Quest™

Foglight™ Chargeback 5.7.3

User Guide

Quest Software Inc.
Attn: LEGAL Dept.
4 Polaris Way
Aliso Viejo, CA 92656

Refer to our website (https://www.quest.com) for regional and international office information.

Patents

Quest Software is proud of our advanced technology. Patents and pending patents may apply to this product. For the most current information about applicable patents for this product, please visit our website at https://www.quest.com/legal.

Trademarks

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 Chargeback User Guide
Updated - April 2017
Foglight Version - 5.7.5.8
Cartridge Version - 5.7.3

Contents

1

Using Foglight Chargeback

Foglight™ Chargeback generates detailed reports on who spends what inside your IT infrastructure. You are an IT manager with hundreds, if not thousands of virtual machines (VM) or physical machines (PM) in your IT Infrastructure. Virtual machines can be added quickly and appear to be free of cost. As customers add workloads to their virtual environments, determining the true cost of each virtual machine is an important component in managing server sprawl. As IT budgets become more constrained, chief information officers are asked to inform senior management what the IT infrastructure is actually costing, broken down by departments, for example, accounting and human resources. Organizations spend hundreds of thousands of dollars procuring high-end hosts, virtualization software, and storage area network (SAN) disk storage. IT finance needs a way to determine actual resource utilization and fairly charge internal departments for their system utilization.

- Foglight Chargeback Host Support
- Understanding Chargeback Models
- Exploring the Chargeback Dashboard
- Example Use Case for Chargeback

Foglight Chargeback Host Support

Foglight™ Chargeback gathers data from both Hyper-V and VMware virtualization software. To gather data and build chargeback reports using Foglight Chargeback, you must install one or both of the following:

- Foglight for VMware
- Foglight for Hyper-V

Understanding Chargeback Models

Foglight™ Chargeback supports industry standard models to determine IT infrastructure costs. These models provide IT managers with the ability to monitor and report the costs associated with host machine usage within data centers. Foglight Chargeback provides the following models:

- Tiered Flat Rate Model on page 5
- Measured Resource Utilization Model on page 6
- Add Ons Model on page 9

Tiered Flat Rate Model

The Tiered Flat Rate chargeback model can be thought of as charging a flat rate for host machine cost. Another way to look at it would be your telephone bill. You are charged a flat rate to use the phone each month regardless of usage.

A tier is a level of expense for a host machine. The Tiered Flat Rate model divides IT costs into levels of expense. For example, an organization has decided to build a new virtual infrastructure, mandating that any new server requested by the various business units of the company must first be created as a virtual machine. Only after verifying that a virtual machine cannot properly handle the application workload, would the physical server options be explored.

To simplify the budgetary process for new systems, the organization could create three core configurations tiers and assign the following fixed cost to each tier:

- Tier 1, $900/Month—Single Proc, 1 GB Memory, 10 GB Storage
- Tier 2, $1500/Month—Dual Proc, 2 GB Memory, 20 GB Storage
- Tier 3, $2500/Month—Quad Proc, 4 GB Memory, 40 GB Storage

Business units may customize the configuration and pay an additional cost per megabyte of memory or gigabyte of storage space, based on the cost units for the particular resource in question.

Pros and Cons of Using the Tiered Flat Rate Model

The Tiered Flat Rate model assesses costs as a monthly flat rate. As the costs are calculated in this manner, changes to tier definitions take place immediately and can be applied in a retroactive manner. For example, running a Tiered Flat Rate report with the tiers configured in different ways will generate different costs against the same historical time period.

When using the Tiered Flat Rate model, a department is charged a flat rate for their tier of VMs (for example, Tier 1 is one vCPU, $100/month) and know what their costs will be each month. The drawback of using the Tiered Flat Rate model is getting departments to agree on tier rates. For example, if the VM is turned off, the department is still charged.

Measured Resource Utilization Model

IMPORTANT: Measured Resource Usage Full and Partial Cost calculations begin initial generation of data after servers have been assigned to the templates. These calculations are based on current usage assessments. The Measured Resource Usage costs are not retroactive. The historical data may not provide the precision needed to generate accurate hourly costs of the past usage. If any changes are made to a Measured Resource Usage Host Template, the changes take effect in the costs on the next hourly calculation. These changes are not retroactive. The costs have already been calculated based on the previous configuration.

The Measured Resource Utilization Model (MRU) can be thought of as the charges you would get from the power company; you are charged for what you use. With the MRU model, each VM is only charged for what it uses of its server's resources. MRU calculations are performed by determining each virtual machine's actual utilization and applying the appropriate cost-unit calculation for each resource based on the resource weighting configuration. The MRU model provides methods for calculating costs based on the following types of usage:

- Full Cost Recovery on page 7
- Partial Cost Recovery on page 7

Understanding MRU Chargeback Calculations

Foglight™ Chargeback runs MRU hourly background calculations. When the calculation runs, it inventories where all of the VMs are on each server and assumes, (for calculation simplicity, ignoring VMotion events) that each VM has been resident on that server host for the entire hour.

The hourly calculation determines both full cost recovery and partial cost recovery charges automatically. You cannot turn it off or adjust it in any way. The calculation is based on the weights (percentages) for the server CPU weight, memory weight, network weight, and Disk IO weight used by the VMs resident on that server.

The MRU calculations do not begin to generate until after the servers are assigned to the templates. At the next hour, the background calculations are performed and continue from that point. The calculations are based on detailed current usage assessments; the MRU calculations are not retroactive. The historical data may not provide the precision needed to generate accurate hourly costs of the past usage.

Similarly, if any change is made to an MRU host template, these changes take effect beginning with the next hourly cost calculations. These changes are also not retroactive because the costs have already been calculated based on the previous configuration.

MRU templates should be configured to calculate the charges needed to recover the cost of an individual server even when multiple servers in the infrastructure have identical hardware. Each server that is assigned to a template individually recovers the costs outlined in the template definition.

An organization can simultaneously and indefinitely run reports using the Tiered Flat Rate + Add Ons (see Add Ons Model) or MRU + Add Ons models to compare the chargeback costs calculated using each model. Since the organization ultimately needs end user department buy in, the chargeback model(s) are straight-forward and fair. At some point an organization may decide to use TFR + Add Ons or MRU + Add Ons.

Full Cost Recovery

Full cost recovery means that a department is charged for their VM usage of the server in order to recoup all the costs of operating that server. Full cost recovery involves an organization where the information technology (IT) departments cannot be a cost center. IT cannot be liable for servers and infrastructure costs. All IT costs must be fully recovered by charging customers or business units. With this chargeback method, the number of virtual machines (VMs) running on a host has an effect on the calculated cost for each VM. As a simple example, in the first month a $5000 host has five VMs all performing identically across all resources. The overall cost is approximately $1000 per VM to fully recover the cost of the infrastructure. The next month, IT has added five VMs, bringing the total to ten. Now each virtual machine costs $500 to recover the cost, which is half the cost of the previous month.

In this example, the cost for each VM originally came out to $1000 based upon even usage across the VMs and that the sum of the costs of the VMs needs to reach the $5000 monthly cost of the server. When the additional VMs were added for the second month, the costs come out to $500 per VM at the end of that month, keeping in mind that the sum of the VM costs still add up to the $5000 monthly cost for the server. The costs for the first month remain at $1000 per VM. These costs were calculated based on the VM usage and server template assignment at that time.

This method eventually balances itself out over time as the virtual infrastructure reaches an acceptable capacity. This helps virtualization administrators provide a balanced virtual infrastructure of cost and performance, providing IT Management with the capability to drive proper hardware utilization and prevent over-allocation of virtual hardware.

Partial Cost Recovery

For partial cost recovery, a department is charged for their use against the capacity of the server. Partial cost recovery is used in instances where IT absorbs costs for portions of the infrastructure that are going unused. The costs calculated for the VMs adjust based on the overall utilization of the server against its capacity. This allows the IT department recover costs for the load that each department puts on the infrastructure and only use the IT department budget for the cost of the unused capacity.

Example of Measured Resource Utilization Cost Calculation

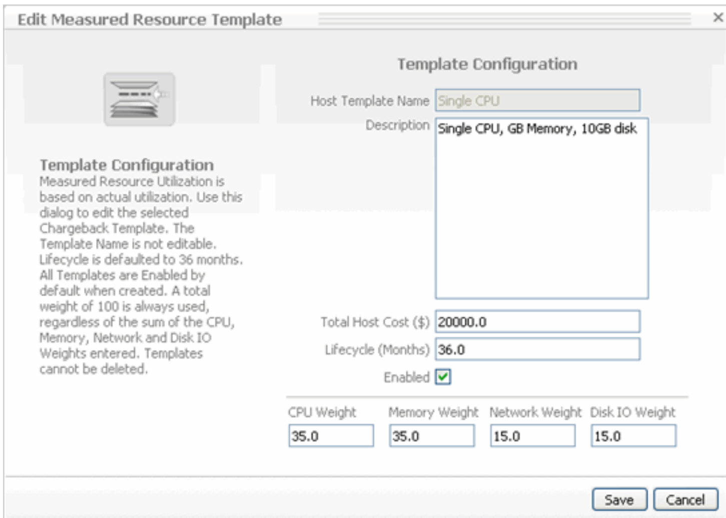
The following prerequisites are used:

- The host is a virtual machine.
- The server of the host has been assigned a MRU template.
- If the virtual machine is powered off, the cost is 0.0.
- If the server of the host has not been assigned a MRU template, the cost is 0.0.
- If the host is not a virtual machine, the cost is 0.0.

The following example shows the template used to calculate the Measured Resource Utilization model. The user enters the total server cost, the lifecycle of the server, the resource weighting based on a percentage model that considers the core four resources:

- CPU weight
- Memory weight
- Disk weight
- Network IO weight

Figure 1. Measured Resource Template example



You can specify any percentage value to the core resources. If the values sum is more than 100 percent, IT recovers more than the cost of the server. If the values sum to less than 100 percent, IT will not recover the total cost, even in Full Cost Recovery mode.

MRU templates are assigned to VMware (ESX) or Hyper-V servers. MRU Full and Partial Cost are calculated for the Virtual Machines hourly, based on the template assigned to the server they reside on.

