**Semaphore**

Semaphores can be used to restrict the number of certain jobs which are running at the same time. This may be useful for jobs which access shared or limited resources. A semaphore has a value which represents the maximum number of jobs which use that semaphore at the same time.

Semaphores, like most configuration items, are unique within a tenant, though a semaphore may be defined on multiple branches of the same project as long as the value is the same. This is to aid in branch maintenance, so that creating a new branch based on an existing branch will not immediately produce a configuration error.

Zuul also supports global semaphores (see [Global Semaphore](https://zuul-ci.org/docs/zuul/latest/tenants.html#global-semaphore)) which may only be created by the Zuul administrator, but can be used to coordinate resources across multiple tenants.

Semaphores are never subject to dynamic reconfiguration. If the value of a semaphore is changed, it will take effect only when the change where it is updated is merged. However, Zuul will attempt to validate the configuration of semaphores in proposed updates, even if they aren’t used.

An example usage of semaphores follows:

- **semaphore**:

**name**: semaphore-foo

**max**: 5

- **semaphore**:

**name**: semaphore-bar

**max**: 3

**semaphore**

The following attributes are available:

**semaphore.name*(required)***

The name of the semaphore, referenced by jobs.

**semaphore.max  
Default:1**

The maximum number of running jobs which can use this semaphore.