

# Using VMware Cost Insight

VMware Cost Insight services



vmware®

You can find the most up-to-date technical documentation on the VMware website at:

<https://docs.vmware.com/>

If you have comments about this documentation, submit your feedback to

[docfeedback@vmware.com](mailto:docfeedback@vmware.com)

**VMware, Inc.**  
3401 Hillview Ave.  
Palo Alto, CA 94304  
[www.vmware.com](http://www.vmware.com)

Copyright © 2017 VMware, Inc. All rights reserved. [Copyright and trademark information.](#)

# Contents

- 1 Using VMware Cost Insight 4**
  - [Viewing Your Infrastructure Expense Across Clouds 4](#)
  - [Performing the Cost Analysis of your Private and Public Cloud Data 6](#)
  - [Cost Savings Overview 7](#)
  - [Viewing the Cost Drivers for Your Private Cloud Costs 7](#)
  - [Configuring Cost Settings 8](#)

# Using VMware Cost Insight

The Cost Insight service gives you visibility into the cost of your private and public cloud infrastructure. You can track, manage, and plan your expenses across both types of cloud accounts.

This section includes the following topics:

- [Viewing Your Infrastructure Expense Across Clouds](#)
- [Performing the Cost Analysis of your Private and Public Cloud Data](#)
- [Cost Savings Overview](#)
- [Viewing the Cost Drivers for Your Private Cloud Costs](#)
- [Configuring Cost Settings](#)

## Viewing Your Infrastructure Expense Across Clouds

With the Cost Insight Dashboard, you can view an up-to-date expense summary as well as the projected expenses of your AWS, Azure, and private cloud accounts. You can also get details about your inventory distribution and expense distribution across clouds.

- **Expense Overview:** Displays private and public cloud expense until today and the projected expense for the current month.
- **Inventory Distribution Across Clouds:** Displays the number of configured accounts and the number of virtual machines running on each cloud platform.
- **Most Expensive Groups:** Displays the sum of virtual machine expenses in the group.

---

**Note** The expense of private cloud virtual machines is calculated based on their utilization. The expense of public cloud virtual machines is based on their Month-to-Date (MTD) expense.

---

You can also create groups and organize your resources in your cloud infrastructure.

- **Expenses Distribution Across Clouds:** Displays the expense percentage of private and public cloud for the current month. When you hover over the graph, you can see the total expense and virtual machine count on each cloud platform.

---

**Note** VMware Cloud services begin to calculate your private cloud costs when you deploy a data collector. And, VMware Cloud services calculates your public cloud costs based on the historical data available in your public cloud bills.

---

## Getting a Detailed Analysis of Your Costs

Using the specific tabs on the Cost Insight Dashboard page, you can view your AWS, Azure, and private cloud account expenses. VMware Cloud services can display the expenses based on several predefined dimensions or categories such as accounts, regions, services, instance types, and clusters. You can also view the daily expense trend and compare expenses for the current month and the previous month.

### Viewing Your AWS Expenses

Once you have set up one or more AWS cloud accounts, you can view your AWS expense details on the AWS Dashboard. Also, you can drill down through the Cost Insight Dashboard to see your AWS expense information. VMware Cloud services can collect your expense data from your AWS bills to display in the Cost Insight service.

You can get a list of all your accounts with their services, regions, and instance types. You can see the linked account name, virtual machine count, and total expense of each AWS account as well as its percentage increase or decrease in expense. You can also pinpoint for the current month:

- The top five most expensive AWS accounts
- The top five most expensive AWS services
- The top five most expensive regions that are consuming EC2 services
- The most expensive EC2 instance types

---

**Note** AWS generates the bill by the end of first day of the month. If you try to view your expenses on the first day of the month, your expense may not be up-to-date. You can view your complete expenses starting from the second day of the month onwards.

---

### Viewing Your Azure Expenses

After you add an Azure cloud account, you can view your Azure expense details on the Azure Dashboard. Also, you can drill down through the Cost Insight Dashboard to see your Azure expenses.

VMware Cloud services pull the data from your Azure bills for display in the Cost Insight service.

You can see the Azure expense summary, which includes the current total expense and the projected expense of the month. The summary also includes the virtual machine count, the number of configured accounts and the count of accounts that are unable to fetch data.

You can also see a graphical representation of the top five most expensive accounts and its expense comparison with the previous month values. You can hover the mouse on the graph to see the actual expense values.

In addition, you see the top five most expensive Azure services, its actual cost for the current month and its percentage of contribution for the total expense.

You can see the expensive virtual machines based on regions and VM types.

In addition, you can also drill down to see the complete list of accounts, services, or VMs and its expense details.

## Viewing Your Private Cloud Expenses

To collect data from your vCenter Server, you must install data collectors for them. Once you have set up a data collector on your vCenter Server, VMware Cloud services pulls data from the server, and you can view its data on the Private Cloud page or by drilling down through the Cost Insight Dashboard.

The initial data collection takes around 40 minutes to collect and upload into VMware Cloud. Once the data collection process is complete, you get a detailed list of all your private cloud accounts and vCenter Server clusters with their expenses.

