

# Mesos University

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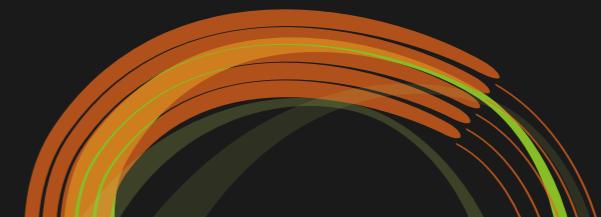
@jbclaramonte  
@plopezFr  
@jpthiery  
@aurelienmaury



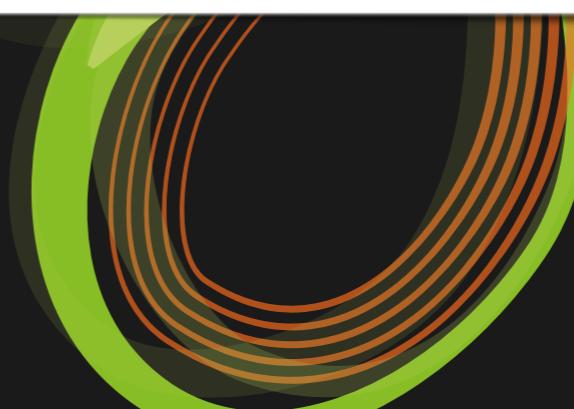
#MesosUniversity

@XebiaFr @YesWeScale

# Mesos University



BreizhC@mp  
Mix de technologies



#MesosUniversity

@XebiaFr @YesWeScale

# Plan

# Plan



# Plan





# Bonjour Mesos



# Les origines

# Les origines



2009

# Les origines



2009



Florian Leibert

Benjamin Hindman

# Les origines



2009



Florian Leibert

Benjamin Hindman



2010 : incubator

# Les origines



Florian Leibert



2009



2010 : incubator



Benjamin Hindman

# Les origines



Florian Leibert

Benjamin Hindman



2009



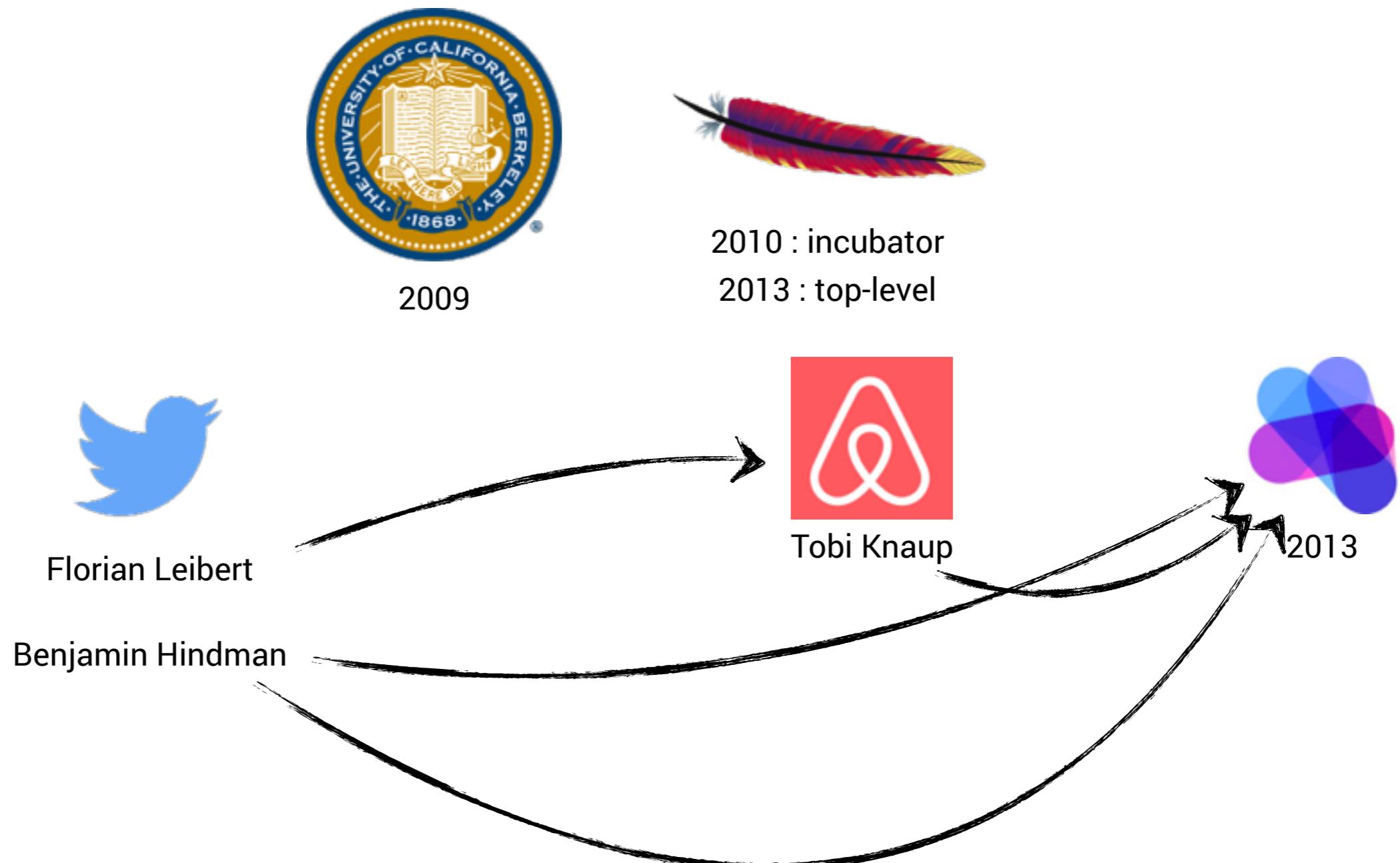
2010 : incubator



Tobi Knaup



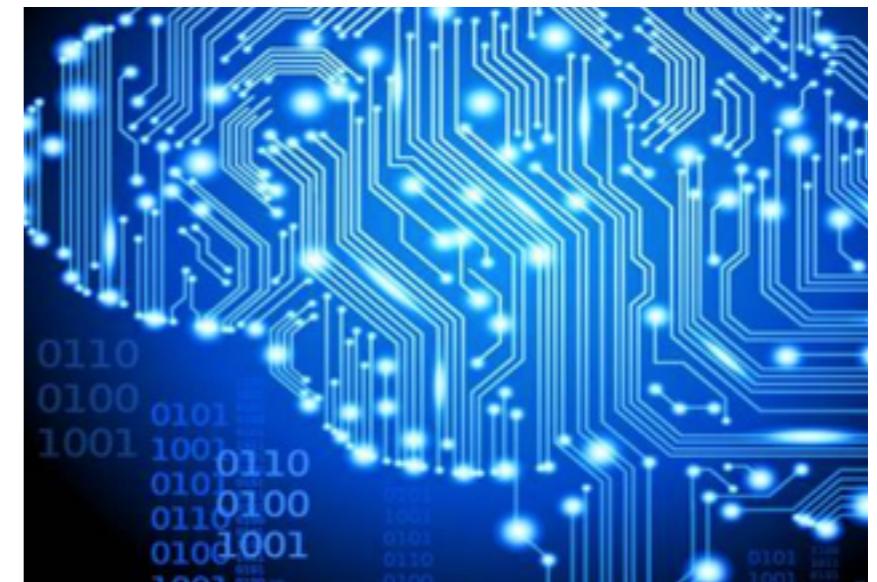
# Les origines



# Mesos : (n. pr.)

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- Du Grec Ancien μέσος : milieu
- Clustering générique
- Interface de partage de ressources
- Support d'applications distribuées



