

Foglight® Cost Director 5.7.7
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.

Foglight for NetVault User and Administration Guide
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Software Version - 5.7.7

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Understanding Foglight[®] Cost Director

- [About Foglight Cost Director](#)
- [Installation Requirements](#)
- [Getting Started](#)
- [Recommended additional reading](#)

About Foglight Cost Director

Business are challenged with know which workloads to move to the cloud. Foglight[®] Cost Director alleviates this problem by allowing businesses to know the true costs associated with running your data center to help you truly understand the cost of new VMs, environment growth, planned changes, and whether or not Cloud is going to really save you money.

Installation Requirements

Foglight Cost Director comes installed on Foglight for Virtualization, Enterprise Edition and can be installed on a Foglight Management Server.

Foglight Cost Director requires the following cartridges for data collection:

- 1 Virtual-VMware-Base-5.7.7.car

i | **NOTE:** After installing the Virtual-VMware-5.7.7.car cartridge, existing vCenter agents (VC agents) must be updated using the Update Agent button in the VMware Environment > Administration tab.

- 2 OptimizerAutomation-5.7.7.car
- 3 CommonAnalytics-5.7.7.car
- 4 Virtual-HyperV-5.7.7.car
- 5 Cost-Director-5.7.7.car

While Foglight for Virtualization, Enterprise Edition 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 Cost Director, and for details about system requirements and version compatibility, see the Foglight Cost Director Release Notes.

Getting Started

- [Enabling the Quest Pricing Cloud & Data Protection Portal Integration](#)
- [Creating a default Price Plan](#)

Enabling the Quest Pricing Cloud & Data Protection Portal Integration

The Quest Pricing Cloud is a live DB of Infrastructure as a Service Offerings and their associated costs. Pricing data is collected daily from the leading public cloud and participating managed service providers (MSPs). You can select the *Enabling the Quest Pricing Cloud & Data Protection Portal Integration* checkbox, and then click **Start** to interface with Foglight Cost Director. Then you will be directed to the **Initialize Cost Director** dashboard. For more information, see [Creating a default Price Plan](#) on page 6.

Creating a default Price Plan

When you start up Foglight Cost Director the first time, you will be directed to the **Initialize Cost Director** dialog box which walks you through the procedure of setting up the default Price Plan.

Figure 1. Initialize Cost Director

The screenshot shows the 'Initialize Cost Director' dialog box. The left sidebar has a 'Your Business' section with sub-items: 'Datacenter Costs', 'VM Ownership', and 'Costs Summary'. The main content area is titled 'Your Business' and contains the following text: 'To learn and expose the costs of your datacenter we need to create an Organization, at least one business unit, the default cost allocations for all virtual machines and the initial ownership of your IT assets.' Below this text are two sections: 'Organization' and 'Business Unit'. Each section has five input fields: 'Name', 'Location Name' (with a location pin icon), 'Longitude', 'Latitude', and 'Description'. At the bottom right of the dialog are four buttons: 'Previous', 'Next', 'Finish', and 'Cancel'.

To create the default Price Plan:

- 1 Log in to the Foglight browser interface and make sure the left navigation panel is open.
- 2 On the navigation panel, under *Homes*, click **Cost Director**.
The **Cost Director** dashboard opens.
- 3 In the **Cost Director** dashboard, click **Activate**.
The **Initialize Cost Director** dashboard opens.

- 4 *Your Business*: Create an Organization and a Business Unit and click **Next**. Then the cost allocations for all virtual machines and the initial ownership of your IT assets will be assigned to the created Organization and Business Unit by default.