Entering User Data

The following provides the example data entered:

- Total Host Cost (Server Cost) = 20,000
- Lifecycle(months) = 36
- CPU Weight = 35
- Memory Weight = 35
- Network Weight = 15
- Disk IO Weight = 15
- Total Weight = 100; (A total weight of 100 is always used, regardless of the sum of the actual weights.)
- Hours Per Month = 720

Calculations (Example: CPU Full Cost)

- Monthly Server Cost = Total Server Cost/ Lifecycle(months)
    - Monthly Server Cost = 20000/36
    - Monthly Server Cost = 555.55
- Monthly Server CPU Cost = Monthly Server Cost * CPU Weight / Total Weight (The weight could be CPU Weight, Memory Weight, Network Weight, or Disk IO Weight depending on calculations.)
    - Monthly Server CPU Cost = 555.55 * 35/100

- Monthly Server CPU Cost = 194.44
- Server CPU Cost Per Hour = Monthly Server CPU Cost / Hours Per Month:
  - Server CPU Cost Per Hour = 194.44/720
  - Server CPU Cost Per Hour = 0.27
- VMs CPU Full Cost Per Hour = Average VM CPU Utilization (usedHz) Per Hour/Average Server CPU Utilization (sum of used Hz values for VMs on the Server host) Per Hour * Server CPU Cost Per Hour
  - Average VM CPU Utilization (usedHz) Per Hour = 364 MHz
  - Average Server CPU Utilization (usedHz) Per Hour = 3,577 MHz
  - VMs CPU Full Cost Per Hour = 364 /3,577 * 0.27
  - VMs CPU Full Cost Per Hour = 0.02

Partial Cost Recovery

An IT organization has a $5000 host with five virtual machines all operating at about the same performance across all resources. Those resources are taking up about 25 percent of the overall host's utilization. The cost for each VM in this scenario is $250, based on 25 percent of $5000 divided evenly across five VMs, since all VM utilization is identical. The next month, IT adds five virtual machines bringing the total to ten. The host's overall utilization is now 50 percent. The cost for each VM would be $250, based on 50 percent utilization of $5000 divided evenly across ten VMs, since all VM utilization is identical.

In this example the costs of the five VMs comes out to $250 per VM at the end of first month based on the overall even usage and the load on the server hosting the VMs. When the additional VMs are added for the second month, the costs come out to $250 per VM at the end of that month based on the overall even usage of the VMs and the increased usage of resources on the server. The costs for the first month remain at $250 per VM for the five VMs that were used in that month. These costs are not spread back out over the five VMs added in the second month. These costs were calculated based on the VM usage and server template assignment at that time.

Pros and Cons of the Measured Resource Utilization Model

Using the Measured Resource Utilization model provides a way to calculate chargeback costs that are proportional to how VMs consume the resources available on the servers in the IT infrastructure. A downside to using this model is that if changes need to be made to the MRU templates, these changes cannot be applied to the historical MRU costs that have already been calculated.

Add Ons Model

The Add Ons Model provides a way to supplement the charges calculated by the other Foglight™ Chargeback cost models (TFR/MRU) allowing you to get a complete picture of the costs involved with any given machine in the infrastructure. Add Ons are used to include costs that are not easily configured in the TFR and MRU models. These costs can include hardware upgrades, software, licensing, or even infrastructure items such as rack space or power backup units. Add ons are typically modular, stand-alone upgrades added to a given host configuration that increase its value and/or performance within a given environment. Typical examples of add ons include:

- Additional CPUs
- Additional RAM
- Additional network interfaces
- Additional Storage (internal or SAN-based)
- Software installations such as Oracle or MS SQL
- Specific rack space
- Power backups

Add ons can be assigned to hosts in any order, and multiple add ons can be assigned to a given host. Foglight Chargeback is used to configure and assign all add ons to hosts.

Costs in the Add Ons model behave in a way that is similar to Tiered Flat Rate cost model. Each Add On is defined as a constant monthly charge. Because of this, any changes to the definitions of the Add Ons take effect immediately and can produce different costs over the same sets of historical data.

Pros and Cons of the Add Ons Model

Using the Add Ons model in conjunction with one of the other cost models (TFR or MRU) creates a more detailed and accurate cost report for machines in the IT infrastructure. Add Ons can be assigned in very specific ways and provide a method to recover costs for machines based upon their exact usage and purpose. These other costs cannot always be accounted for by the other models which calculate a base cost for the machine in a broader fashion.

A downside to using Add Ons is that they can be used in many ways and assigned to small sets of machines. Their setup and maintenance may take some time to correctly generate costs.

Chargeback Roles

The following role is included with Foglight Chargeback to control access to the Chargeback dashboards and reports:

- **Chargeback Administrator**—This role allows users or groups to access the Chargeback dashboard.

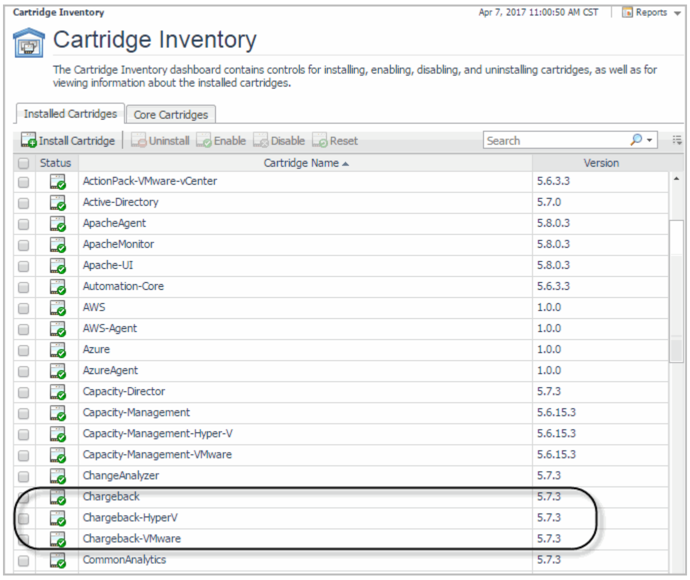
  i **IMPORTANT:** Alternately, having the Administrator role also allows users or groups to access the Chargeback dashboard.

For more information about roles, users, and security, see the *Administration and Configuration Help* and the *Managing Virtualized Environments User and Reference Guide*.

Getting Started

Start by installing the *.car* file containing Foglight™ Chargeback using the Cartridge Inventory dashboard. The cartridge must be enabled to make use of cost models and to generate reports. For complete information about installing and enabling cartridges on the Foglight Management Server, see the *Administration and Configuration Help*.

Figure 2. Cartridge installation



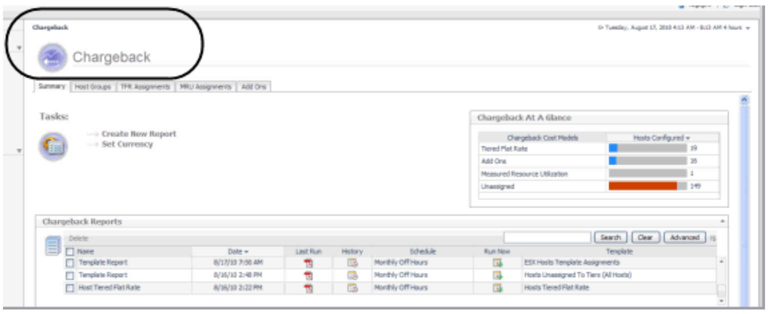
Locating the Chargeback Dashboard

After installing Foglight Chargeback, the Chargeback dashboard appears in the navigation panel under **Homes** and Dashboards.

To access the Chargeback dashboard:

1. Log in to the Foglight browser interface.
2. Ensure that the navigation panel is open.

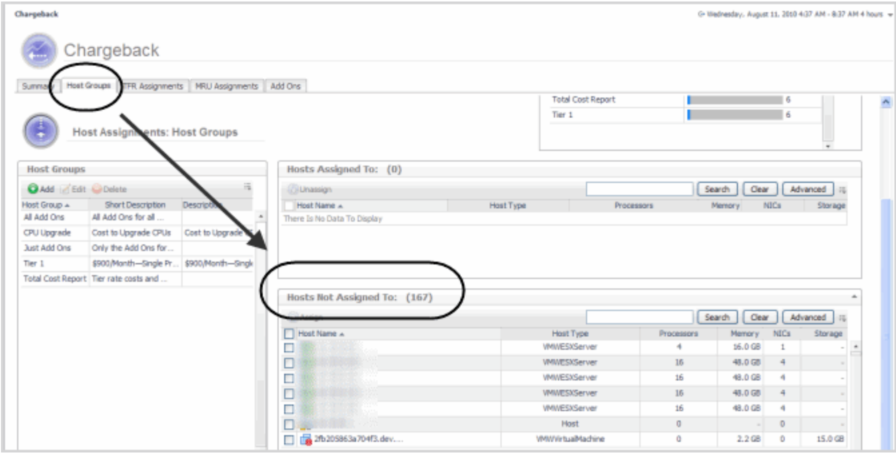
   To open the navigation panel, click the right-facing arrow on the left.
3. On the navigation panel, under *Dashboards* click **Chargeback** > **Chargeback**.



Chargeback Data Collection

Any monitored hosts appear in the Chargeback **Host Not Assigned To** view. No further setup is required to gather data and build chargeback reports.

Figure 3. Chargeback Data Collection



Workflow Basics

Foglight™ Chargeback allows you to group business units together using host groups. For example, you can take all of the VMs for a particular business unit (for example, human resources or accounting) in an IT infrastructure and group them together, apply Foglight Chargeback models, and generate reports in PDF, XML, or Excel. These reports provides summaries of total IT costs for a particular group of hosts, breaking down the cost of individual host machines.

To create a host group and generate a Chargeback report:

1 Determine which chargeback models to use. You use models to associate, monitor, and report the costs associated with virtual or physical machine usage within datacenters (business units). Foglight Chargeback provides the following models:

- Tiered Flat Rate Model on page 5
- Measured Resource Utilization Model on page 6
- Add Ons Model on page 9

2 Add hosts groups to the models. A host group is any number of hosts (virtual or physical) placed together to gather chargeback data. You use host groups to batch VMs in one particular group, gather data, and generate reports. For example, a host group could be created for “All Accounting VMs”. For more information, see Using the Host Groups View on page 22.

3 Set the currency. Set currency allows you to set the labels for the unit of currency you are working with. Changing the currency symbol affects only the text of the currency entered. No exchange rates are applied. For more information, see Set Currency on page 18.