DRY

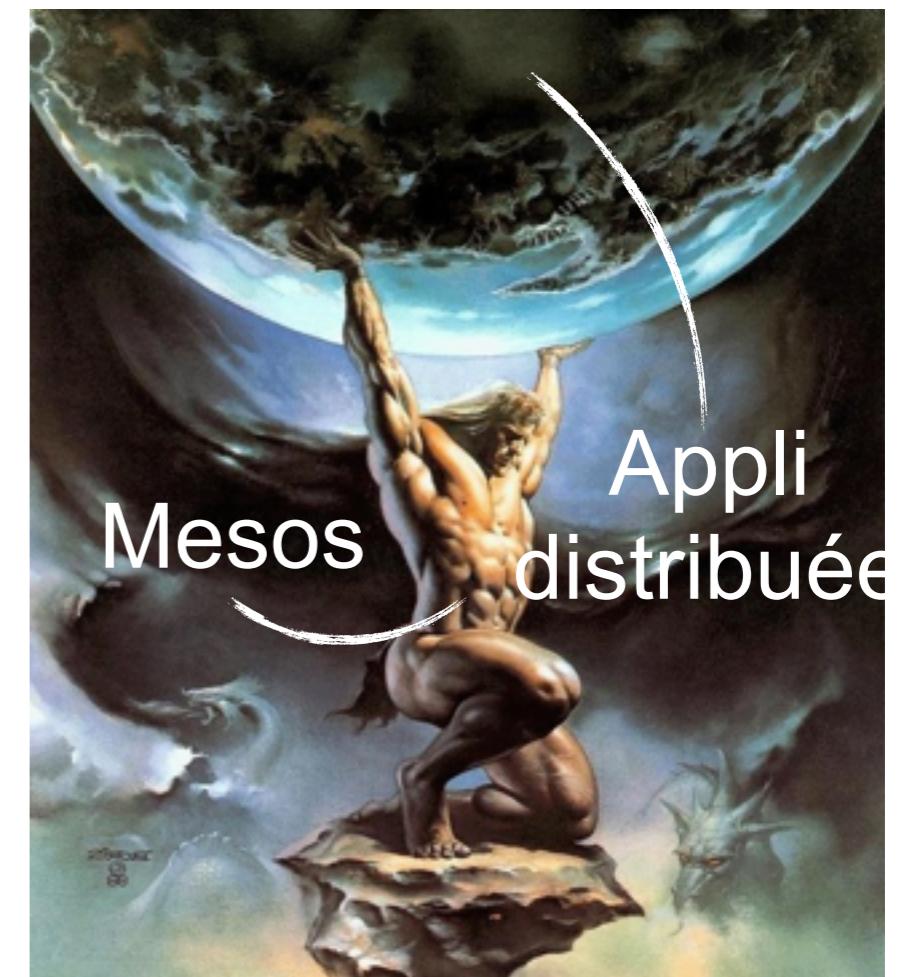


# DRY

- Start-Stop
- Monitor-Clean
- Multi-applications

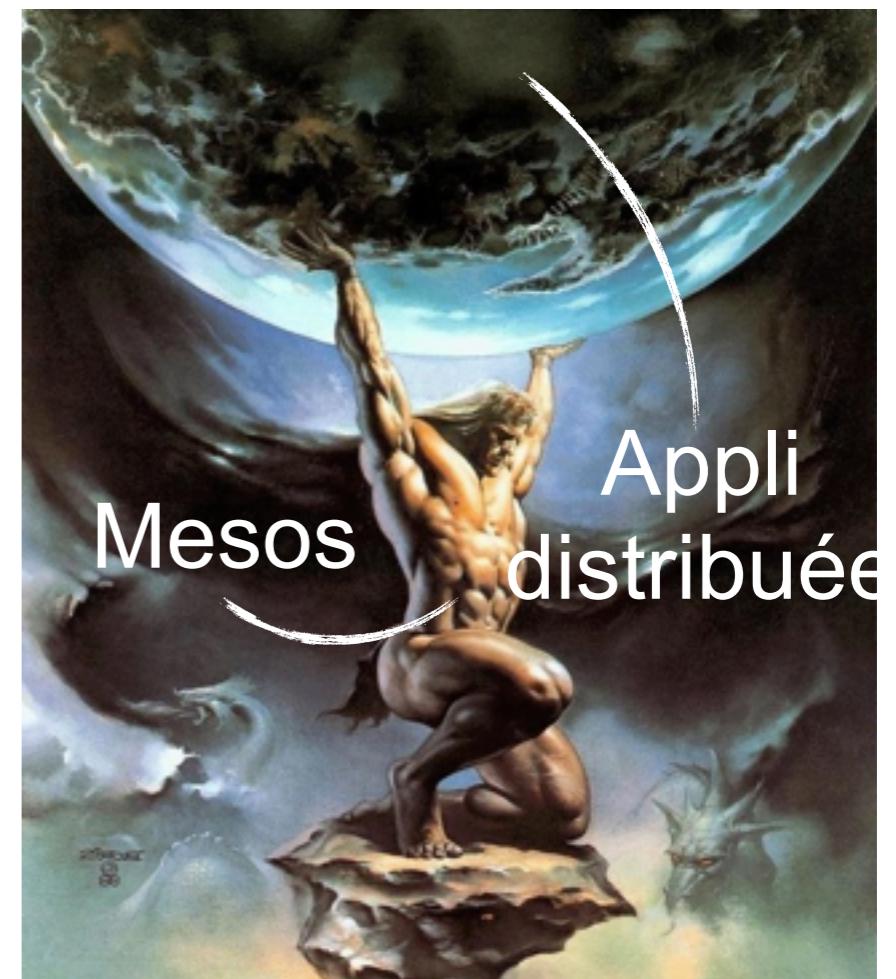


# Cas d'usage



# Cas d'usage

- Toutes applications distribuées
- Augmenter la densité applicative



# Chaud !



# validé au front



# Validé au front



ebay



SQUARESPACE



viadeo



P  
PayPal



#MesosUniversity

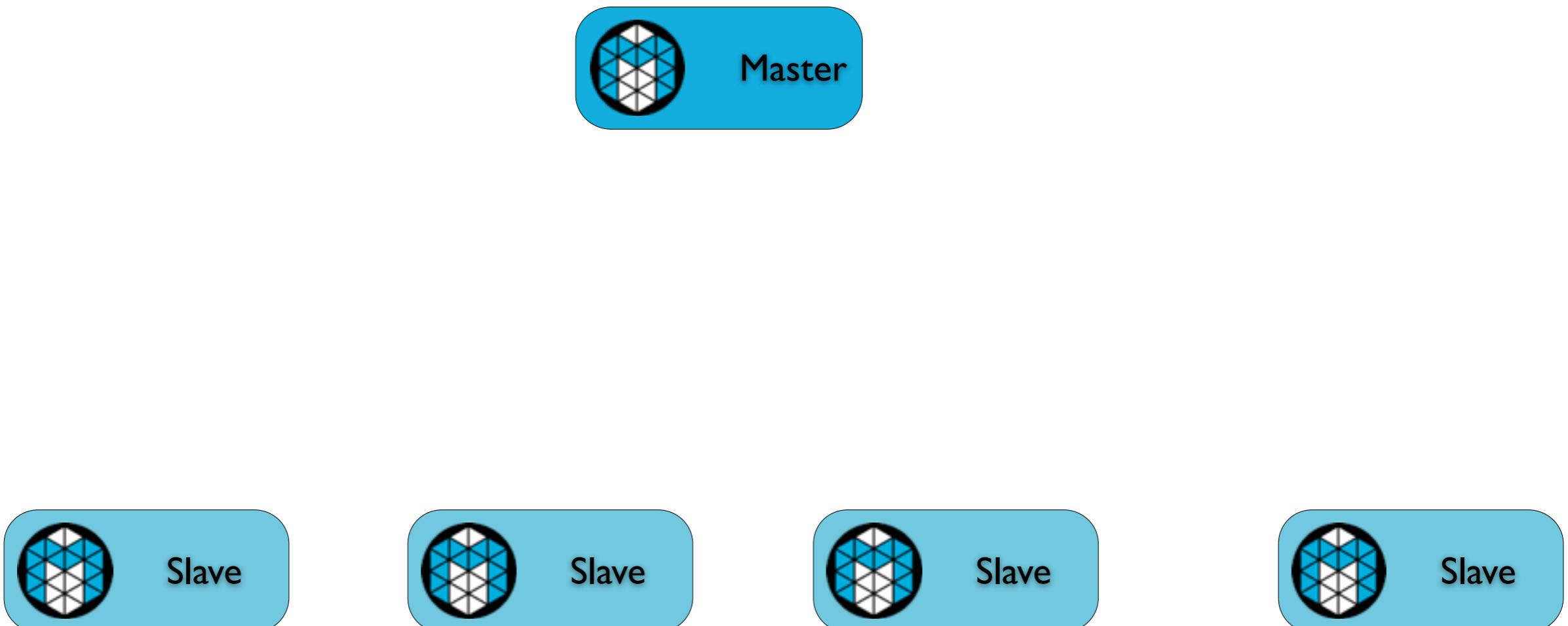
@XebiaFr @YesWeScale