You can also see this updated information:

- Daily expense trend
- Projected expenses for the current month

Projected Expense = [(Current expense of the month / past number of days of the month) \* total number of days of the month]

For example, if you are on the eight day of the month, and the total current expense is \$80, then

Projected Expense = [(80/8)\* 31] = \$310

- View previous month expenses
- The top five most expensive public cloud accounts
- The top five most expensive clusters

## Performing the Cost Analysis of your Private and Public Cloud Data

Once you add a private or public cloud account into VMware Cloud services, you can perform the filter the details based on different criteria.

By default, you see the AWS data of all accounts, which includes the summary such as, current expense and the projected expense for the month, total number of accounts. You can compare the expense and total number of instances of the top five accounts, and see the daily expense trend of all accounts and each individual account.

You can drill-down to see the summary and expense data of each specific account or specific instance.

By default, you see the expense of the current month. You can filter these data for the previous month and the last three months.

---

**Note** As of now, last three months and six months data is available for public cloud accounts only.

---

You can see data based on common or saved questions, which are predefined criteria such as:

- Expense details for all vCenters
- Expense details for all clusters
- AWS expenses
- AWS EC2 expenses
- Expense details for all Azure accounts
- Expense details of all Azure instances

You can export the report to the CSV format and also save the report for future use.

You can also schedule a report to share your latest or up-to-date data at regular intervals (daily or monthly) to the specific recipients.

## Cost Savings Overview

Based on your resource availability and your cost configurations, Cost Insight provides the potential cost saving opportunities of your private and public cloud accounts.

Cost Insight indicates the amount of provisioned capacity that you can reclaim and provision to other objects in your environment without causing stress or performance degradation.

You can see the virtual machines or the instances that are categorized based on the current state (Recommendation types). You can click on each state or type to see the details of the instances or virtual machine details, month to date expense, recommendations to delete or power-off that saves your expense, and also provides the potential saving you can achieve by performing the recommended action. You can also export the report to a CSV file.

## Viewing the Cost Drivers for Your Private Cloud Costs

Cost Drivers are the expense types based on which the VMware Cloud services calculate your private cloud costs. Your total private cloud cost is the sum of all the cost drivers for that cloud. You can see the cost of each expense type on the Cost Drivers page.

You can manually edit the monthly cost of all the eight expense types. Based on your inputs, VMware Cloud services calculate the total amount of private cloud expenses. If you do not provide inputs regarding expenses, VMware Cloud services calculate the total amount based on the default values defined in the reference database.

## Configuring Cost Settings

You can configure Server Hardware cost driver and resource utilization parameters to calculate the accurate cost and improve the efficiency of your environment.

Cost Insight analyzes the resources and the performance of your virtual environment. Based on the values you define, Cost Insight can identify reclamation opportunities and can provide recommendations to reduce wastage of resources and cost.

## Configuring Depreciation Preferences

To compute the amortized cost of the Server Hardware cost driver, you can configure the depreciation method and the depreciation period. Cost Insight supports two yearly depreciation methods and you can set the depreciation period from two to seven years.

**Note** Cost Insight calculates the yearly depreciation values and then divides the value by 12 to arrive at the monthly depreciation.

Method	Calculation
Straight line	Yearly straight line depreciation = [(original cost - accumulated depreciation) / number of remaining depreciation years]
Max of Double or Straight	<p>Yearly max of Double or Straight = Maximum (yearly depreciation of double declining balance method, yearly depreciation of straight line method)</p> <p>Yearly depreciation of double declining method= [(original cost - accumulated depreciation) * depreciation rate].</p> <p>Depreciation rate = 2 / number of depreciation years.</p> <p><b>Note</b> Double declining depreciation for the last year = original cost - accumulated depreciation</p>

## Example: Example for Straight Line Depreciation Method

Year	Original Cost	Accumulated Depreciation	Straight Line Depreciation Cost
Year 1	10000	0	$[(10000-0)/5] = 2000$
Year 2	10000	2000	$[(10000-2000)/4] = 2000$
Year 3	10000	4000	$[(10000-2000)/3] = 2000$
Year 4	10000	6000	$[(10000-2000)/2] = 2000$
Year 5	10000	8000	$[(10000-2000)/1] = 2000$



## Example: Example for Max of Double and Straight Line Depreciation Method

Year	Original Cost	Depreciation Rate	Accumulated Depreciation	Straight Line Depreciation Cost
Year 1	10000	0.4	0	$\text{Maximum}([(10000-0)*0.4], [(10000-0)/5])$ $= \text{Maximum}(4000, 2000) = 4000$ <p>which is 333.33 per month.</p>
Year 2	10000	0.4	4000	$\text{Maximum}([(10000-4000)*0.4], [(10000-4000)/4])$ $= \text{Maximum}(2400, 1500) = 2400$ <p>which is 200 per month.</p>
Year 3	10000	0.4	6400	$\text{Maximum}([(10000-6400)*0.4], [(10000-6400)/3])$ $= \text{Maximum}(1440, 1200) = 1440$ <p>which is 120 per month.</p>
Year 4	10000	0.4	7840	$\text{Maximum}([(10000-7840)*0.4], [(10000-7840)/2])$ $= \text{Maximum}(864, 1080) = 1080$ <p>which is 90 per month.</p>
Year 5	10000	0.4	8920	$\text{Maximum}([(10000-8920)*0.4], [(10000-8920)/1])$ $= \text{Maximum}(432, 1080) = 1080$ <p>which is 90 per month.</p>