4 Add Tiered Flat Rate assignments:

a Add New Tiers on page 25

b Assign Hosts on page 26

5 Measured Resource Utilization assignments:

c Add Measure Resource Utilization Templates on page 28

d Assign Hosts on page 26 to templates

6 Add Ons definitions:

a Add Add Ons on page 31

b Assigning Hosts on page 32

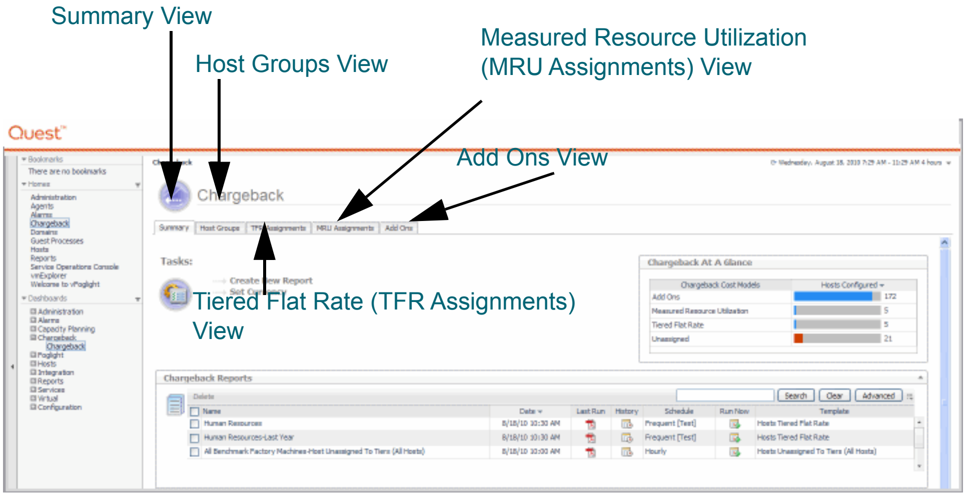
7 Creating New Reports on page 14

Exploring the Chargeback Dashboard

The Chargeback dashboard provides views and wizards that allow you to group host machines into business units (for example, accounting or human resources) apply the applicable models for that group, and create reports on a predetermined time frame that show what a particular group within an IT infrastructure is costing. The following views are provided:

Click the arrow links below for more details.

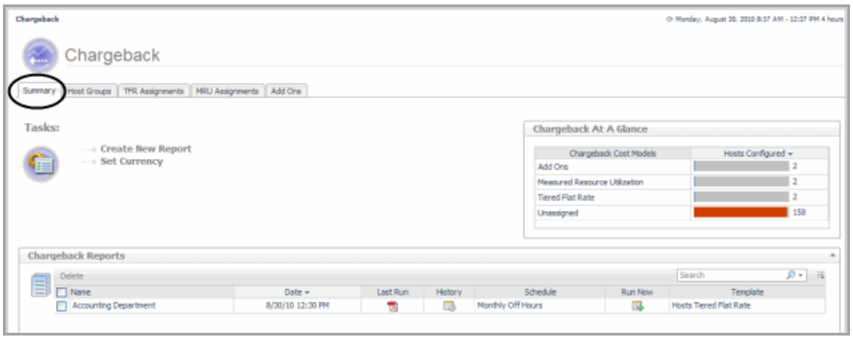
Figure 4. Chargeback dashboard



Summary View

The **Summary** tab provides a wizard to create chargeback reports, allows you to configure currency, view a summary of chargeback cost models, view reports, and monitor chargeback alerts.

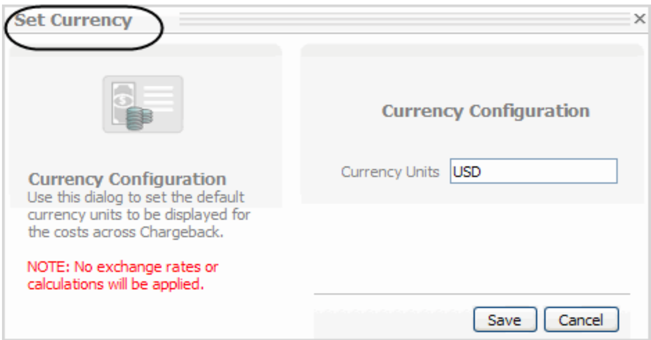
Figure 5. Summary tab



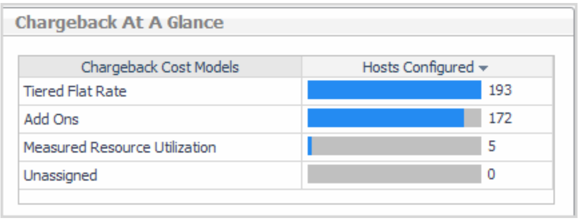
The Summary tab provides the following views:

- **Tasks**—from the Tasks view you can:
  - **Create New Reports**—provides a wizard that allows you to configure a report and select a host group (a group of computers) for a particular business unit. The reports are generated in PDF, Excel, and XML. (For more information, see Creating New Reports on page 14.)

- **Set Currency**—you use Set Currency to set labels for the unit of currency you are working with (for example, $, €, £, ¥, or others). This value is not a currency value. It is a label assigned to the currency value being gathered. No exchange rates are applied. (For more information, see Set Currency on page 18.)



- **Chargeback At A Glance**—this view provides a quick visual summary of which chargeback cost models are available and how many hosts have been configured for each model.



- **Chargeback Reports**—shows all Chargeback reports that are scheduled and a history of previously run reports. Clicking on the name, schedule, or template for a specific report opens the Edit Reports view, allowing report edits or updates. Clicking on the Last Run icon (if enabled) allows immediate access to the last known static report that is available. If the selected report has been scheduled, but has not yet run, the Last Run icon appears dimmed out until the report runs. The History icon provides quick access to the previous reports that are stored in the system. Each column can be sorted, depending on individual preferences. A search field is included to help you quickly find reports. For more information, see Viewing, Running, and Deleting Reports on page 19.

Using the Summary View

From the Summary tab you perform the following tasks:

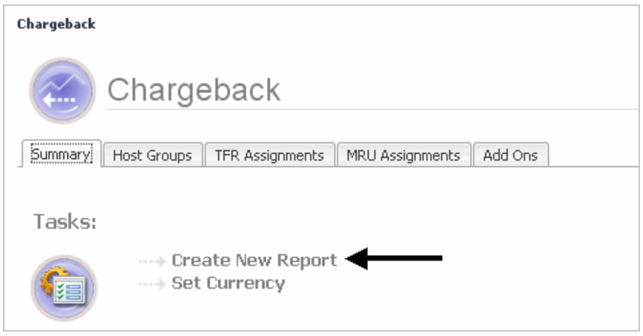
- Creating New Reports on page 14
- Set Currency on page 18
- Editing Reports on page 19
- Viewing, Running, and Deleting Reports on page 19
- Deleting Reports from the Chargeback View on page 20
- Viewing Reports and Deleting Report History on page 20
- Scheduling Reports on page 20
- Manually Running a Report on page 21

Creating New Reports

You create reports to view chargeback data. The reports are generated in PDF, Excel, or XML. The Creating New Reports wizard allows you to name a report and select a host group (a group of computers, virtual or physical) for a particular business unit. If the host group is not available, you create a new group using the Add New Host Groups wizard.

To create a new Chargeback report:

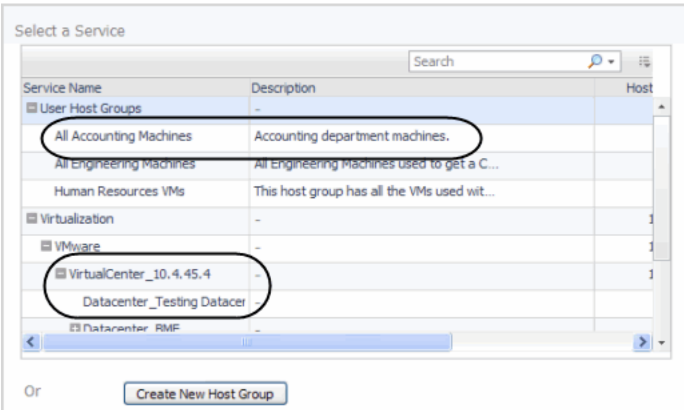
1 Click **Create New Report** under Tasks on the Summary tab.



The Create New Report wizard dialog appears.

2 From this dialog you have two options:

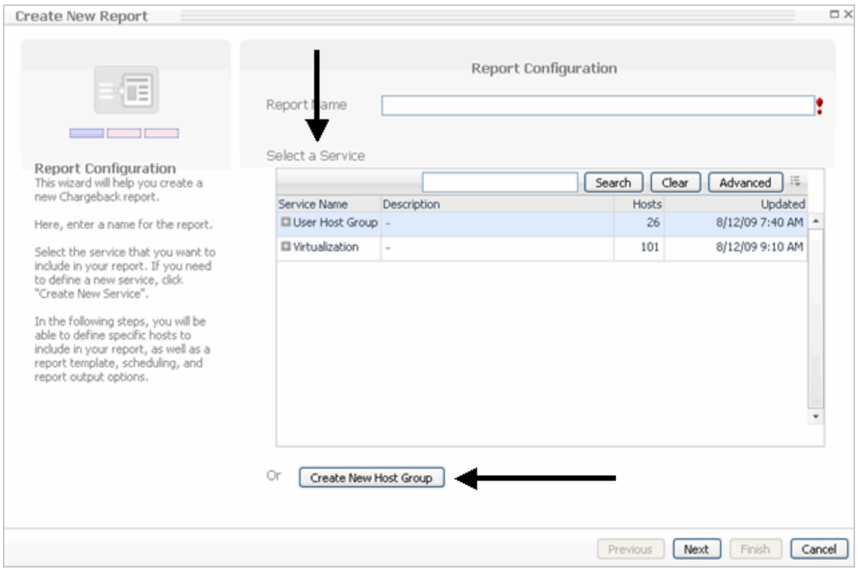
- Select a User Host Group, VMWare, or Hyper-V virtualization service and continue creating the report.



or

- Create a new host group. For more information, see Add New Host Groups on page 22. After creating the new host group, proceed to Step 3.

3 Enter a report name.



4 Select the required service.

5 Click **Next**.

The Host in Services dialog box appears. This table lists the active chargeback cost models (TFR, MRU, and Add Ons). From this list you can:

- Change or add tier assignments to the selected host group. (Next step).
- Change or add template assignments to the selected host group. (Step 7).
- Change or add add-ons to selected host to the selected host group (Step 8).

6 Change tier assignments.

a From the Host In Service view, click the required host name.

The Tier Assignment view appears.

b Select the required tier.

The Tier Assignment view appears.

c Click the required tier and click **Save**.

Add a new tier and click **Save**. For more information, see Add New Tiers on page 25.

7 Change template assignments. Measured resource templates are assigned at the server level. This server is the selected host that lists all the hosts residing on that server.

