. Users can import a new IBM Cloud pricing.

Region	Service Type	Category	Item Name	Price
Paris	AD	Active Directory VSI	1 Gbps Private Network Uplink	\$11.4/Month
Paris	AD	Active Directory VSI	8 GB RAM	\$2.4/Month
Paris	AD	Active Directory VSI	Windows Server 2019 Standard Edition (64 bit)	\$33.4/Month
Paris	AD	Active Directory VSI	100 GB (SAN)	\$11.32/Month
Paris	AD	Active Directory VSI	2.0 GHz Cores (QTY 2)	\$43.4/Month
Paris	ATTST	Attached Storage	1 GB - 4 IOPS/GB - Shared File-Level Storage for Client Work...	\$8.4/Month
Paris	ATTST	Attached Storage	1 GB - .25 IOPS/GB - Shared File-Level Storage for Client Wor...	\$8.4/Month
Paris	ATTST	Attached Storage	1 GB - 10 IOPS/GB - Shared File-Level Storage for Client Wor...	\$8.57/Month
Paris	ATTST	Attached Storage	1 GB - 2 IOPS/GB - Shared File-Level Storage for Client Work...	\$8.57/Month
Paris	BMMisc	Bare Metal	500 GB Public Bandwidth	\$8.4/Month
Paris	BMMisc	Bare Metal	10 Gbps Dual Public & Private Network Uplinks (Unbonded)	\$22.0/Month
Paris	BMMisc	Bare Metal	Intel TXT	\$3.4/Month
Paris	BMMisc	Bare Metal	Disk Controller	\$35.0/Month
Paris	BMMisc	Bare Metal	10 Gbps Dual Private Network Uplinks (Unbonded)	\$22.0/Month
Paris	BMMisc	Bare Metal	Redundant Power Supply	\$3.4/Month
Paris	BMMisc	Bare Metal	Monitoring	\$8.4/Month
Paris	Caveonix	Network	64 portable IP addresses	\$8.4/Month
Paris	Caveonix	Licenses	Caveonix 10-VM License Pack	\$8.4/Month
Paris	CPU	Bare Metal	Bare Metal Server Dual Intel Xeon Gold 6248 (2U; 12 drives; ...	\$433.0/Month
Paris	CPU	Bare Metal	Bare Metal Server Intel Xeon Gold 6140 Processor (2U; 12 dri	\$477.0/Month

- **Compute Price Plan and Storage Price Plan**

The price plans are used to define the VMware VMs on-premises cost. Click the links and bring you to the **Compute Price Plans** and **Storage Price Plans** tabs under **On-Premises > Administration** in Foglight Cost Director dashboard.

- **Performance Impact**

Performance Impact helps ensure a balance between costs and performance. Impact is measured by understanding how often a virtual machine exceeds the proposed destinations available resources. Users can input value for 0 – 100%. The default value is 5%. The higher the percentage the higher the impact. By choosing an impact, a cheaper server can be selected for the recommendation.

For example, by setting a value of 10%, the impact algorithm will assess how often a cloud cluster exceeds the proposed destination resources and count each breach of the available resources based on historic performance.