# Fonctionnalités

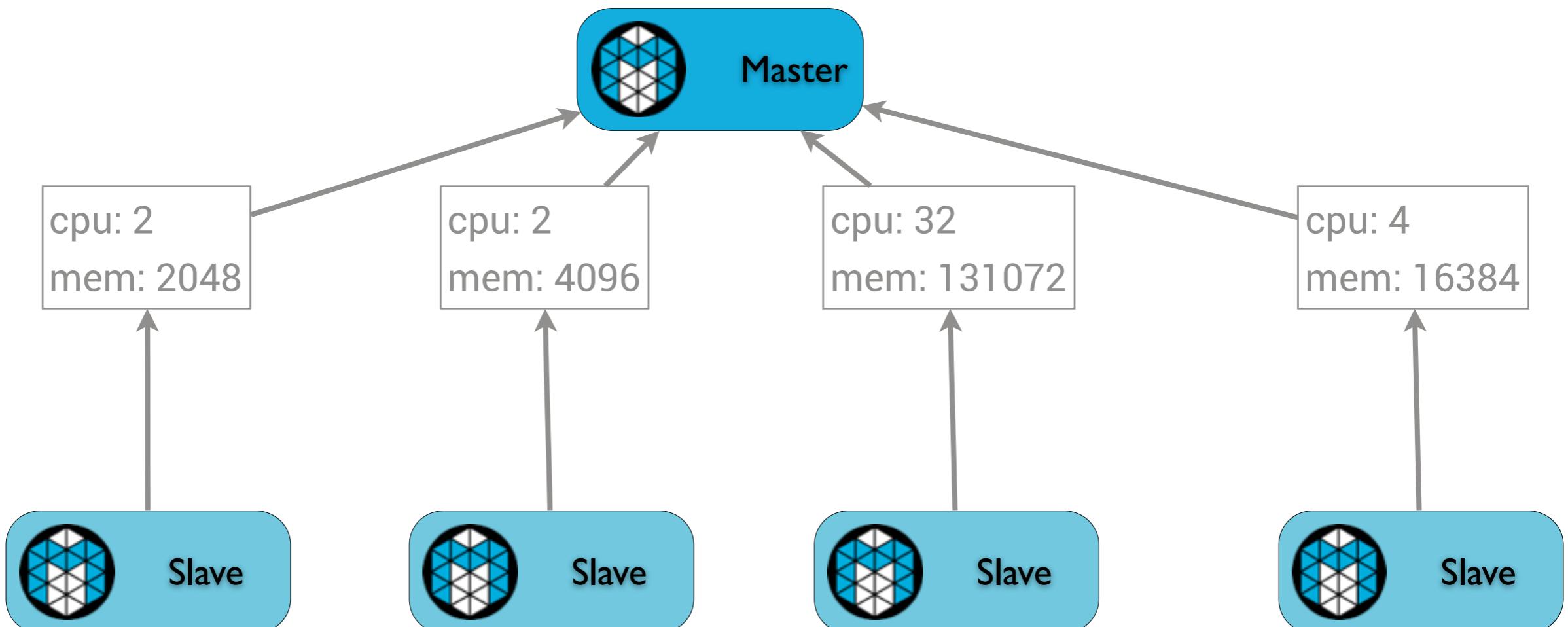


# Partage de ressources

# Partage de ressources



# Partage de ressources



# Frameworks

# Frameworks



Scheduler

Lance des tâches

# Frameworks



Scheduler

Lance des tâches



Executor

Exécute les tâches

# Frameworks



Scheduler

Lance des tâches



Mesos Master

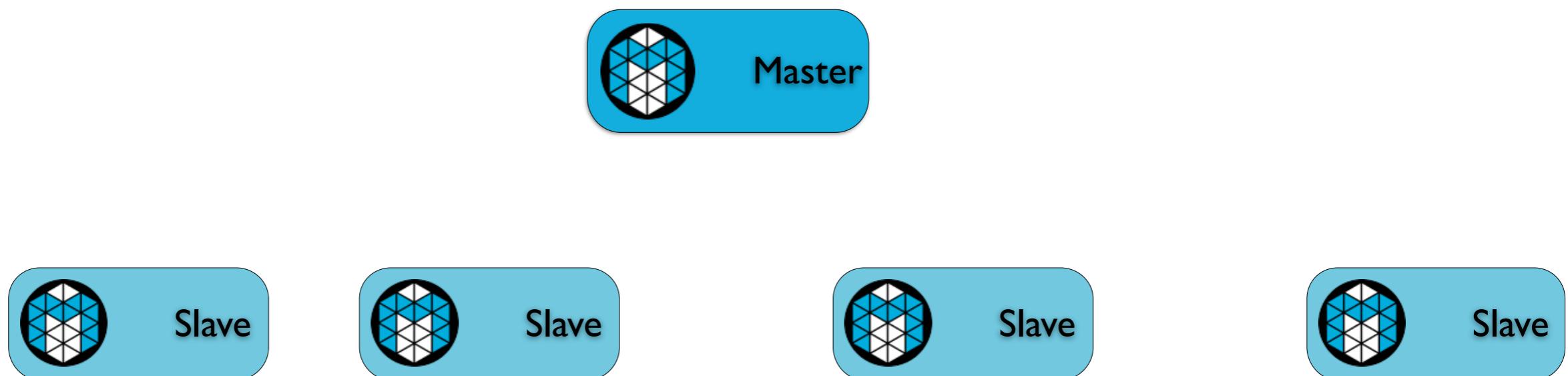
Maintient le journal de ressources  
Relaie les tâches aux slaves