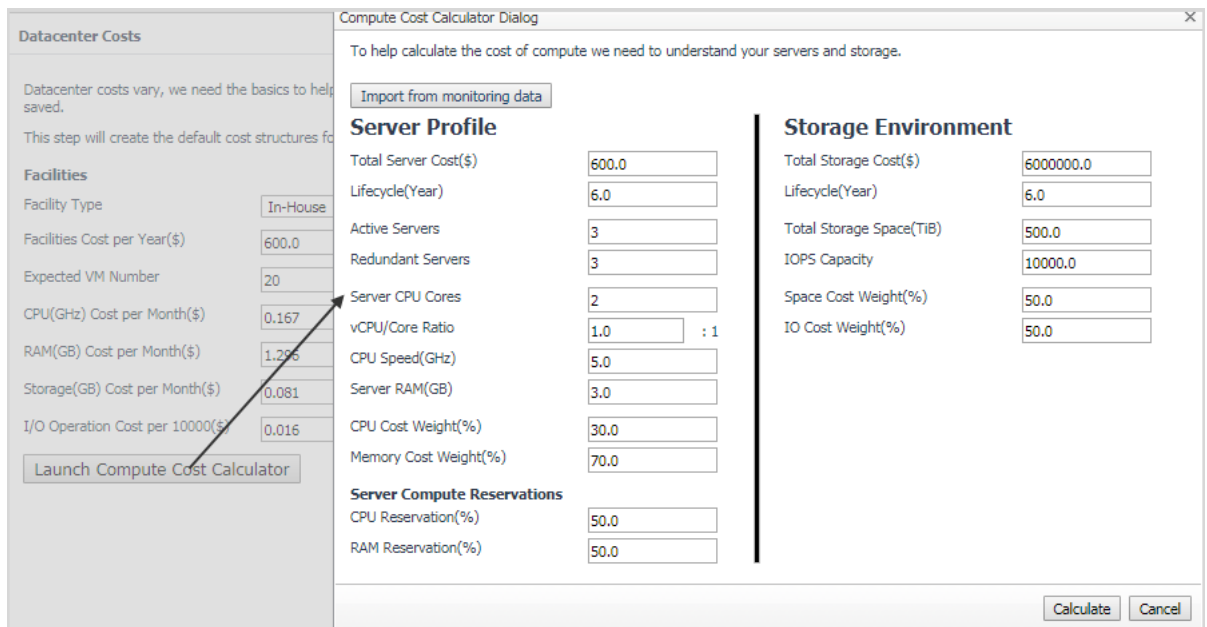
i | **TIP:** The search function is provided for better locating your position. The *Location Name*, *Longitude*, and *Latitude* will be filled in automatically after you click **Apply** in the *Search* dialog box.

- Organization: Specify the *Name*, *Location Name*, *Longitude*, *Latitude*, and *Description*, as needed.
- Business Unit: Specify the *Name*, *Location Name*, *Longitude*, *Latitude*, and *Description*, as needed.

5 *Datacenter Costs*: A Price Plan includes five parts:

- Hypervisors Cost per year: Specify the Hypervisors cost in dollars.
- Windows Server Cost per year: Specify the Windows Server cost in dollars.
- RHEL Cost per year: Specify the RHEL cost in dollars.
- Hourly Labor Cost per year: Specify the Hourly Labor cost in dollars.
- Facilities Cost per year: Specify the *Facility Type*, *Facilities Cost Per Year*, *Expected VM Number*, *CPU Cost per Month*, *RAM Cost per Month*, *Storage Cost per Month*, and *I/O Operation Cost per 10000*.

Regarding *CPU Cost per Month*, *RAM Cost per Month*, *Storage Cost per Month*, and *I/O Operation Cost per 10000*, Foglight Cost Director also provides a calculator to help you populate these four fields for your servers and storage. Click **Launch Compute Cost Calculator** on the *Datacenter Costs* view.



The following lists the formula of populating:

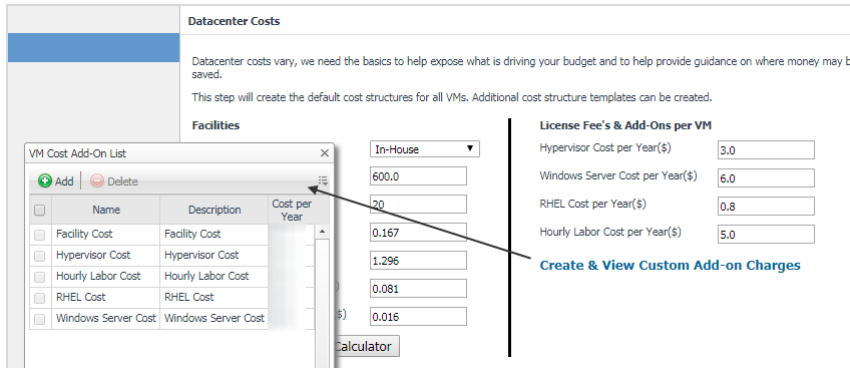
- $CPU\ Cost\ per\ Month = (Total\ Servers\ Cost \times CPU\ Cost\ Weight\%) / (Server\ Lifecycle\ Year \times 12\ month) \times Active\ Server\ Count \times Server\ CPU\ Cores \times CPU\ Speed \times vCPU/Cores\ Ratio \times (1 - CPU\ Reservation\%)$
- $RAM\ Cost\ per\ Month = (Total\ Servers\ Cost \times Memory\ Cost\ Weight) / (Server\ Lifecycle\ Year \times 12\ month) \times Active\ Server\ Count \times Server\ RAM \times (1 - RAM\ Reservation\%)$
- $Storage\ Cost\ per\ Month = (Total\ Storage\ Cost \times Space\ Cost\ Weight\%) / (Storage\ Lifecycle\ Year \times 12\ month) \times (Total\ Storage\ Space \times 1024)$
- $I/O\ Operation\ Cost\ per\ 10000 = 10000 \times (Total\ Storage\ Cost \times IO\ Cost\ Weight\%) / (IOPS\ Capacity \times Storage\ Lifecycle\ Year \times 365 \times 24 \times 3600)$