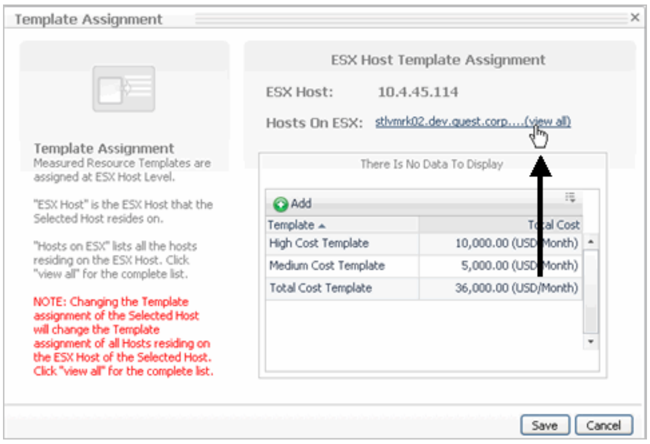
IMPORTANT: Changing the template assignment of the selected host changes the template assignment of all hosts residing on the server.

a From the Host In Service view, click the required measured resource template.

IMPORTANT: Assigning hosts when originally configuring Chargeback models is the most efficient method to add hosts to the Chargeback models for use in reports.

The Template Assignment view appears.

b Click **view all** to view the complete hosts list.



c Click **Cancel** when finished viewing the hosts list.

Select the required template and click **Save.**

Add a new template by clicking . For more information, see Add Measure Resource Utilization Templates on page 28.

d Click **Save** when finished.

8 Add Add Ons to the selected host. Add Ons include third party software costs, HVAC cost, support and subscription cost, floorspace cost, electricity cost, etc. Use this dialog to add a new Chargeback Add On. The Add Ons name is not editable once it is saved. Add Ons cannot be deleted.

a From the Host In Service view, click the required Add On.

The Add On Assignments view appears.

b Select the required Add On by selecting it and clicking **Save**.

Add a new Add On by clicking . For more information, see Add Add Ons on page 31.

c Click **Save** when finished.

9 After making the required changes, click **Next**.

The Advanced Options dialog box appears.

10 Enter the report name and title:

- This report name is assigned to the PDF, Excel, or XML output.
- The report title is entered, but not used in the chargeback report.

11 Foglight Chargeback comes with templates to generate reports. Select the template that meets your chargeback reporting needs. The following templates are provided:

- **Hosts Tiered Flat Rate**—this report shows the tier and add on assignments and their costs of hosts under this service over the specified time range. The add ons and Tiered Flat Rate calculations consider only 30 days (720 hours) a month.
- **Unassigned Hosts Tiered Flat Rate(All Hosts)**—this report lists all the hosts that have not been assigned to a tier. The add ons and Tiered Flat Rate calculations consider only 30 days (720 hours) a month.
- **Hosts Assigned to Disabled Tiers(Service)**—this report shows the list of hosts under this service, if any, that are currently assigned to disabled tiers. These hosts should be assigned to an active tier, or the tiers they are assigned to should be activated. The add ons and tiered flat rate calculations considers only 30 days(720 hours) a month.
- **Hosts Assigned to Disabled Tiers(All Hosts)**—this report shows the list of hosts, if any, that are currently assigned to tiers that are disabled. These hosts should be assigned to an active tier or the

tiers they are assigned to should be activated. The add ons and tiered flat rate calculations considers only 30 days (720 hours) a month.

- **Unassigned Hosts Tiered Flat Rate(Service)**—this report lists the hosts under this service that have not been assigned to a tier. The add ons and tiered flat rate calculations consider only 30 days (720 hours) a month.
- **Measured Resource-Full Cost Recovery**—measured resource utilization's full cost recovery can only be calculated for hosts of type VM. This report shows the CPU, memory, network, storage and total costs of the VMs under this service based on measured resource utilization's full cost recovery. It also reports the VMs associated add ons and their costs. The add ons cost calculations consider only 30 days (720 hours) a month.
- **Measured Resource-Partial Cost Recovery**—measured resource utilization's partial cost recovery can only be calculated for hosts VM. This report shows the CPU, memory, network, storage, and total costs of the VM under this service based on measured resource utilization's partial cost recovery. It also reports the VMs associated add ons and their costs. The add ons cost calculations consider only 30 days (720 hours) a month.
- **Hypervisors Template Assignments**—this report lists the VMware (ESX) and Hyper-V servers that are assigned to templates, the VMware and Hyper-V servers that are assigned to disabled templates, and the VMware and Hyper-V Servers that are not assigned to templates. The servers that are assigned to disabled templates should be assigned to an active template or the templates they are assigned to should be activated.
- **IT Infrastructure Unrecovered Cost**—for partial cost recovery, business units, and customers are not impacted by a virtual infrastructure that is underutilized. This report shows IT Management how much cost is being absorbed by IT not properly performing capacity analysis of their virtual infrastructure or not using full cost recovery. Storage costs are always charged based on the full cost recovery model. No cost is being absorbed by IT management for under utilized storage.

12 Set the advanced scheduling options as required.

- **Enabled checkbox**—checking this checkbox (the default) allows reports to run on its selected schedule. Unchecking the checkbox disables the report from running.
- **Time Range**—select a time range for your report. The default is the **Last Hour** but you typically set it to **This Month** or **Last Month** to get a monthly report.
- **Schedule**—reports can be large, it is best to accept the default of running the report **Monthly Off Hours**. Once configured, the report has a **Run Now** icon in the Reports view so you can run the report any time.
- **Retained Results**—determines how many copies you will keep before the oldest report is overwritten. Setting this value to 12 when running a monthly report maintains one year’s worth of monthly reports.
- **Report Format**—reports are generated in PDF, Excel, or XML.
- **Email Recipients**—email addresses are separated by a comma; do not use semi-colons. To receive the reports in email, configure the email server parameters in the Administration dashboard (**Administration** > **Setup** & **Support** > **Email Configuration**).

13 Click **Finish**.

The newly created report now appears in the Chargeback Reports table on the Summary Page.

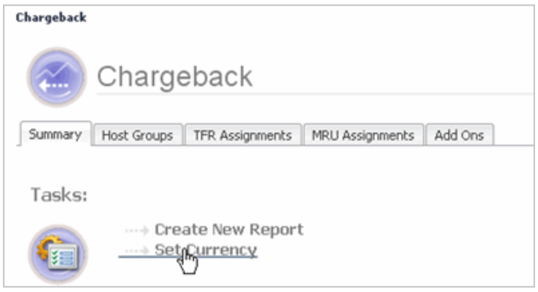
Set Currency

Set Currency allows you to set labels for the unit of currency you are working with (for example, $, USD, €, £, ¥, or required currency symbol). This value is not a currency value. It is a label assigned to the currency value being gathered.

IMPORTANT: Changing the currency symbol affects only the text of the currency entered. No exchange rates are applied.

To set currency:

1 Click **Set Currency**.



The Set Currency view appears.

2 Enter the required currency unit.

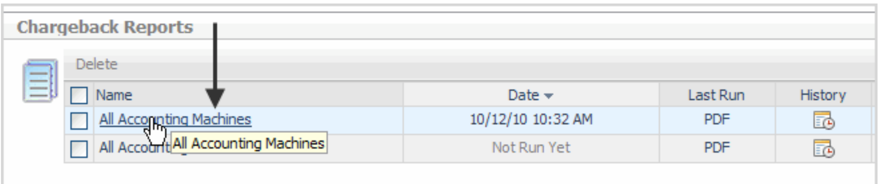
3 Click **Save**.

Editing Reports

From the Chargeback Summary view you edit reports.

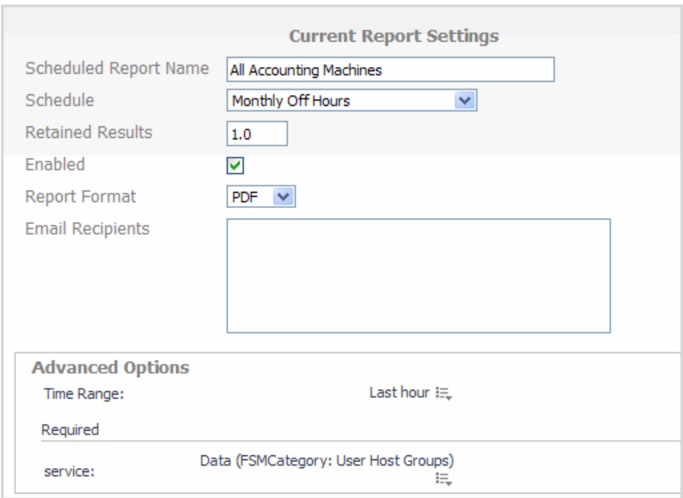
To edit a report:

1 Click the required report.



The Edit Schedule Reports dialog box appears.

2 Edit the scheduled report or email a report, as required.



Viewing, Running, and Deleting Reports

From the Chargeback Reports view you can download the report last run, display a history of reports, delete reports, and view reports.

To utilize reports from the Chargeback Reports view:

- You view, delete, or run Chargeback reports by:
  - Clicking in the Last Run column (PDF, Excel, XML) shows the last run report.
  - Clicking in the History column shows the Report History popup to view or delete a report. For more information, see Viewing Reports and Deleting Report History on page 20.
  - Clicking in the Run Now column shows the Run Now popup and runs the report.

Deleting Reports from the Chargeback View

From the Chargeback Reports view you delete reports.

To delete a report:

1. In the Chargeback Reports view, select required the report.
2. Click **Delete**.

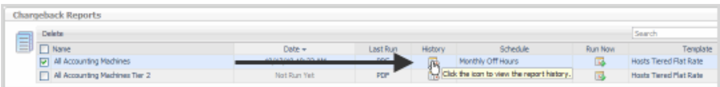
   IMPORTANT: Deleting a report from the Chargeback Reports view deletes the scheduled report. Report instances are not deleted.

Viewing Reports and Deleting Report History

From the Chargeback Reports view, you view the history of individual reports that have been run.

To view and delete report history:

1. In the Chargeback Reports view, click the History icon for the report history you want you review.

   The Report History view appears. All reports are listed.
2. To view a report, click any column in the view.
3. To delete report history, select the report and click **Delete**.