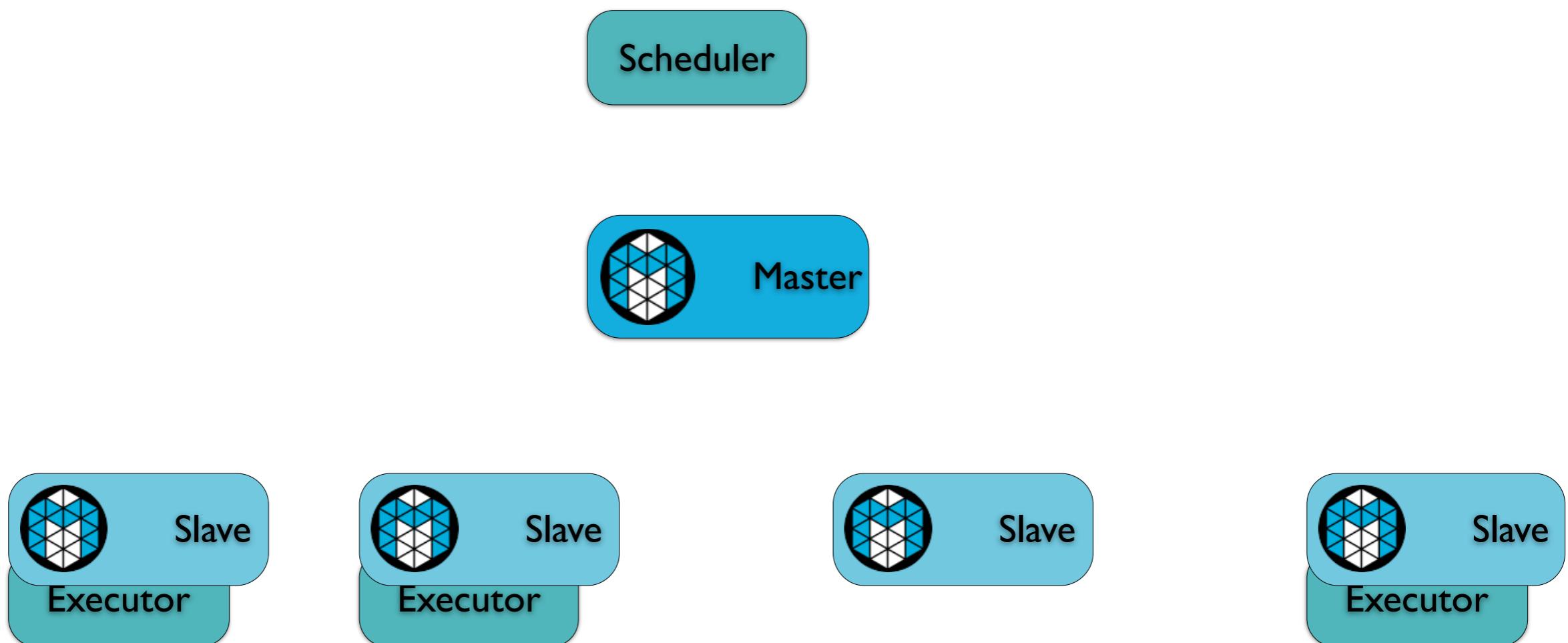
Executor

Exécute les tâches

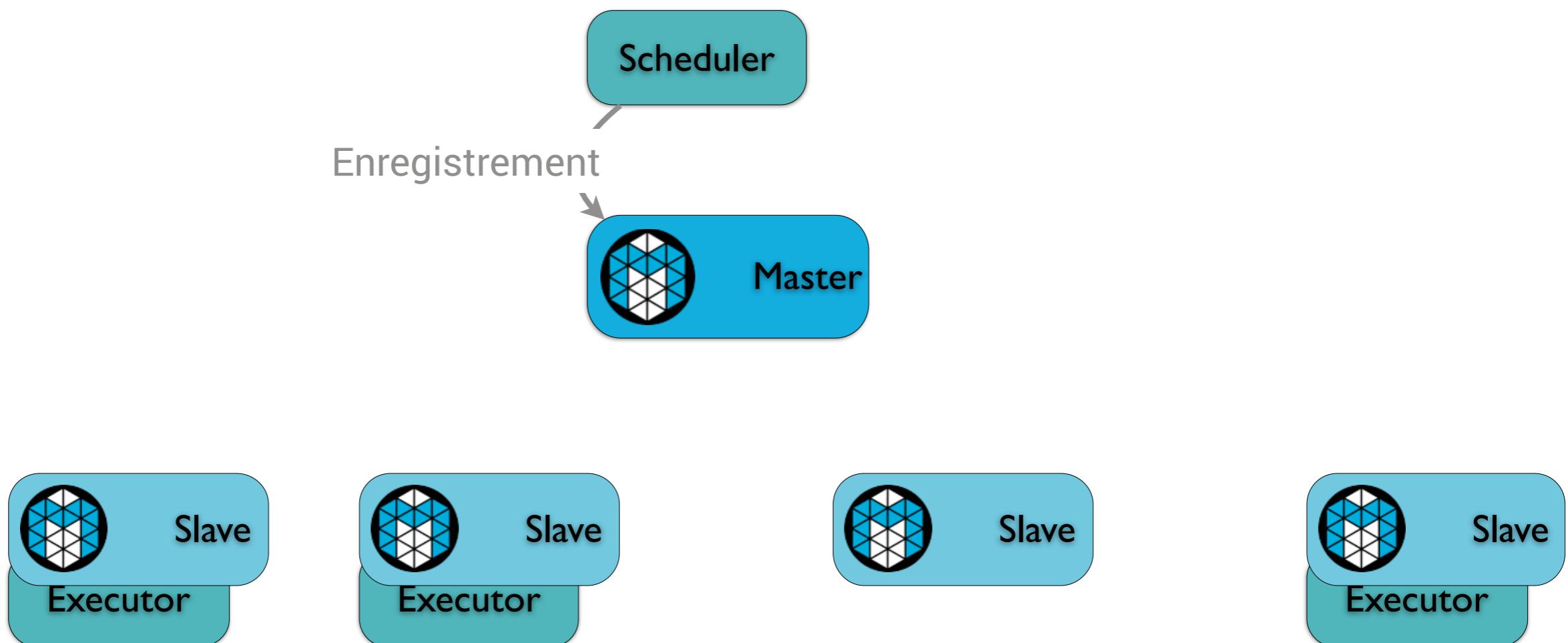
# Place de marché