Taking numbers in the above figure for example, you can get the following values:

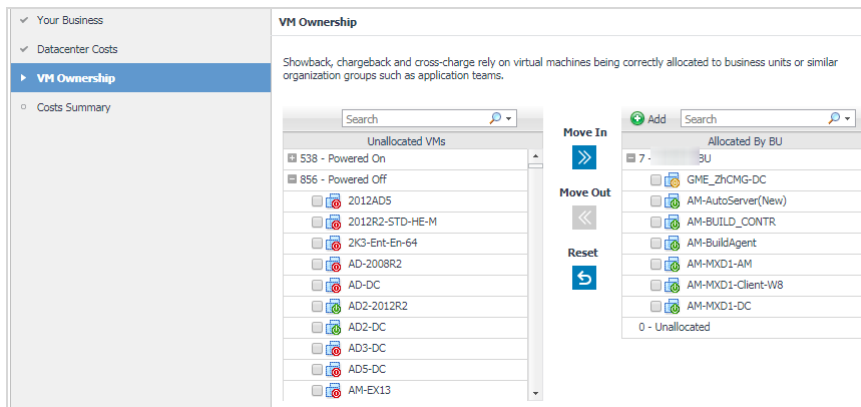
- $CPU\ Cost\ per\ Month = 600 \times 0.3 / 6 \times 12 \times 3 \times 2 \times 5 \times 1 \times (1 - 50\%) = 0.167$
- $RAM\ Cost\ per\ Month = 600 \times 0.7 / 6 \times 12 \times 3 \times 3 \times (1 - 50\%) = 1.296$
- $RAM\ Cost\ per\ Month = 6000000 \times 50\% / 6 \times 12 \times 500 \times 1024 = 0.081$
- $I/O\ Operation\ Cost\ per\ 10000 = 100000 \times 6000000 \times 50\% / 100000 \times 6 \times 365 \times 24 \times 3600 = 0.016$

6 (Optional): After you get the Cost Structure, click **Create & View Custom Add-on Charges** to view the default Price Plan, add another Add-on Cost, or remove Add-on Cost if needed.

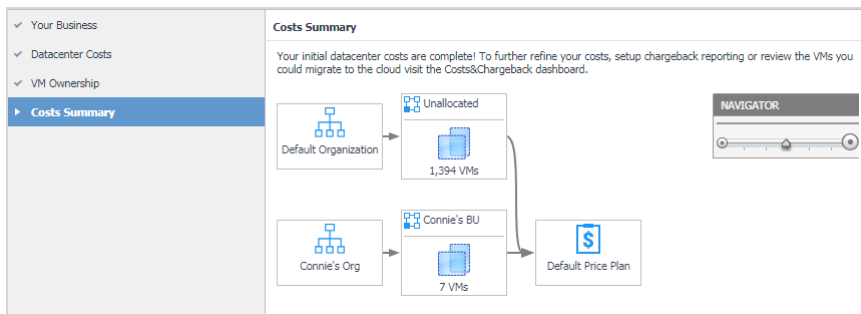
NOTE: The default Price Plan cannot be removed.



7 **VM Ownership:** Select the unallocated VMs from the left table, and then click **Move In** to assign the selected virtual machines to the specified Business Unit, as needed. Click **Next**.



8 **Costs Summary:** View the topology dependency on the Costs Summary view, and then click **Finish**.



9 The creation of the default Price Plan is completed, and then the *Cost Director > On Premises* dashboard opens by default. Also you can view the detailed information about created *Organization*, *Business Unit*, *Default Price Plan*, and *Topology dependency* view through the *Cost Director > Administration* dashboard.

Recommended additional reading

As tasks on the **Chargeback** dashboard and the **Cloud Cost** dashboard are commonly used throughout Foglight and FVE products, Quest recommends that you read the following guides to understand both dashboards and the relevant tasks.

- Chapter “*Reporting on Your Enterprise*” in the *Foglight User Guide*.
- Chapter “*Cost Tab*” in the *Foglight Hybrid Cloud Manager for Azure User and Administration Guide*.
- Chapter “*Bubble Chart User Guide*” and “*Scatter Chart User Guide*” in the Web Component Reference.

All data and metrics, which are presented and calculated by Foglight Cost Director, are from the Foglight for VMware cartridge. Quest also recommends that you read through the *Foglight for VMware User and Reference Guide & Foglight for VMware Installation Guide* to get a comprehensive understanding about the Foglight for VMware.