   The Delete Generated Reports dialog appears.
4. Click **Delete**.
5. Click **Close.**

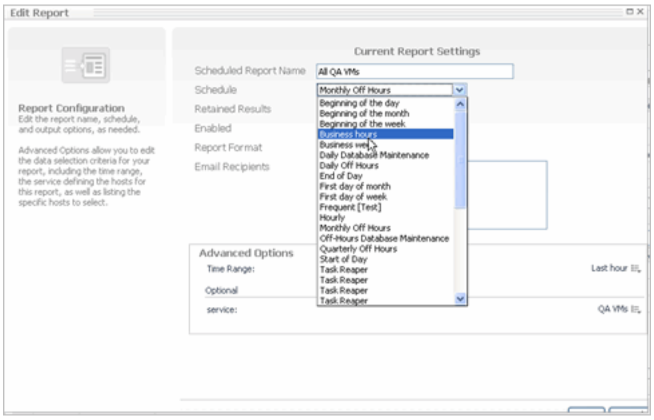
Scheduling Reports

Foglight Chargeback allows you to tailor the scheduling of reports to meet reporting requirements.

To change the schedule of a report:

1. In the Chargeback Reports view, click the required report.

   The Edit Report dialog appears.
2. From the Schedule drop-down, select the required report time frame.



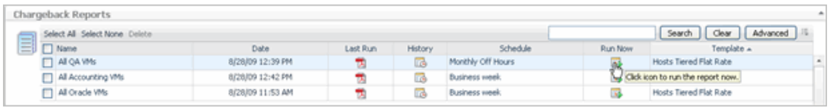
3 Click **OK**.

Manually Running a Report

Chargeback reports can be manually run from the Chargeback Reports view.

To manually run a report:

1 In the Run Now column, click the **Run Now** icon .



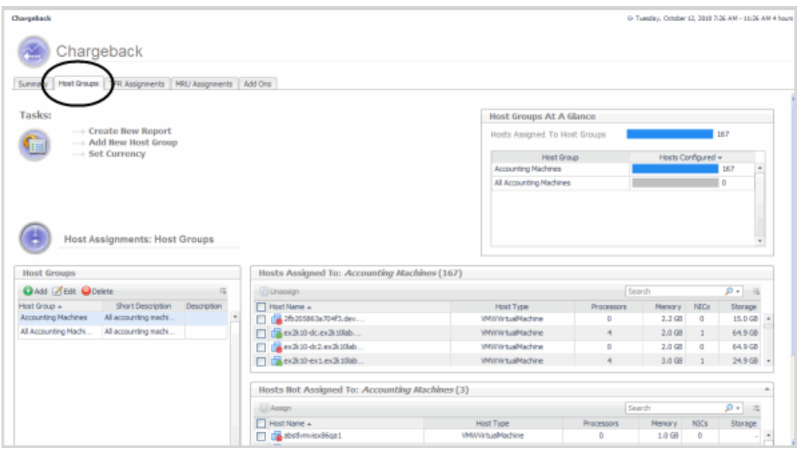
The Run Now popup appears.

2 When the report run completes, click **Download** to view the report.

Host Groups View

You use this view to assign multiple hosts in one group and generate a chargeback report based on those hosts. For example, you can group business units (for example, accounting, human resources, or engineering) VMs to create a report for that business unit.

Figure 6. Host Groups view

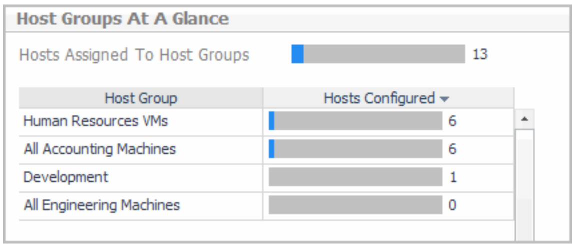


The Host Groups tab provides the following views:

- **Tasks**—from the Tasks view you can:
  - **Create New Reports**—provides a wizard that allows you to configure a report and select a host group (a group of computers) for a particular business unit. The reports are generated in PDF, Excel, and XML. (For more information, see Creating New Reports on page 14.)
  - **Add New Host Groups**—allows you to create host groups to tailor chargeback reports to business unit reporting needs. For more information, see Add New Host Groups on page 22.
  - Set Currency—allows the changing of the default currency for Chargeback. For more information, see Set Currency on page 18.

i | **IMPORTANT:** Changing the currency symbol affects only the text of the currency entered. It does not convert currency.

- **Host Groups At A Glance**—this view provides a quick visual summary of the hosts that have been assigned to host groups created for business units.



- **Host Groups**—lists all the created host groups. From this view you can:
  - Add New Host Groups on page 22
  - Edit Host Groups on page 23
  - Delete Host Groups on page 23
- **Hosts Assigned To**—this table shows all hosts that are assigned to the group that has been selected in the Host Groups list. Hosts can be searched for, selected, and removed from the assigned table. To remove a host from this table, select it from the list and click **Unassign** on the toolbar. This moves the selected host into the unassigned table, and disassociates it from the selected host group.
- **Hosts Not Assigned To**—this table shows all the hosts that are not assigned to the selected group. To add a host to a selected host group, choose the host you wish to add and click the **Assign** button from the toolbar. This moves the host into the Hosts Assigned To table, and associates the host with the host group that was selected. Each column in the table can be sorted based on individual preferences.

Using the Host Groups View

From the Host Groups view you perform the following tasks:

- Creating New Reports on page 14
- Add New Host Groups on page 22
- Set Currency on page 18
- Edit Host Groups on page 23
- Delete Host Groups on page 23

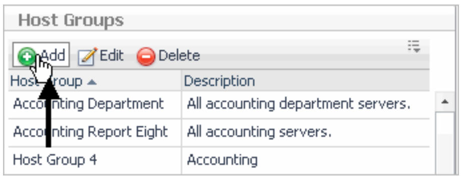
Add New Host Groups

You create host groups to place hosts in a grouping by using the Create New Host Group wizard.

To create a new Host Group:

1 Click **Add New Host Group**.

Click **Add** in the Host Groups view.



The Create New Host Group wizard appears.

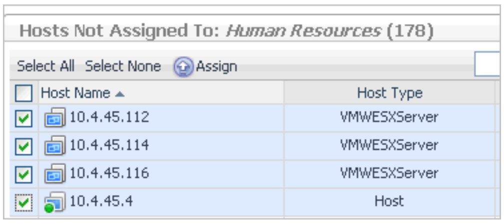
2 Enter a name for the host group, short description, and detailed description if required.

3 Click **Save**.

The host group creates and appears in Host Groups.

4 Add the required hosts by selecting the newly created host group in Host Groups.

5 In Hosts Not Assigned To table, select the required hosts.



6 Click **Assign**.

The hosts are moved into Hosts Assigned To table. You can now use this group to create a chargeback report.

Edit Host Groups

You can edit host groups to tailor names and descriptions.

To edit a host group:

1 In the Host Groups view, click the Host Group to edit.

2 Click **Edit**.

The Edit Host Group dialog appears.

3 Make the required edits.

4 Click **Save.**

Delete Host Groups

You can delete host groups no longer required for chargeback reporting.

To delete a host group:

1 Select the host group to delete.

2 Click **Delete**.

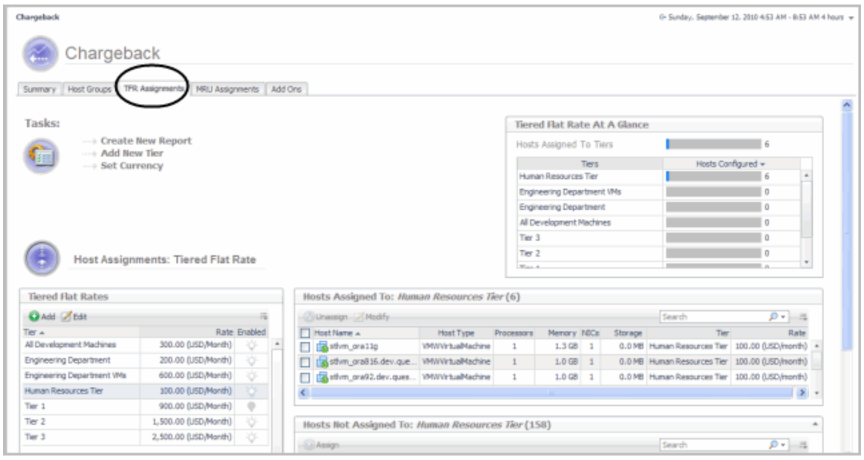
The Confirmation Dialog appears.

3 Click **Delete**.

Tiered Flat Rate (TFR Assignments) View

When using the Foglight™ Chargeback tiered flat rate model, a tier is a level of expense for a virtual or physical machine. For example, an organization has decided to build a new virtual infrastructure, mandating that any new server requested by the various business units of the company must first be created as a virtual machine. Only after verifying that a virtual machine cannot properly handle the application workload, would the physical server options be explored. You use the tiered flat model to determine monthly costs of an individual host or a group of hosts. The TFR Assignments view provides an overview of the tiered flat rate hosts and assignments and allows you to create TFR models.

Figure 7. Tiered Flat Rate View



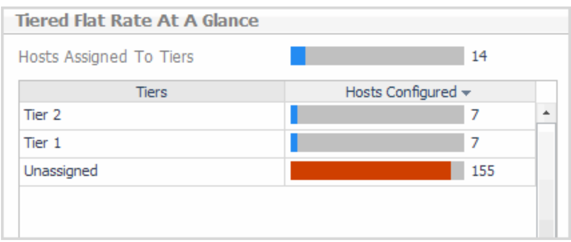
The TFR Assignments tab provides the following views:

- **Tasks**—from the Tasks view you can:
  - **Create New Report**—provides a wizard that allows you to configure a report and select a host group (a group of computers) for a particular business unit. The reports are generated in PDF, Excel, and XML. For more information, see Creating New Reports on page 14.
  - Add New Tiers—allows you to create new tiered flat rate templates, assign monthly rates, and descriptions. For more information, see Add New Tiers on page 25.
  - Set Currency—allows the changing of the default currency for Chargeback. For more information, see Set Currency on page 18.

  IMPORTANT: Changing the currency symbol affects only the text of the currency entered. It does not convert currency.

- **Tiered Flat Rate At A Glance**—this view provides a visual summary of the hosts that have been assigned to tiers.

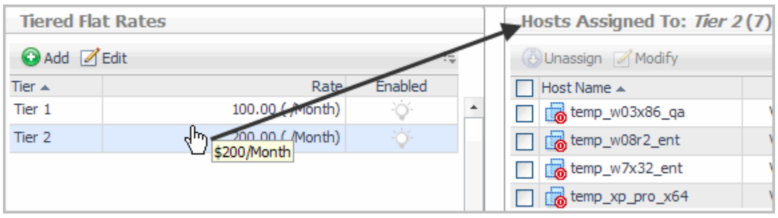
  Figure 8. Tiered Flat Rate at a Glance view

- **Tiered Flat Rates**—lists all the created tiers. From this view you can:
  - Add New Tiers on page 25
  - Edit Tiers on page 26

- **Hosts Assigned To**—this table shows all hosts that are assigned to the tier that have been selected in the tiers listing table. Hosts can be searched for, selected, and removed from the assigned table. To remove a host from this table, select it from the list and click **Unassign** on the toolbar. This moves the selected host into the unassigned table, and disassociates it from the selected tier. Each column in the table can be sorted based on individual preferences.