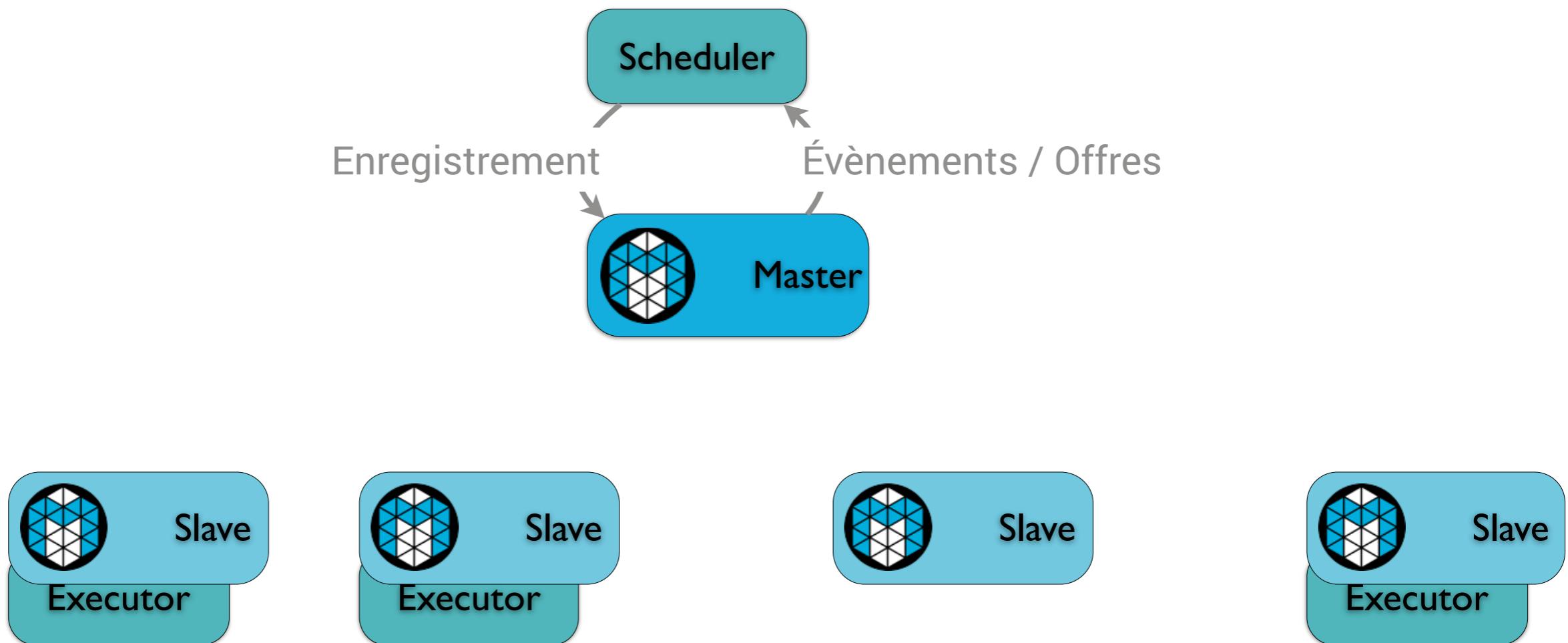
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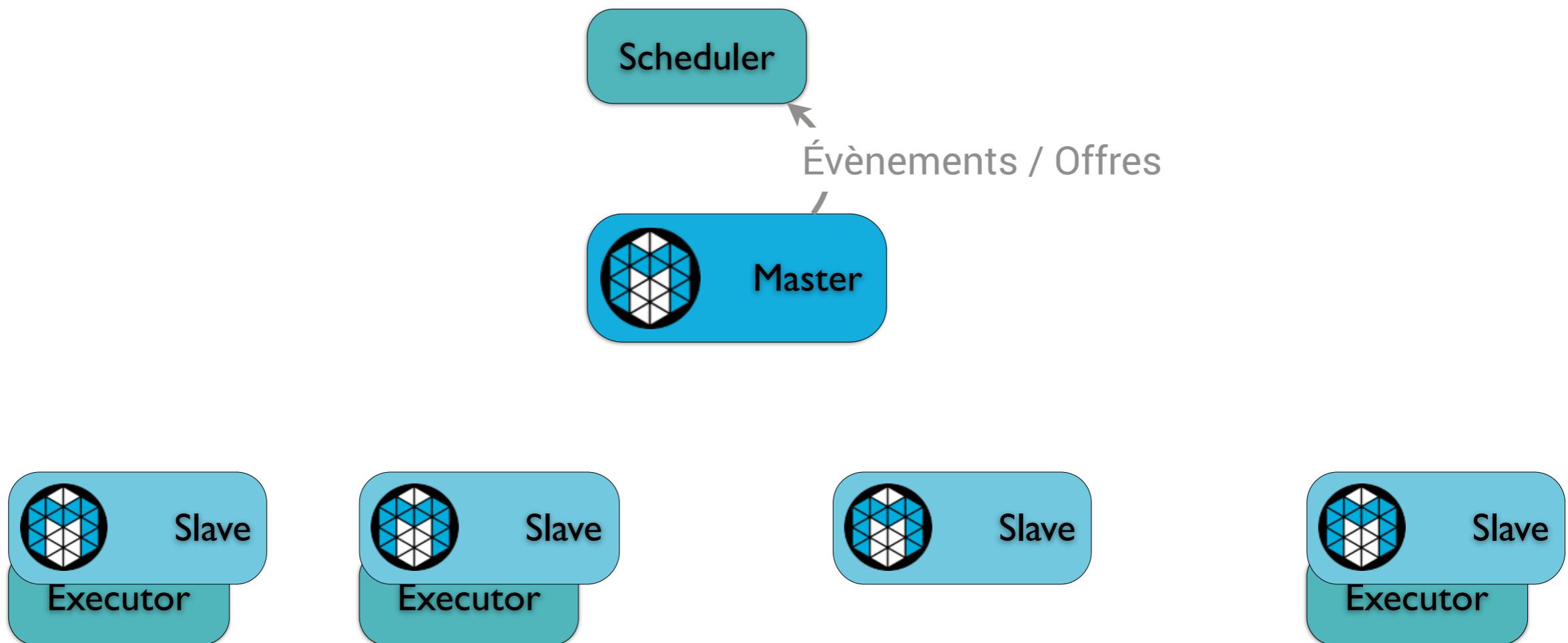
# Place de marché