- **Analysis Period**

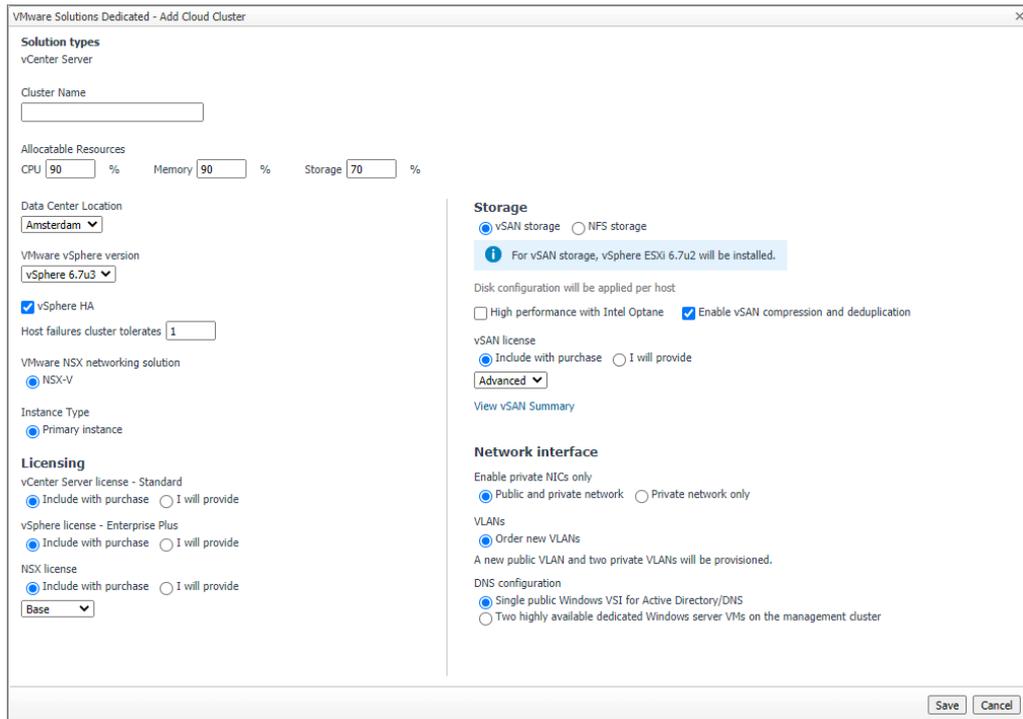
This period will be used to calculate the average usage of the needed resources (CPU, memory, and so on) in the consolidated environment. Users can define an Average Analysis Period. The default value is 7 days and other values, such as 1, 3, and 30 days, are supported.

i NOTE: Ensure that the chosen period is available in Foglight. If 30 days is chosen, while only 3 days of history data is available in the Foglight database, it will only use the 3 days of data for the average analysis period.

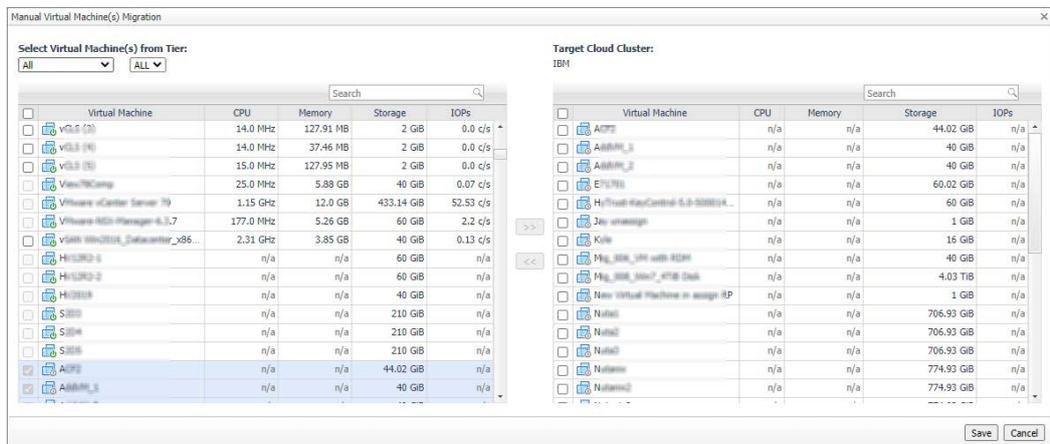
- **IBM Cloud Cluster table**

To create a new cloud cluster, do the following:

- 1 Click **New Cloud Cluster** and a *VMware Solutions Dedicated* dialog box will appear. Specify a cloud cluster name, make necessary changes, and click **Save**.



- 2 Click **Add VMs** to open a *Manual Virtual Machines Migration* dialog box. Select the VMs you want to add to the cloud cluster. The Memory Usage, CPU Demand, Storage Usage, and Storage IOPs for the selected VMs will be aggregated as Cloud Cluster metrics. Click **Save**.



- 3 The **IBM Cloud Migration Assessment** dashboard refreshes and the CPU, Memory, and Storage IOPs Metrics chart for selected IBM Cloud Cluster are displayed.