Figure 9. Hosts Assigned To table



- **Hosts Not Assigned To**—this table shows all the hosts that are not assigned to the selected tier. To add a host to a selected tier, choose the host you wish to add and click **Assign** on the toolbar. This moves the host into the Assigned To table view, and associates the host with the tier that was selected. Each column in the table can be sorted.

Using the TFR Assignments View

From the Tiered Flat Rate view you perform the following tasks:

- Creating New Reports on page 14
- Add New Tiers on page 25
- Assign Hosts on page 26
- Set Currency on page 18
- Edit Tiers on page 26

Add New Tiers

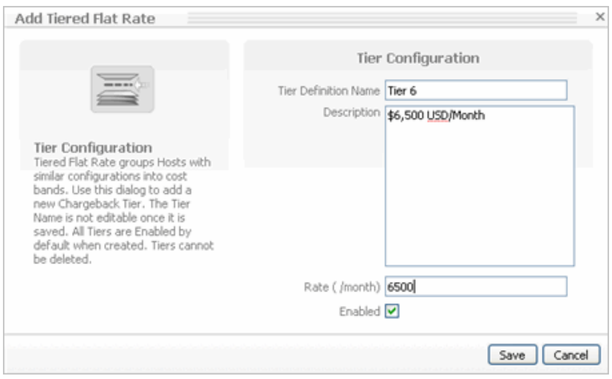
Tiered Flat Rates contain configurations of fixed cost (monthly rates) of hosts. You use this view to add a new chargeback tier. The tier name is not editable once it is saved. The reason tier names cannot be edited is to keep historical data. All tiers are active by default when created and cannot be deleted.

To add a new tier:

1 Click **Add New Tier in the Tasks view.**

The Add Tiered Flat Rate wizard appears.

2 Enter the tier name, description, and rate. You can enable or disable a tier. You disable a tier if you are not planning to use it any more because it is no longer valid.



3 Click **Save**.

The tier appears in the Host Assignments: Tiered Flat Rates table.

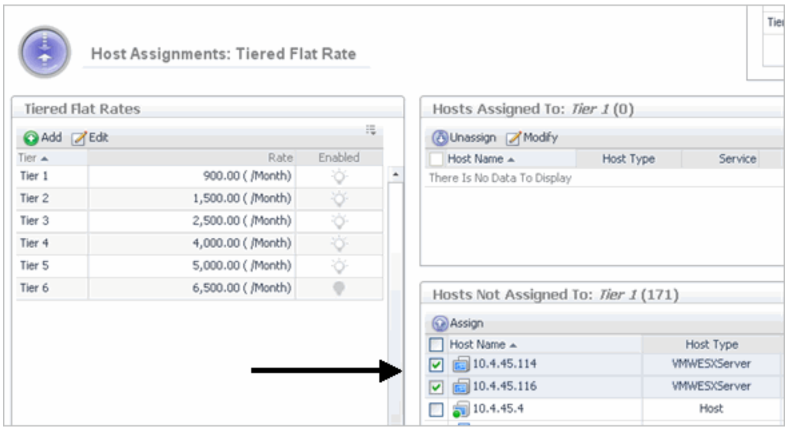
Assign Hosts

After creating a new tiered flat rate, hosts are assigned to the tier for Foglight Chargeback to start gathering data on the rates that have been established.

To assign hosts:

1 In the Tiered Flat Rates table view, click on the tier you want to assign the hosts to.

2 In the Host Not Assigned To table view, select the required hosts.



3 Click **Assign**.

The selected host are moved to the Host Assigned To table view.

Edit Tiers

NOTE: The Tiered Flat Rate name cannot be edited or deleted.

You edit tiers to:

- Change the description of the tier.
- Change the monthly rate.
- Enable or disable a tier. You disable a tier if you do not plan to use it any more because it is no longer valid.

To edit tiers:

1 In Tiered Flat Rates, select the tier you want to edit.

2 Click **Edit**.

The Edit Tier view appears.

3 Click inside **Description** and make the required edits.

4 Click inside of **Rate** and make the required edits.

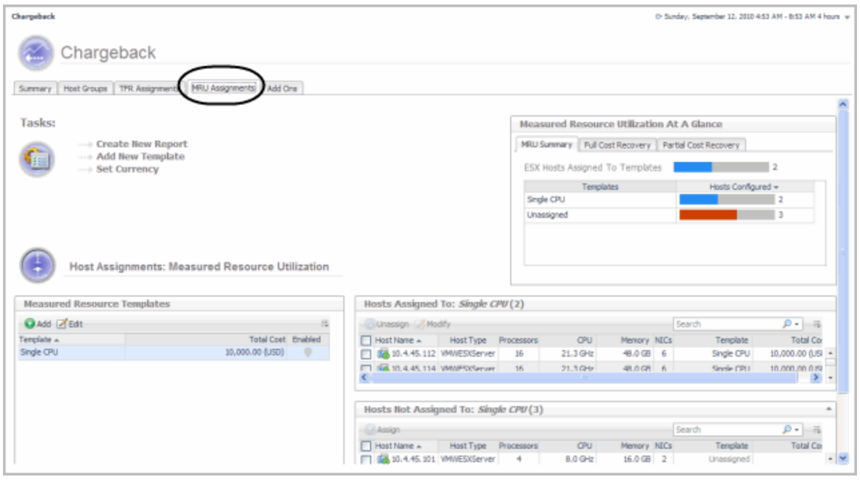
5 If not enabled, click the **Enabled** checkbox to enable the selected tier. Click again to disable the check box.

6 Click **Save**.

Measured Resource Utilization (MRU Assignments) View

The Measured Resource Template view provides an overview of the measured resource templates, host assignments to those templates, and allows you to add new templates.

Figure 10. Measured Resource Utilization view

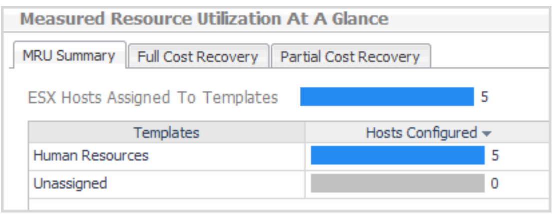


The MRU Assignments tab provides the following views:

- **Tasks**—from the Tasks view you can:
  - **Create New Report**—provides a wizard that allows you to configure a report and select a host group (a group of computers) for a particular business unit. The reports are generated in PDF, Excel, and XML. (For more information, see Creating New Reports on page 14.)
  - Add Measure Resource Utilization Templates—allows you to create new measured resource utilization templates. For more information, see Add Measure Resource Utilization Templates on page 28.
  - Set Currency—allows the changing of the default currency for Chargeback. For more information, see Set Currency on page 18.

  IMPORTANT: Changing the currency symbol affects only the text of the currency entered. It does not convert currency.

- **Measured Resource Utilization At A Glance**—this view provides a quick visual summary of the hosts that have been assigned to the measured resource utilization model, as well as a visual breakdown of the host assignments within that model. This view contains a summary tab and tabs for both partial cost recovery and full cost recovery. All templates and their assigned hosts are listed under the tabs.



- **Host Assignments: Measured Resource Utilization**—the three tables in this area allow for bulk assignment and unassignment of hosts to a given MRU template. The two tables to the right of this table display the hosts that have been assigned or are not yet assigned to the selected template.

- **Measured Resource Templates**—this table shows all the measured resource utilization templates currently stored in the system. Selecting a template from this table enables the display of the assigned hosts for this template. From this view you can:
  - Add Measure Resource Utilization Templates on page 28
  - Edit Templates on page 29
- **Hosts Assigned To**—this table shows all hosts that are assigned to the template that has been selected in the templates listing table. Hosts can be searched for, selected, and removed from the assigned table. To remove a host from this table, select it from the list and click **Unassign** on the toolbar. This moves the selected host into the unassigned table, and disassociates it from the selected measured resource utilization template. Each column in the table can be sorted based on individual preferences.
- **Hosts Not Assigned To**—this table shows all the hosts that are not assigned to the selected MRU template. To add a host to a selected template, choose the host you wish to add and click **Assign** on the toolbar. This moves the host into the Assigned To table view, and associates the host with the template that was selected. Each column in the table can be sorted based on individual preferences.

Using the MRU Assignments View

From this view you can perform the following:

- Creating New Reports on page 14
- Add Measure Resource Utilization Templates on page 28
- Assign Hosts on page 26
- Set Currency on page 18
- Edit Templates on page 29

Add Measure Resource Utilization Templates

Measured Resource Utilization is based on actual percentage utilizations of:

- CPU weight
- Memory weight
- Network weight
- Disk IO weight

Foglight™ Chargeback allows you to create templates based on server capacity and utilization. The template name is not editable once it is saved. The lifecycle default value is 36 months. All templates are active by default when created. A total weight of 100 is always used, regardless of the sum of the CPU, memory, network and Disk IO weights entered. Templates cannot be deleted.

You can create templates based on these utilizations. The template name is not editable once it is saved. The lifecycle default value is 36 months. All templates are active by default when created. A total weight of 100 is always used, regardless of the sum of the CPU, memory, network and Disk IO weights entered. Templates cannot be deleted.

To add a new template:

1. Click **Add New Template**.

   The Add Measured Resource Template appears.
2. Enter and host template name and fill in the required parameters.
   - **Host Template Name**—name assigned to the template. This name is not editable once assigned.
   - **Description**—description of the template. For example, single CPU, 64 GB memory, 40 GB disk.
   - **Total Host Cost**—the total host cost for the life cycle set.
   - **Lifecycle (Months)**—the number of months the server will be used.

- **Enabled**—enables the template to gather data.
- **CPU Weight**—percentage of CPU weight used in the chargeback calculation.
- **Memory Weight**—percentage of memory weight used in the chargeback calculation.
- **Network Weight**—percentage of network weight used in the chargeback calculation.
- **Disk IO Weight**—percentage of disk IO weight used in the chargeback calculation.

3 Click Save.

Assigning Hosts

After creating a new measured resource template, hosts are assigned to the template for Foglight Chargeback to start gathering data for reports.