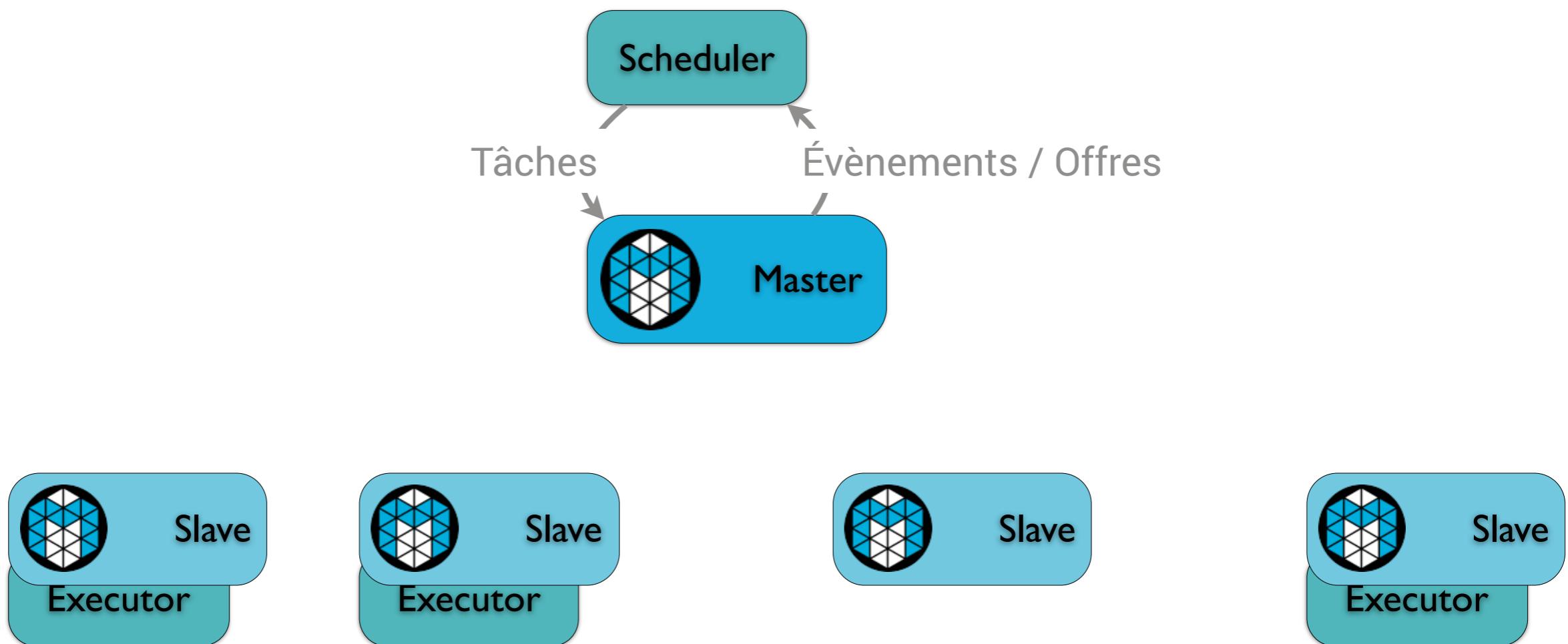
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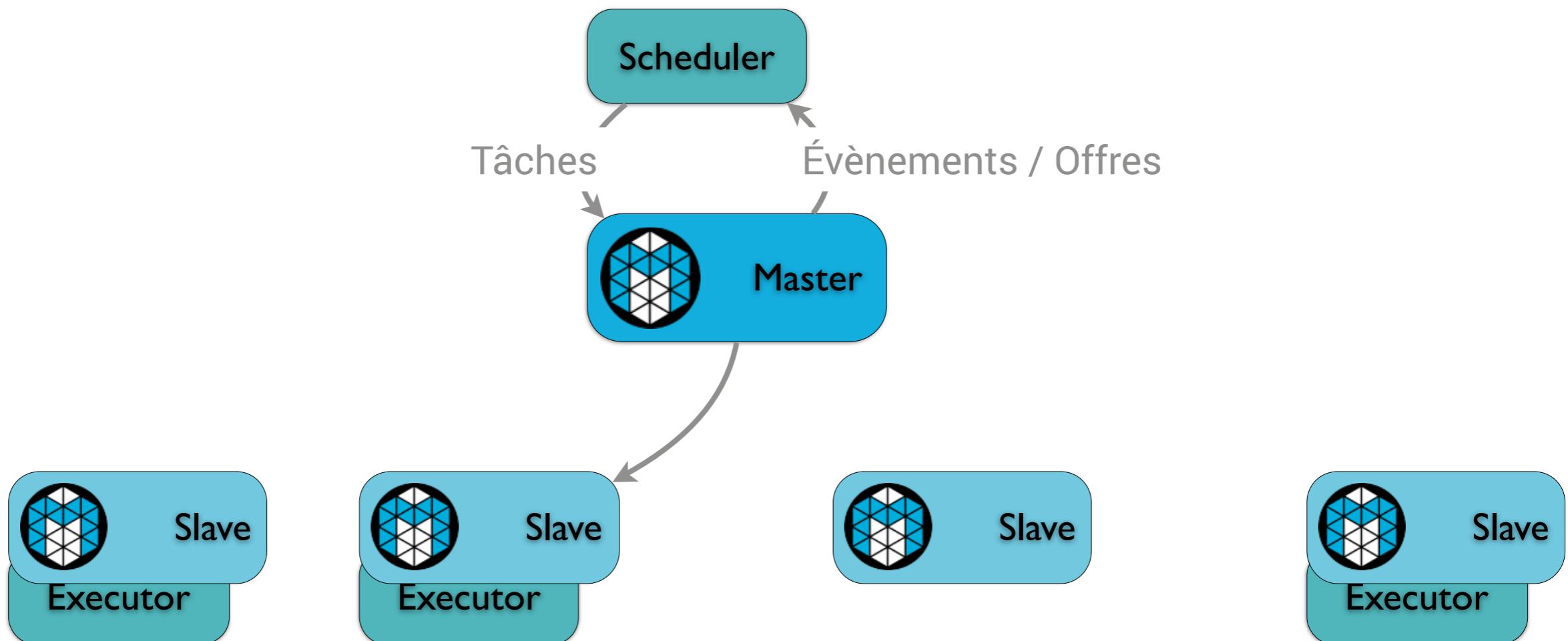
# Place de marché



# Place de marché



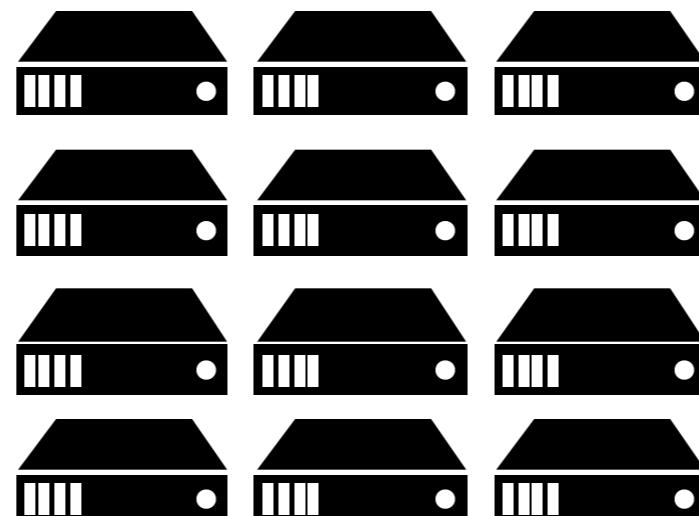
# Place de marché



# Problème

# Problème

La vie c'est pas ça :



# Life is a biche !



# Life is a biche !



# Hum hum

# Hum hum

La vie c'est ça :



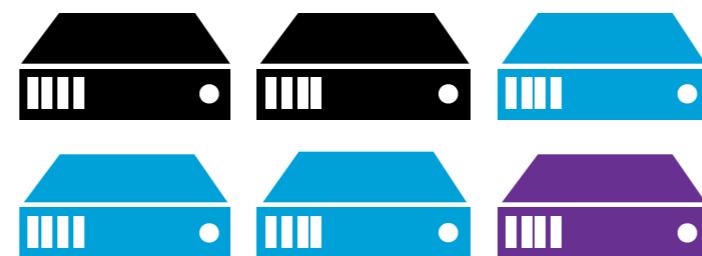
# Hum hum

La vie c'est ça :