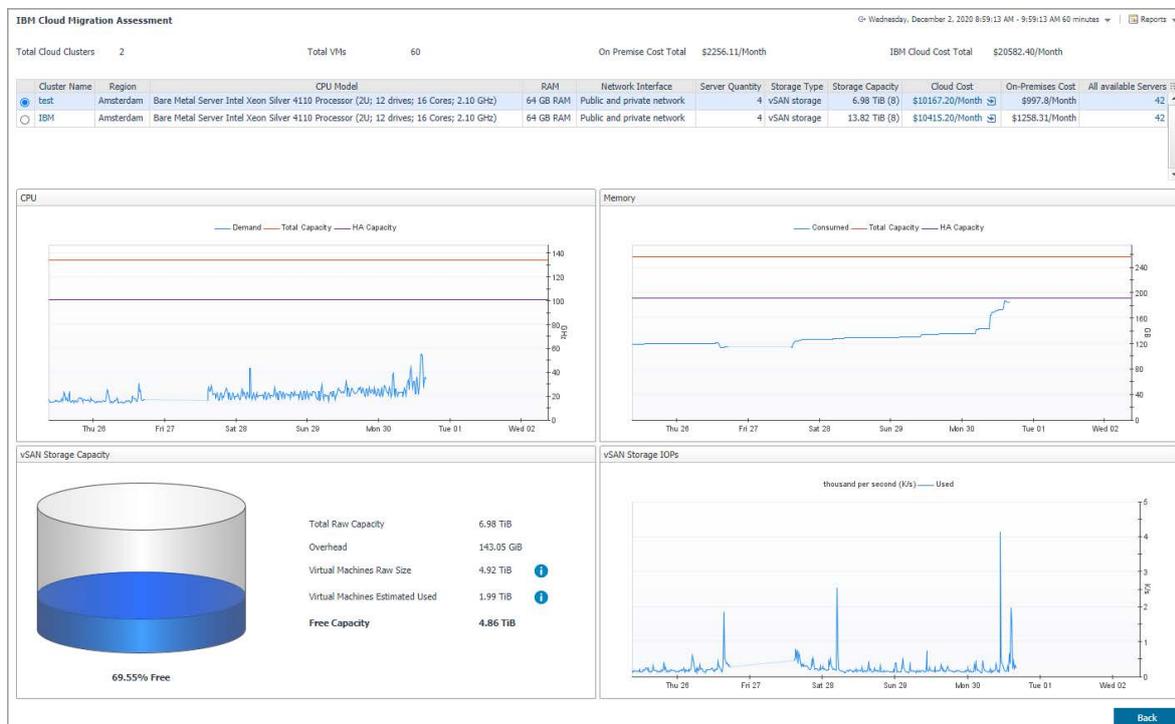
The IBM Cloud Cluster table also supports to edit or delete existing cloud cluster and save the exiting cloud cluster as configuration or load cloud clusters from configuration.

- **Run Model** button

Click the button to assess migration, the IBM Cloud cluster with lowest cloud cost will be recommended.

IBM Cloud Migration Modeling

After running model, a migration modeling result breakdown page will be displayed. It shows which IBM Server should be used for each Cloud Cluster. The system recommends the IBM Server with the lowest total cloud cost (server unit cost * quantity).



The migration modeling result page includes the following elements:

- Model result summary
Shows the *Total Cloud Clusters*, *Total VMs*, *On-Premises Cost Total*, and *IBM Cloud Cost Total*.
- Cloud Cluster list, including the following information:
 - *Cluster Name* and *Region*. Click *Cluster Name* to display *Cloud Cluster Details* page.

Cloud Cluster Details

Summary of Cloud Cluster test

System

Initial cluster name	test
VMware vSphere version	vSphere 6.7u3
Data center location	Amsterdam
Number of bare metal servers	4
DNS configuration	Single public Windows VSI for Active Directory/DNS
CPU model	Bare Metal Server Intel Xeon Silver 4110 Processor (2U; 12 drives; 16 Cores; 2.10 GHz)
RAM	64 GB RAM

vSAN storage

Number of vSAN capacity disks	8
Disk type and size for vSAN capacity disks	Hard Drive: 960 GB SSD
Number of vSAN cache disks	2
Disk size for vSAN cache disks	Hard Drive: 960 GB SSD
Enable vSAN compression and deduplication	true

Networking

Enable private NICs only	false
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Licenses

vSphere license - Enterprise Plus	Include with purchase
vCenter Server license - Standard	Include with purchase
NSX license	Include with purchase(Base)
vSAN license	Include with purchase(Advanced)

