



# Best Practices for Dashboards and Widgets

## Cloud Insights

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# Best Practices for Dashboards and Widgets

Tips and tricks to help you get the most out of the powerful features of dashboards and widgets.

## Finding the Right Metric

Cloud Insights acquires counters and metrics using names that sometimes differ from data collector to data collector.

When searching for the right metric or counter for your dashboard widget, keep in mind that the metric you want could be under a different name from the one you are thinking of. While drop-down lists in Cloud Insights are usually alphabetical, sometimes a term may not show up in the list where you think it should. For example, terms like "raw capacity" and "used capacity" do not appear together in most lists.

**Best practice:** Use the search feature in fields such as Filter by or places like the column selector to find what you are looking for. For example, searching for "cap" will show all metrics with "capacity" in their names, no matter where they occur in the list. You can then easily select the metrics you want from that shorter list.

Here are a few alternative phrases you can try when searching for metrics:

When you want to find:	Try also searching for:
CPU	Processor
Capacity	Used capacity Raw capacity Provisioned capacity Storage pools capacity <other asset type> capacity Written capacity
Disk Speed	Lowest disk speed Least performing disk type
Host	Hypervisor Hosts
Hypervisor	Host Is hypervisor
Microcode	Firmware

Name	Alias Hypervisor name Storage name <other asset type> name Simple name Resource name Fabric Alias
Read / Write	Partial R/W Pending writes IOPS - Write Written capacity Latency - Read Cache utilization - read
Virtual Machine	VM Is virtual

This is not a comprehensive list. These are examples of possible search terms only.

## Finding the Right Assets

The assets you can reference in widget filters and searches vary from asset type to asset type.

In dashboards and asset pages, the asset type around which you are building your widget determines the other asset type counters for which you can filter or add a column. Keep the following in mind when building your widget:

This asset type / counter:	Can be filtered for under these assets:
Virtual Machine	VMDK
Datastore(s)	Internal Volume VMDK Virtual Machine Volume
Hypervisor	Virtual Machine Is hypervisor Host
Host(s)	Internal Volume Volume Cluster Host Virtual Machine
Fabric	Port

This is not a comprehensive list.

**Best practice:** If you are filtering for a particular asset type that does not appear in the list, try building your query around an alternate asset type.

## Scatter Plot Example: Knowing your Axis

Changing the order of counters in a scatter plot widget changes the axes on which the data is displayed.

### *About this task*

This example will create a scatter plot that will allow you to see under-performing VMs that have high latency compared to low IOPS.

### *Steps*

1. Create or open a dashboard in edit mode and add a **Scatter Plot Chart** widget.
2. Select an asset type, for example, *Virtual Machine*.
3. Select the first counter you wish to plot. For this example, select *Latency - Total*.

*Latency - Total* is charted along the X-axis of the chart.

4. Select the second counter you wish to plot. For this example, select *IOPS - Total*.

*IOPS - Total* is charted along the Y-axis in the chart. VMs with higher latency display on the right side of the chart. Only the top 100 highest-latency VMs are displayed, because the **Top by X-axis** setting is current.



5. Now reverse the order of the counters by setting the first counter to *IOPS - Total* and the second to *Latency - Total*.

*Latency - Total* is now charted along the Y-axis in the chart, and *IOPS - Total* along the X-axis. VMs with higher IOPS now display on the right side of the chart.

Note that because we haven't changed the **Top by X-Axis** setting, the widget now displays the top 100 highest-IOPS VMs, since this is what is currently plotted along the X-axis.



You can choose for the chart to display the Top N by X-axis, Top N by Y-axis, Bottom N by X-axis, or Bottom N by Y-axis. In our final example, the chart is displaying the Top 100 VMs that have the highest total IOPS. If we change it to **Top by Y-axis**, the chart will once again display the top 100 VMs that have the highest total latency.

Note that in a scatter plot chart, you can click on a point to drill down to the asset page for that resource.

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