To assign hosts:

1 In the Measured Resource Templates table view, click on the template you want to assign the hosts to.

2 In Hosts Not Assigned To table view, select the host(s) you want to assign.

3 Click **Assign**.

The selected hosts are moved to Host Assigned To.

Edit Templates

NOTE: Measured Resource templates cannot be deleted and their names cannot be changed. These templates have historical data associated with them.

You edit tiers to:

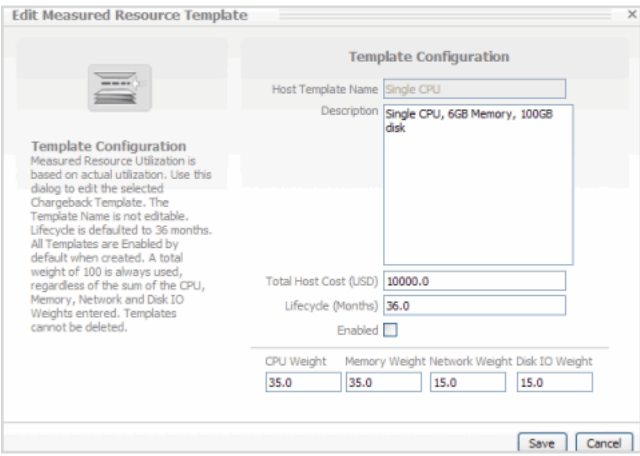
- Edit the description of the template.
- Edit the total host cost.
- Edit the lifecycle of the template.
- Enable or disable a template. You disable a template if you do not plan to use it any more because it is no longer valid.

To edit a template:

1 In Measured Resource Templates view, select the template you want to edit.

2 Click **Edit**.

The Edit Measured Resource Template view appears.



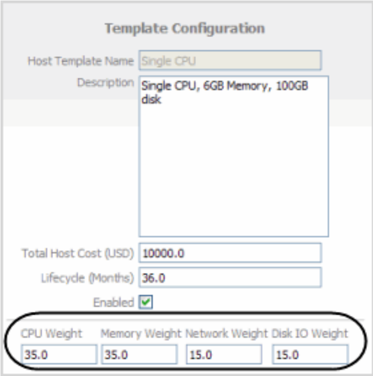
3 Click **Description** box and make the required edits.

4 In the **Total Host Cost (Currency Type)** box**,** type the required edits.

5 In the **Lifecycle (Time Period)** box, and make the required edits.

6 If not enabled, click the **Enabled** checkbox to enable the selected template. Click again to disable the check box. You disable a template if you do not plan to use it any more because it is no longer valid.

7 Click the resource weights box(s) and edit if required.



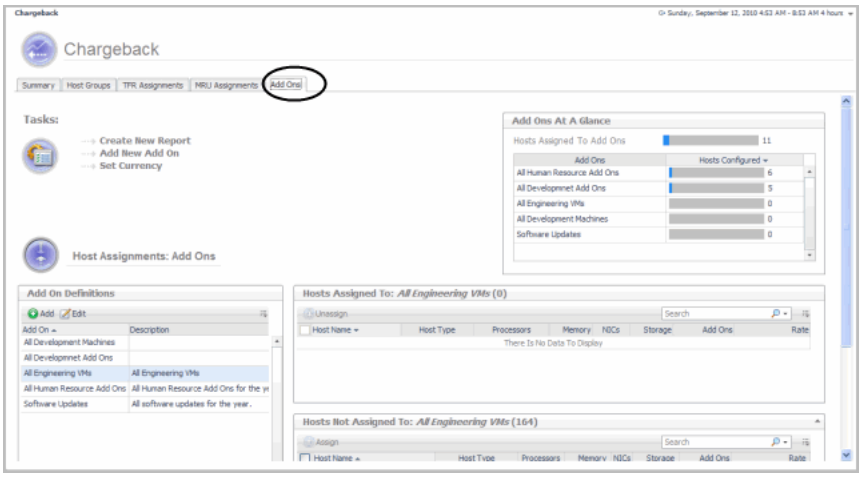
8 Click **Save.**

Add Ons View

Add Ons provide the ability to create modular cost upgrades for a given host. These upgrades could include, but are not limited to hardware software, licensing, or even infrastructure items such as rack space or power backup units. Add Ons are typically modular, stand-alone upgrades that are added to a given host configuration that can increase the host configuration's value and/or performance within a given environment. Typical examples of Add Ons include:

- Additional CPU or RAM
- Additional Network interfaces or upgraded types of network interface cards
- Additional Storage (internal or SAN-based)
- Software installs such as Oracle or MS SQL
- Specific rack space
- Power backups

Figure 11. Add Ons view



The Add Ons tab provides the following views:

- **Tasks**—from the Tasks view you can:
  - **Create New Report**—provides a wizard that allows you to configure a report and select a host group (a group of computers) for a particular business unit. The reports are generated in PDF, Excel, and XML. For more information, see Creating New Reports on page 14.
  - Add Add Ons—allows you to create new add on assignments. For more information, see Add Add Ons on page 31.
  - Set Currency—allows the changing of the default currency for Chargeback. For more information, see Set Currency on page 18.

  IMPORTANT: Changing the currency symbol affects only the text of the currency entered. It does not convert currency.

- **Add Ons At A Glance**—this view provides a quick visual summary of the hosts that have been assigned to Add Ons as well as a visual breakdown of the host assignments within that model.
- **Host Assignments: Ad Ons**—the three tables in this area allow for bulk assignment and unassignment of hosts to a given Add On. The Add On Definition table lists all available Add Ons and their details. The two tables to the right of this table display the hosts that have been assigned or are not yet assigned to the selected Add On.
- **Add Ons Definitions**—this table lists all the Add Ons currently stored in the system. Selecting an Add On from this table enables the display of the assigned hosts for this Add On in the Hosts Assigned To table. From this view you can:
  - Add Add Ons on page 31
  - Edit Add Ons on page 32
- **Hosts Assigned To**—this table lists all hosts that are assigned to the Add On selected in the Add On Definitions list. Hosts can be searched for, selected, and removed from the assigned table. To remove a host from this table, select it from the list and click the **Unassign** button on the toolbar. This moves the selected host into the Unassigned table, and disassociates it from the selected Add On. Each column in the table can be sorted based on individual preferences.
- **Hosts Not Assigned To**—this table lists all the hosts that are not assigned to the selected add on. To add a host to a selected add on, choose the host you want to add and click the Assign button on the toolbar. This moves the host into the Assigned To Table, and associates the host with the Add On that was selected. Each column in the table can be sorted based on individual preferences.

Using the Add Ons View

From this view you perform the following tasks:

- Creating New Reports on page 14
- Add Add Ons on page 31
- Assigning Hosts on page 32
- Set Currency on page 18
- Edit Add Ons on page 32

Add Add Ons

The Add Ons view allows you to add a supplementary IT cost, for example a software upgrade.

To add new Add Ons:

1. Click **Add New Add On**.

   The Add New Add Ons dialog appears.

2 Enter the Add On name, a description, and rate.

3 Click **Save.**

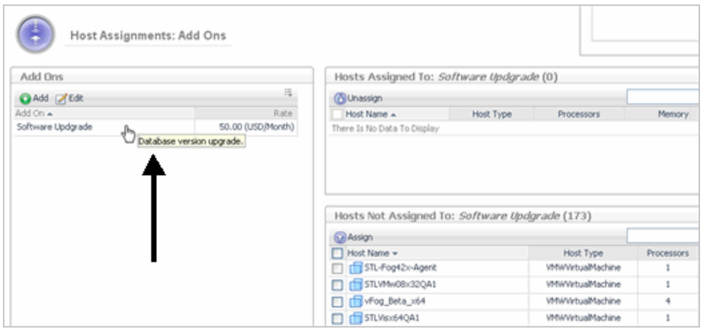
The new Add On appears in the Add Ons view.

Assigning Hosts

After creating an add on, hosts are assigned to the add on to start gathering data on the established add on rates.

To assign hosts:

1 In the Add On Definitions list, click a definition you wish to assign the hosts to and then click **Add**.



2 In the Host Not Assigned To list, select the required hosts.

3 Click **Assign**.

The selected host are listed in the Host Assigned To view.

Edit Add Ons

You edit add ons to:

- Edit the description of the add on.
- Edit the rate assigned to the add on.

To edit Add Ons:

1 In Add On Definitions, select the required **Add On**.

2 Click **Edit**.

The Edit Add On view displays.

> **IMPORTANT:** The Add On Name cannot be edited.

3 Make the required edits.

4 Click **Save.**

Example Use Case for Chargeback

You are an IT professional in charge of a network with over three hundred virtual machines (VMs). You need to track the cost of these machines and provide reports on what each department within your company is costing, broken down by business unit. You decide to begin by generating a chargeback report of the Human Resources Department, using Foglight™ Chargeback. You know the following:

- What machines the Human Resources Department use.

- You will use the Tiered Flat Rate (TFR) model and charge a flat rate of $100.00 per month. For more information, see Tiered Flat Rate Model on page 5.
- You will use the Add Ons model and charge a rate of $50.00 per month. For more information, see Add Ons Model on page 9.

Creating the Human Resources Department Tiered Flat Rate (TFR) Assignments

A tier is a level of expense for a VM or physical host machine. It is a flat rate the Human Resources Department is charged by the IT Department for the use of VMs. You assign a tier definition name of Human Resources Tier and assign a monthly rate of $100.00.

To create the Human Resources TFR configuration:

1 Click the **TFR Assignments** tab.

2 Click **Set Currency**.

The Set Currency view appears.

3 In Currency Units, enter **$**. This is the currency unit used in the chargeback calculations.

4 Click **Save**.

5 Click **Add New Tier**.

The Add Tiered Flat Rate dialog appears.

6 Enter **Human Resources Tier** in Tier Definition Name.

7 In the **Description** box, enter a brief explanation of the tier, for example,

"**All human resources VMs being charged a flat rate of $100/month.**"

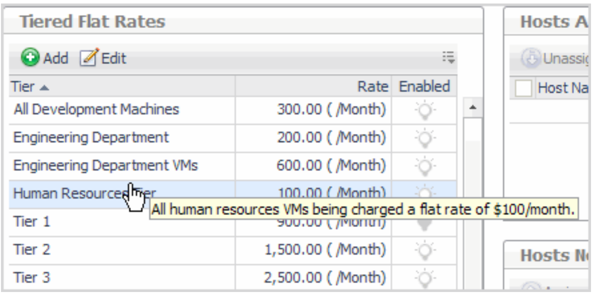
8 In Rate (/month) enter **100.00**.

9 If not enabled, click **Enabled**.

10 Click **Save**.

Next, assign the Human Resource VMs to the Human Resources Tier just created.