Close

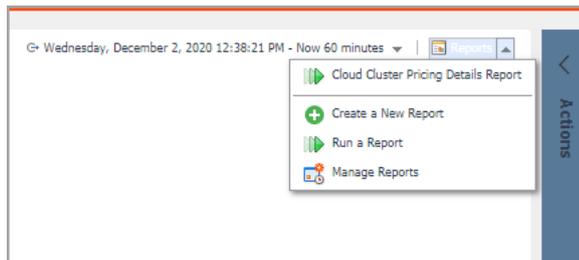
- Recommended Server Information, including *CPU Model*, *RAM*, *Network Interface*, *Server Quantity*, *Storage Type*, and *Storage Capacity*.
- Compare *Cloud Cost* and *On-Premises Cost*.

Click *Cloud Cost* to display *Pricing Details of Cloud Cluster* page. The *Pricing Details* page displays the estimated total price for *Bare Metal Servers*, *Additional Networks*, *License*, *Support and Services*, and *Active Directory*.

IBM Cloud Migration Assessment > Pricing Details of Cloud Cluster test		
Estimated Total Price		\$10167.20/mo
Bare Metal Servers		\$1538.80/mo x 4
vSAN capacity disks	Hard Drive: 960 GB SSD	\$103.00 x 2
vSAN cache disks	Hard Drive: 960 GB SSD	\$103.00 x 2
First PCIe Component	M.2 for OS Boot	\$30.00
Disk Controller	RAID	\$51.50
Operating System	VMware Server Virtualization 6.7 Update 2	\$250.00
Uplink Port Speed	10 Gbps Dual Public & Private Network Uplinks (Unbonded)	\$206.00
Power Supply	Redundant Power Supply	\$10.30
RAM	64 GB RAM	\$227.00
Server	Bare Metal Server Intel Xeon Silver 4110 Processor (2U; 12 drives; 16 Cores; 2.10 GHz)	\$350.00
Server Security	Intel TXT(Trusted Execution Technology)	\$2.00
Additional Networks		\$64.00/mo
Public (only) Secondary VLAN IP Addresses	16 Portable Public IP Addresses	\$32.00 x 2
License		\$2408.00/mo
Software License	vCenter Server Appliance 6.x	\$0.00
Software License	VMware NSX Base 6.0	\$174.00 x 4
Software License	VMware vSAN Advanced Tier 1 0 - 20 TB 6.x	\$428.00 x 4
Support and Services		\$1400.00/mo
Service	Service & Support	\$350.00 x 4
Active Directory		\$140.00/mo
Operating System	Windows Server 2019 Standard Edition (64 bit)	\$53.10
First Disk	100 GB (SAN)	\$10.60
Uplink Port Speeds	1 Gbps Private Network Uplink	\$10.30
Computing Instance	2 x 2.0 GHz or higher Cores	\$41.28
RAM	8 GB	\$24.72

- Pricing Details Report

In *Pricing Details* page, click *Reports > Cloud Cluster Pricing Details Report* to generate a *Pricing Details* report.



- Click the number of servers in *All Available Servers* column to open an *All Cloud Servers* dialog box. Users can select another server in the list. Once another available server is chosen, the system will update server information in the selected cloud cluster and recalculate the Cloud Cost (server unit cost * quantity).

All Cloud Servers

Select another cloud server for cluster test

The system recommends the least expensive cloud server for the cluster by default, but an alternate server can be selected for the cluster from the following table.