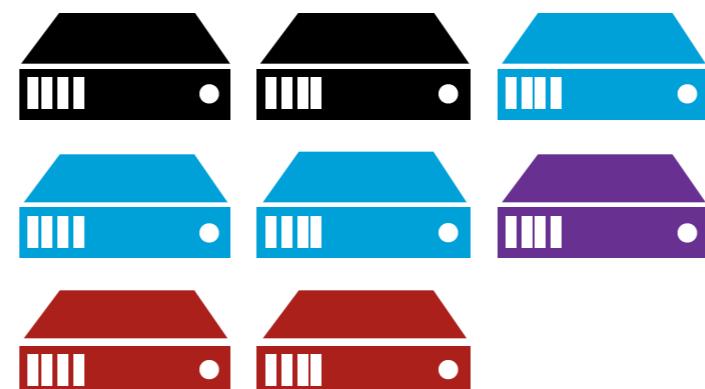
# Hum hum

La vie c'est ça :



# Hum hum

La vie c'est ça :



# Hum hum

La vie c'est ça :

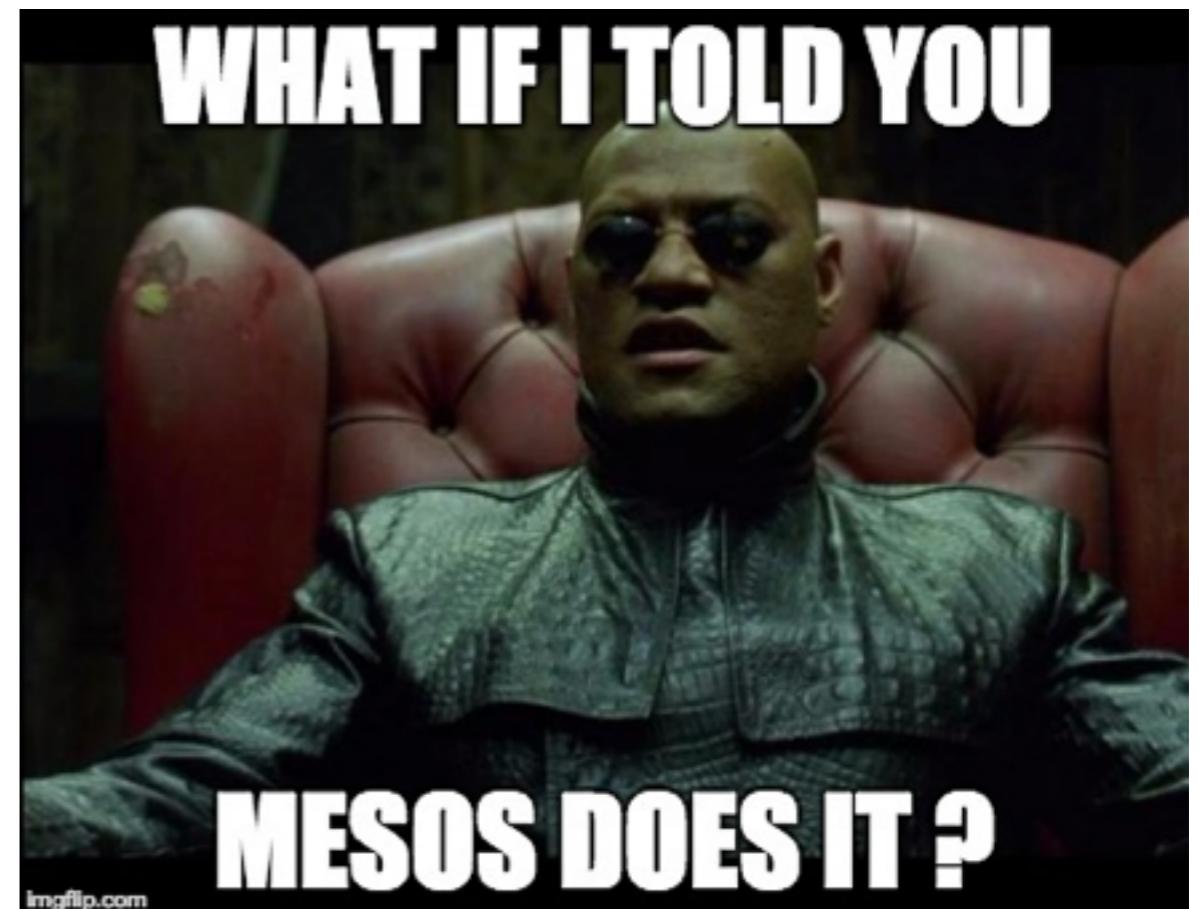


# Hum hum

La vie c'est ça :

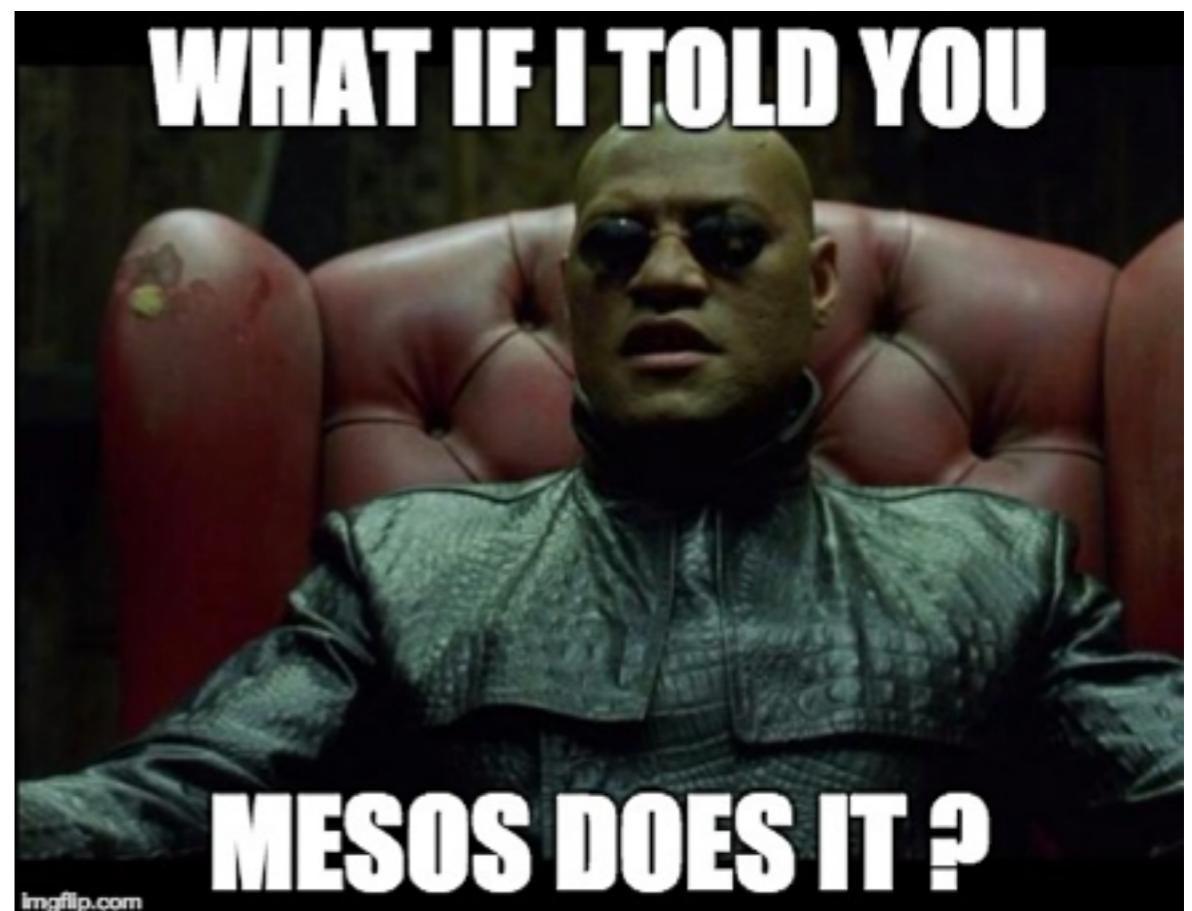


# Mesos lave plus blanc



# Mesos lave plus blanc

- Ressources arbitraires par slave
- Intégrées dans les offres
- Tags pour donner du contexte