11 Click the **Human Resources Tier** in Tiered Flat Rates.



12 From the Hosts Not Assigned To table, select the **Human Resources VMs**.

13 Click **Assign**.

The selected VMs move to the Host Assigned to table.

You have created the tiered flat rate model for the Human Resources Department, next you create the Human Resources add ons definitions.

Creating the Humans Resources Add Ons

Add Ons are used to include costs that cannot be configured in the tiered flat rate model. These costs can include hardware upgrades, software, licensing, or infrastructure items such as rack space or power backup units.

To create the Human Resources Add Ons definition:

1 Click the **Add Ons** tab.

2 Click **Add New On**.

3 In Add On Name, enter **All Human Resource Add Ons.**

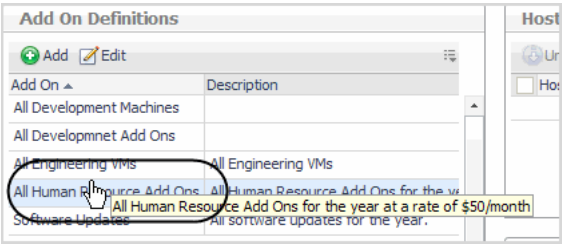
4 In Description, enter "**All Human Resource Add Ons for the year at a rate of $50/month**."

5 In Rate (/month) enter **50**.

6 Click **Save**.

Next you assign the Human Resource VMs to the Add On configuration just created.

7 In Add On Definitions, click the **All Human Resources Add Ons** definition.



8 From the Hosts Not Assigned To table, select the Human Resources VMs.

9 Click **Assign**.

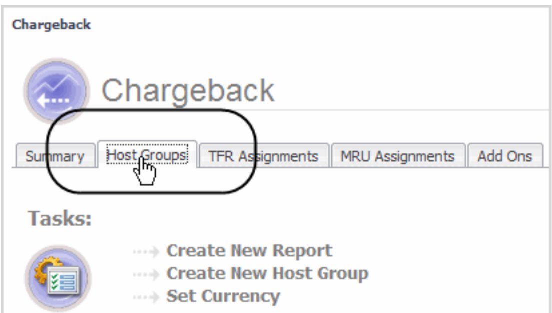
The selected VMs are moved to the Host Assigned to table.

Creating the Human Resources Host Group

After creating the Tiered Flat Rate assignments and Add Ons definitions for the Human Resources Department, you create a host group to place and assign the Human Resources VMs.

To create the Human Resources host group:

1 Click the **Host Groups** tab.



2 Click **Create New Host Group**.

3 Enter **Human Resources VMs** in Name and the the required descriptions.

4 Click **Save.**

The Human Resources host group appears in Host Groups.

5 Click the **Human Resources** group previously created.

6 From the Hosts Not Assigned To table, select the **Human Resources VMs**.

7 Click **Assign**.

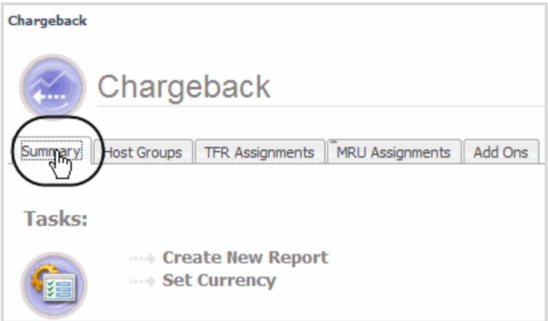
The selected VMs are moved to the Host Assigned view.

Creating the Human Resources Department Chargeback Report

After creating the Human Resources host group, you create the chargeback report.

To create the Human Resources Department chargeback report:

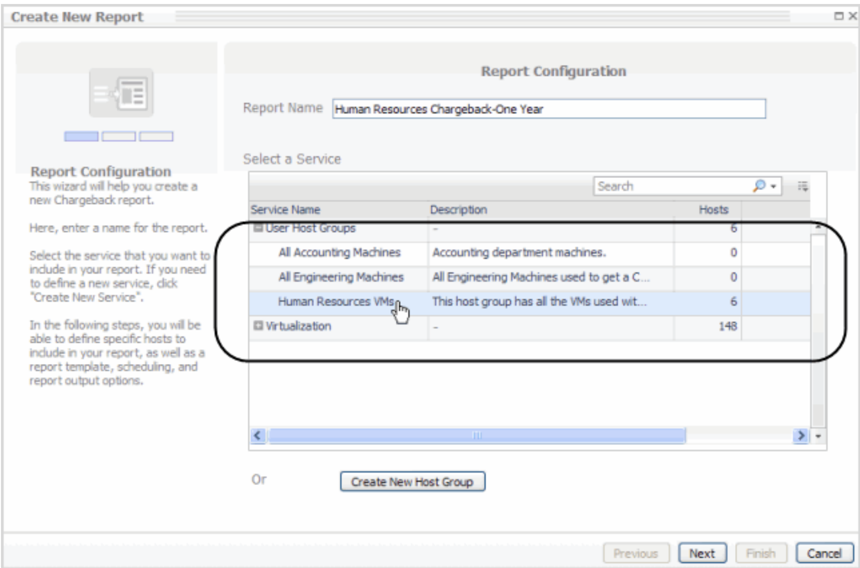
1 Click the **Summary** tab.



2 Click **Create New Report**.

3 In Report Name, enter **Human Resources Chargeback-One Year**.

4 Expand **User Host Groups** and select **Human Resources VMs.**



5 Click **Next**.

The Human Resources Host group appears with all of the Tiered Flat Rate and Add-Ons already active.

> **IMPORTANT:** It is important to note, that when you created the Tiered Flat Rate and Add Ons models, the Human Resources VMs were added for those models. You do not have to add those VMs to the models when creating the Human Resources Department Chargeback report.

6 Click **Next**.

The Advanced Configuration dialog appears.

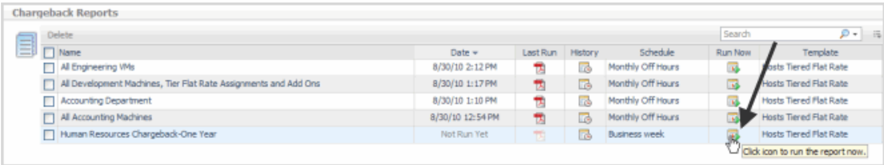
7 Fill in the following fields:

- **Report Name**—Human Resource Chargeback- One Year
- **Report Title**—IT Human Resources Report for One Year (This field is not used in the Chargeback Report).
- **Report Template**—Host Tiered Flat Rate
- **Enabled**—Check this box.
- **Time Range**—Last Year
- **Schedule**—Business week
- **Retained Results**—1
- **Report Format**—PDF
- **Email Recipients**—Optional

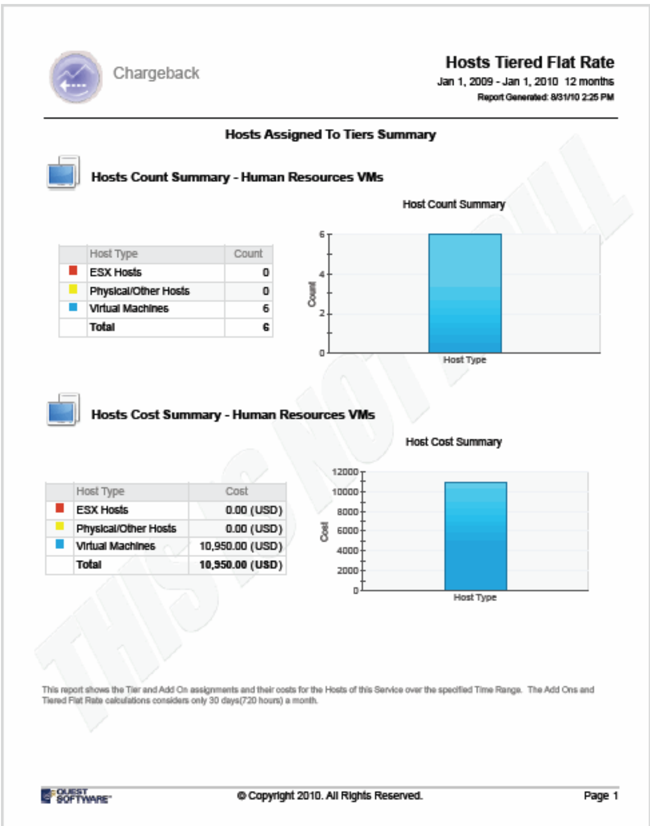
8 Click **Finish**.

The report is created and appears in the Chargeback Reports view.

9 Click **Run Now** to run the report.



10 The Run Now dialog appears as the report runs. To view the report, click **Download**. Select the required report viewing options and click **OK**. The Human Resources Chargeback-One Year report opens.



You have created a chargeback report for the Human Resources Department VMs that provides a detailed cost breakdown of the what the selected VMs cost for a period of one year. You can scroll through the report to view cost details on the VMs used by the Human Resources Department.

About Us

We are more than just a name

We are on a quest to make your information technology work harder for you. That is why we build community-driven software solutions that help you spend less time on IT administration and more time on business innovation. We help you modernize your data center, get you to the cloud quicker and provide the expertise, security and accessibility you need to grow your data-driven business. Combined with Quest's invitation to the global community to be a part of its innovation, and our firm commitment to ensuring customer satisfaction, we continue to deliver solutions that have a real impact on our customers today and leave a legacy we are proud of. We are challenging the status quo by transforming into a new software company. And as your partner, we work tirelessly to make sure your information technology is designed for you and by you. This is our mission, and we are in this together. Welcome to a new Quest. You are invited to Join the Innovation™.

Our brand, our vision. Together.

Our logo reflects our story: innovation, community and support. An important part of this story begins with the letter Q. It is a perfect circle, representing our commitment to technological precision and strength. The space in the Q itself symbolizes our need to add the missing piece—you—to the community, to the new Quest.

Contacting Quest

For sales or other inquiries, visit https://www.quest.com/company/contact-us.aspx or call +1-949-754-8000.

Technical support resources

Technical support is available to Quest customers with a valid maintenance contract and customers who have trial versions. You can access the Quest Support Portal at https://support.quest.com.

The Support Portal provides self-help tools you can use to solve problems quickly and independently, 24 hours a day, 365 days a year. The Support Portal enables you to:

- Submit and manage a Service Request.
- View Knowledge Base articles.
- Sign up for product notifications.
- Download software and technical documentation.
- View how-to-videos.
- Engage in community discussions.
- Chat with support engineers online.
- View services to assist you with your product.