	CPU Model	RAM	Quantity	Storage Capacity	Total Cost
<input checked="" type="radio"/>	Bare Metal Server Intel Xeon Silver 4110 Processor (2U; 12 drives; 16 Cores; 2.10 GHz)	64 GB RAM	4	6.98 TB (8)	\$10167.2/Month
<input type="radio"/>	Bare Metal Server Dual Intel Xeon Silver 4210 (2U; 12 drives; 20 Cores; 2.20 GHz)	64 GB RAM	4	6.98 TB (8)	\$10167.2/Month
<input type="radio"/>	Bare Metal Server Intel Xeon Silver 4110 Processor (2U; 12 drives; 16 Cores; 2.10 GHz)	96 GB RAM	4	6.98 TB (8)	\$10395.2/Month
<input type="radio"/>	Bare Metal Server Dual Intel Xeon Silver 4210 (2U; 12 drives; 20 Cores; 2.20 GHz)	96 GB RAM	4	6.98 TB (8)	\$10395.2/Month
<input type="radio"/>	Bare Metal Server Intel Xeon Silver 4110 Processor (2U; 12 drives; 16 Cores; 2.10 GHz)	128 GB RAM	4	6.98 TB (8)	\$10627.2/Month
<input type="radio"/>	Bare Metal Server Dual Intel Xeon Silver 4210 (2U; 12 drives; 20 Cores; 2.20 GHz)	128 GB RAM	4	6.98 TB (8)	\$10627.2/Month
<input type="radio"/>	Bare Metal Server Intel Xeon Gold 5120 Processor (2U; 12 drives; 28 Cores; 2.20 GHz)	64 GB RAM	4	6.98 TB (8)	\$10643.2/Month
<input type="radio"/>	Bare Metal Server Dual Intel Xeon Gold 5218 (2U; 12 drives; 32 Cores; 2.30 GHz)	64 GB RAM	4	6.98 TB (8)	\$10643.2/Month
<input type="radio"/>	Bare Metal Server Intel Xeon Gold 5120 Processor (2U; 12 drives; 28 Cores; 2.20 GHz)	96 GB RAM	4	6.98 TB (8)	\$10871.2/Month
<input type="radio"/>	Bare Metal Server Dual Intel Xeon Gold 5218 (2U; 12 drives; 32 Cores; 2.30 GHz)	96 GB RAM	4	6.98 TB (8)	\$10871.2/Month
<input type="radio"/>	Bare Metal Server Intel Xeon Silver 4110 Processor (2U; 12 drives; 16 Cores; 2.10 GHz)	192 GB RAM	4	6.98 TB (8)	\$11087.2/Month
<input type="radio"/>	Bare Metal Server Dual Intel Xeon Silver 4210 (2U; 12 drives; 20 Cores; 2.20 GHz)	192 GB RAM	4	6.98 TB (8)	\$11087.2/Month
<input type="radio"/>	Bare Metal Server Intel Xeon Gold 5120 Processor (2U; 12 drives; 28 Cores; 2.20 GHz)	128 GB RAM	4	6.98 TB (8)	\$11103.2/Month
<input type="radio"/>	Bare Metal Server Dual Intel Xeon Gold 5218 (2U; 12 drives; 32 Cores; 2.30 GHz)	128 GB RAM	4	6.98 TB (8)	\$11103.2/Month
<input type="radio"/>	Bare Metal Server Intel Xeon Gold 6140 Processor (2U; 12 drives; 36 Cores; 2.30 GHz)	64 GB RAM	4	6.98 TB (8)	\$11135.2/Month
<input type="radio"/>	Bare Metal Server Dual Intel Xeon Gold 6248 (2U; 12 drives; 40 Cores; 2.50 GHz)	64 GB RAM	4	6.98 TB (8)	\$11135.2/Month
<input type="radio"/>	Bare Metal Server Intel Xeon Gold 6140 Processor (2U; 12 drives; 36 Cores; 2.30 GHz)	96 GB RAM	4	6.98 TB (8)	\$11363.2/Month
<input type="radio"/>	Bare Metal Server Dual Intel Xeon Gold 6248 (2U; 12 drives; 40 Cores; 2.50 GHz)	96 GB RAM	4	6.98 TB (8)	\$11363.2/Month
<input type="radio"/>	Bare Metal Server Intel Xeon Gold 5120 Processor (2U; 12 drives; 28 Cores; 2.20 GHz)	192 GB RAM	4	6.98 TB (8)	\$11563.2/Month
<input type="radio"/>	Bare Metal Server Dual Intel Xeon Gold 5218 (2U; 12 drives; 32 Cores; 2.30 GHz)	192 GB RAM	4	6.98 TB (8)	\$11563.2/Month
<input type="radio"/>	Bare Metal Server Intel Xeon Gold 6140 Processor (2U; 12 drives; 36 Cores; 2.30 GHz)	128 GB RAM	4	6.98 TB (8)	\$11595.2/Month

Save Cancel

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