# **EU Dashboard Web Help**

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#### What is the EU Dashboard?

EU stands for Effective Utilization. The EU Dashboard displays the utilization of resources in the Web, Memcache, MySQL, and Membase machines that a game runs on.

It helps identify whether the number of machines should be reduced or increased to optimize game performance.

When you select a metric, the table displays the corresponding data. The data in the table is displayed based on the date and half-hour timeslots the data was collected.

Data is collected in a rolling window, every half hour, in a 24-hour timeframe. Data viewed on the tab is customizable; you can select the parameters for which you want to view the data.

### How do I monitor Resource Utilization using the EU Dashboard?

The resource utilization for a game can be tracked using the CPU, network, memory, database operations, hits, gets, and sets. The purpose of tracking the resource utilization is to minimize the number of machines used to run a game.

A value of 0 means unutilized while a value of 1 implies full utilization.

Different pools of machines have different limiting factors, like the Web machines are limited by CPU. For Memcache, the top limiting factor is memory, which is used more as compared to other resources.

#### What are Web Machines?

The Web machines run the game and are limited by resources that show highest values in the graph. Web provides individual data of CPU, network, memory and RPS (Request per Second) utilization at a certain point of time for a game.

#### What is Memcache?

The Memcache machines handle the memory cache and name value cache for MySQL. It maintains all data in the memory, and for a given key or a string, it provides the value directly. Memcache enables faster operations on the game data, instead of accessing the database, which is a slow process.

#### What is MySQL?

The MySQL layer contains the database machines and zPerfmon tracks the disk operations per second in these machines.

#### What is Membase?

The Membase layer is a substitute for both MySQL and Memcache combined together. It provides information about hits, sets, and gets in addition to CPU, network, and memory.

# How do I analyze and interpret data from the EU Dashboard?

# Reading the Graph

The graph provides the following features to interpret data:

- The graph displays data in specified time intervals, such as for a month, a day, an hour, half hourly or at a certain data point.
- The slider at the bottom of the graph can be resized and moved to view data at specific intervals.

Moving the cursor over the graph displays data at a certain point on the graph, with the corresponding data, time, and date displayed at the top of the graph.

The tags displayed to the right of the graph represent changes made in the game and infrastructure such as changes in the numbers of machines used to serve a game or game releases and periodic maintenance activities.

In a known situation, if the resource utilization for a particular pool of machines is low, the number of machines used can be reduced. This will result in the existing machines taking the extra load, up to a point where utilization is maximized without hindering performance.

# How do I view the data in separate charts?

If you would like to see each parameter in a separate graph, click on the **Split Chart** button. You can choose to view data **overall** or on a day-on-day **(DoD)** or week-on-week **(WoW)** basis.

You can choose to see data for a day, a week, a month or two months by clicking on **1d**, **1w**, **1m** or **2m** in the **Zoom** field. You can select the dates between which you wish to view data by editing the dates in the **From** and **To** date fields. Clicking here will display a calendar for the month from which you can select a particular day.

Click on the **Combine Charts** button to view the data in a single chart again.

# How do I view data from a different dashboard that corresponds to a particular timeslot on the EU dashboard?

If you would like to see a graph from the CTO, Business or Profile dashboard that corresponds to a particular time slot on the EU dashboard graph, simply click at that point on the graph. A pop-up appears using which you can go to the corresponding time slot in the CTO, Business or Profile dashboards.

## **Understanding the Table**

To view the data in table form, click on the **Show Table** button.

The table displays the data for the selected metrics, which is also reflected in the graph. Clicking on the header of any column will sort the data in ascending or descending order.