Using Foglight Cost Director

- [On-Premises tab](#)
- [Administration tab](#)

On-Premises tab

The *On-Premises* dashboard displays the statistic total cost of organizations, business units, and virtual machines in the last 7/30/90 days. Metrics and charts in this tab will be updated every day or you could click the **Recalculate** button to manually update all charts. To access this dashboard, under *Homes*, click **Cost Director**. This dashboard consists of the following two parts:

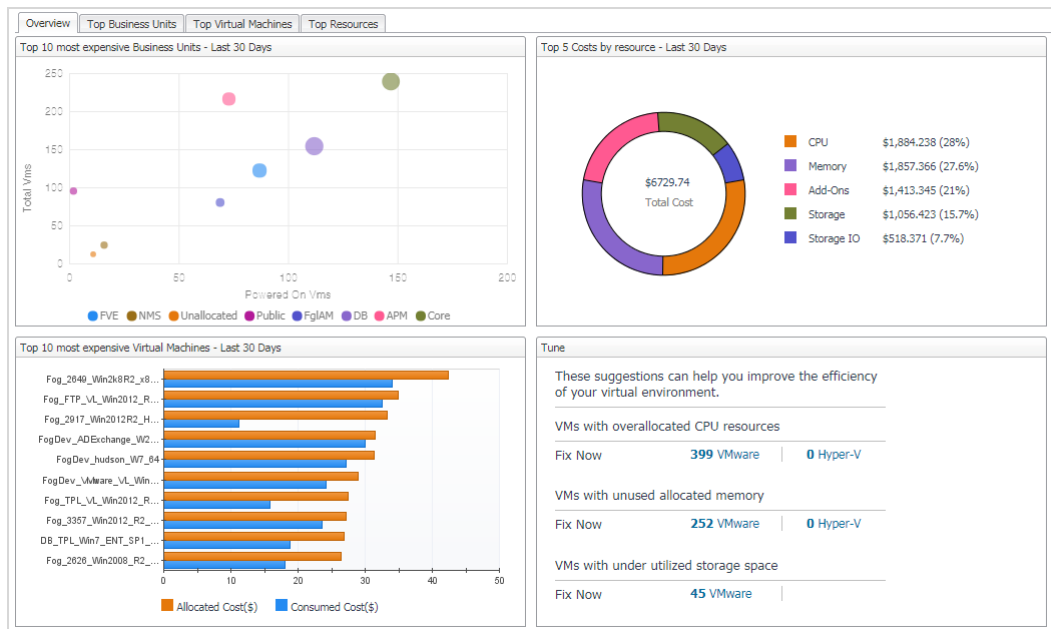
- Filters for showing resource costs, which includes the following three conditions:
 - *View by*: Calculate the resource costs based on Allocated costs or Consumed costs. *Allocated* is selected by default.
 - *Organization*: Lists all available organizations.
 - *Time Range*: Provides three time period of metrics calculation. *Last 30 Days* is selected by default.
- The [On-Premises charts](#), which appears on the On-Premises dashboard by default after you click **Cost Director > On-Premises**.

On-Premises charts

The **On-Premises** charts appear on the rOn-Premises dashboard by default after you click **Cost Director > On-Premises**, which includes the following four tabs:

- *Overview*: Shows *top 10 most expensive Business Units - Last N Days*, *Top 5 Costs by resource - Last N Days*, *Top 10 most expensive Virtual Machines - Last N Days*, and Tuning information.
- *Top Business Units*: Shows the detailed information of the Business Unit that allocates or consumes the most costs.
- *Top Virtual Machines*: Shows the detailed information of the Virtual Machines that allocates or consumes the most costs.
- *Top Resources*: Shows the detailed information of the Resource that allocates or consumes the most costs.

Figure 2. Summary - All Servers view



Administration tab

The *Administration* dashboard which appears after clicking **Cost Director > Administration**, which sets up and change the configurations of:

- *Organizations*: Lists the available organizations and provides you with the options to add, delete, and edit the selected organizations.
- *Business Units*: Lists the available business units, provides you with the options to add, delete, and edit the selected business units, and allows you to assign an organization or price plan for the selected business unit.
- *Virtual Machines*: Lists the available virtual machines, provides you with the options to add, delete, and edit the selected business units, and allows you to assign a business unit or price plan for the selected virtula machine.
- *Compute Price Plans*: Lists the available price plans of compute resources and provides you with the options to add, delete, and edit the selected price plan.
- *Storage*: Lists VMware datastore items and assigns the existing storage plan for the selected range.
- *Storage Price Plans*: Lists the available price plans of storage and provides you with the options to add, delete, and edit the selected price plan.
- *Topology*: The *Topology* tab visualizes the relationships between the objects in your environment through an interactive dependency map. The map illustrates how different components relate to each other, and the levels of the available resources available to them. The *Topology* tab provides a quick and easy way to view components grouped by organization.

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