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1 Reporting and Chargeback Application

Generate virtual environment configuration and chargeback reports using the vOperations Suite Reporting and Chargeback application.

The functionality of the Reporting and Chargeback application is broken into two major areas: Inventory and Chargeback.
2 Inventory

Create custom reports of virtual machine configuration, utilization and status or a complete inventory of all virtual machines.

2.1 List View

The List View of Inventory is used to create custom reports by selecting the items to be included and filtering the information for desired content.

Click the **Custom View** button to select the items to be included in the view.
Check the table check boxes for the desired items. Check the Tool-Tip check boxes for the items you would like to see in the tooltips.

To filter for specific values of each item, select the item in the Table Filters drop down box.

Once the filter item is selected, select the filter criteria from the second drop down box in the Table Filters.
Now enter the value for the specific item and criteria in the edit box. The filter will automatically be applied and only items that match the specific criteria will be included in the table.

Multiple filters may be used to pinpoint specific conditions. Simply click on the Add Filter button and add the filter item, criteria and value.
2.2 Detailed View

The Detailed View of Inventory contains detailed information about each virtual machine. The information can be used for reference or to archive virtual environment information at regular intervals.
3 Chargeback

Create detailed cost analysis reports for individual groups, organizations or customers. Reports include both allocation costs based on the virtual machine configuration and utilization costs based on the actual utilization of the resources.

Prices must be defined for the hardware resources (CPU, memory, network and storage) that will be used by the customers. For help in calculating the appropriate prices for your environment download the Chargeback Methodology whitepaper and the Chargeback Calculator from the VKernel website:

Go to Settings > General > Prices.
The prices can be set individually for each host or the hosts can be **Dragged and Dropped** into one of four tiers and the pricing set for the tier. Once the hosts are organized appropriately, enter the prices per daily unit.

The Datastores can be organized and the prices set in the same way as the host prices were set.

Now we create the customers. To add a customer, right click on **Customers** in the navigation tree and select **Add Customer**.
Enter the customer name and click **Add**.

Business Views (see Section 4.3 Business Views) are used to organize the resources that belong to a customer. Create one or more business views with the appropriate virtual objects (folders, clusters, hosts, resource pools or virtual machines). The business view or business views can then be **Dragged and Dropped** into the specific customer folder.
Fixed per day costs (power, cooling, licensing) can be added to the business view. Right click on the business view and select **Set Fixed Costs**. Click **Add**.

Then select the customer and the chargeback report will be generated.

The report period can be changed according to your preference.
4 vOperations Suite Common Features

Features of the vOperations Suite that are common to all applications include: the Dashboard, the Navigation Tree, Business Views, Settings, Update, Help and Reporting.

4.1 Dashboard

The dashboard provides an overall summary of the status of the virtual environment. The Dashboard tab provides two different views: Alarms and Bottlenecks and Capacity Efficiency and Availability.

4.1.1 Alarms and Bottlenecks

This view highlights the performance related status of the virtual environment.

4.1.2 Capacity Efficiency and Availability

This view highlights the efficiency of resource utilization and the availability of resources for additional growth.
4.2 Navigation Tree

The Navigation Tree is common to the Dashboard and all applications.

**Business Views** allow the organization of the infrastructure based on organizational use or application deployment.

**Host and Clusters** is kept synchronized with the vCenters connected to the vOperations Suite. It contains the same objects and structures as seen in vCenter.

**VMs and Templates** is kept synchronized with the vCenters connected to the vOperations Suite. It also contains the same objects and structures as seen in vCenter.

**Datastores** contains all of the datastores used in the virtual environment.

4.3 Business Views

Business Views allow the organization of the infrastructure based on organization use or application deployment. Business views are hierarchical and can contain other business views, vCenter folders or individual objects.

To add a business view, right click on **Business Views** or a previously created business view in the navigation tree and select **Add Business View**.
Enter the name and description of the business view. Select the inventory objects to be included in the business view and move them to the table on the right. Click Add to create the business view containing the selected objects.

Objects in the navigation tree can also be selected and then dragged and dropped into an existing business view.

### 4.4 Reports

All of the views within each application can be saved as an XML, saved as a PDF, emailed or scheduled to be emailed on a regular basis.

#### 4.4.1 Saving Reports

Clicking the XML or PDF buttons will immediately save the current view.
4.4.2 Emailing Reports
Clicking the E-mail button will allow you to specify the type of report and one or more email address(s) to immediately send the report to.

4.4.3 Scheduling Reports
Clicking the Schedule button will allow you to specify how often the report will be sent, the type of the report and one or more email address(s) to send the report to.
4.5 Settings

The vOperations Suite Settings apply to all of the applications.

4.5.1 Settings > General > Environment

Configure the connections to the VMware vCenter(s) or ESX host(s).
4.5.2 Settings > General > DB Settings
Select and parameterize the vOperations Suite database

4.5.3 Settings > General > Savings
Set the costs used in estimating potential savings through reconfiguration or elimination of waste.
4.5.4 **Settings > General > Prices**
Set the hardware prices used to determine resource allocation and utilization costs.

4.5.5 **Settings > General > Scheduled Tasks**
Review, edit or delete the scheduled reports.

4.5.6 **Settings > General > Automated Tasks**
Review, edit or delete the scheduled virtual object configuration changes.
4.5.7 Settings > General > Proxy
Set the proxy connection to the Internet.

4.5.8 Settings > General > Miscellaneous
Add the company logo or adjust other generalized settings.
4.5.9 Settings > Notifications > Alerts
Review, edit or delete the Trend, Capacity and Predictive Alerts.
4.5.10 Settings > Notifications > System
Set general system notifications.

![System Notifications Configuration](image1)

4.5.11 Settings > Notifications > Address Book
Review, add, edit or delete Address Book entries used for notifications and alarms.

![Address Book Entries Configuration](image2)

4.5.12 Settings > Notifications > E-mail
Set the credentials used to send emails.

![E-mail Credentials Configuration](image3)
4.5.13 Settings > Thresholds > Cluster

Review or edit the thresholds used to analyze cluster performance.
4.5.14 Settings > Thresholds > Host

Review or edit the thresholds used to analyze host performance.
4.5.15 Settings > Thresholds > Resource Pool

Review or edit the thresholds used to analyze resource pool performance.
4.5.16 Settings > Thresholds > Virtual Machine

Review or edit the thresholds used to analyze virtual machine performance.
4.5.17 Settings > Thresholds > Storage

Review or edit the thresholds used to analyze storage performance.
4.5.18 Settings > Users

Enable or disable active directory.
Add, edit or delete administrators. Add, edit, delete or configure users and their privileges.
4.5.19 Settings > License > { Application }

Request a trial or a purchased license, review the current license or assign socket licenses to the hosts.