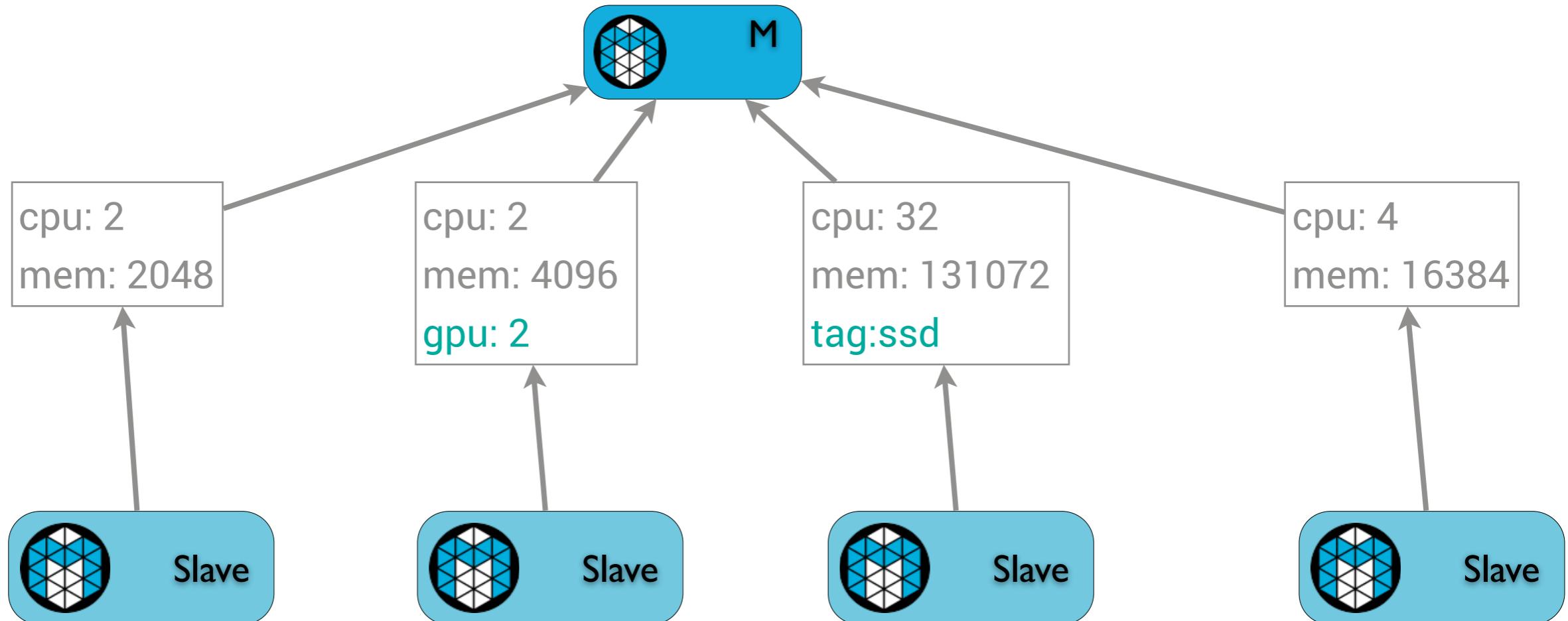


# Ressources partagées

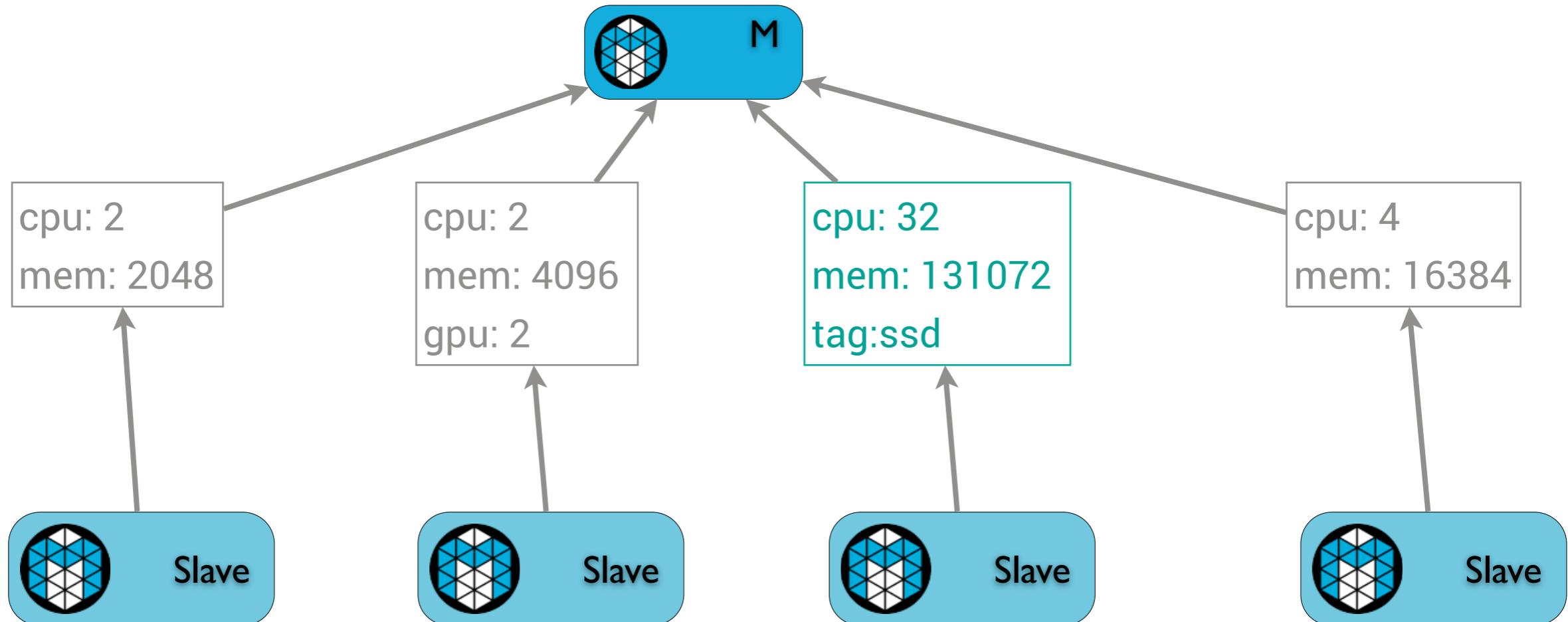
# Ressources partagées



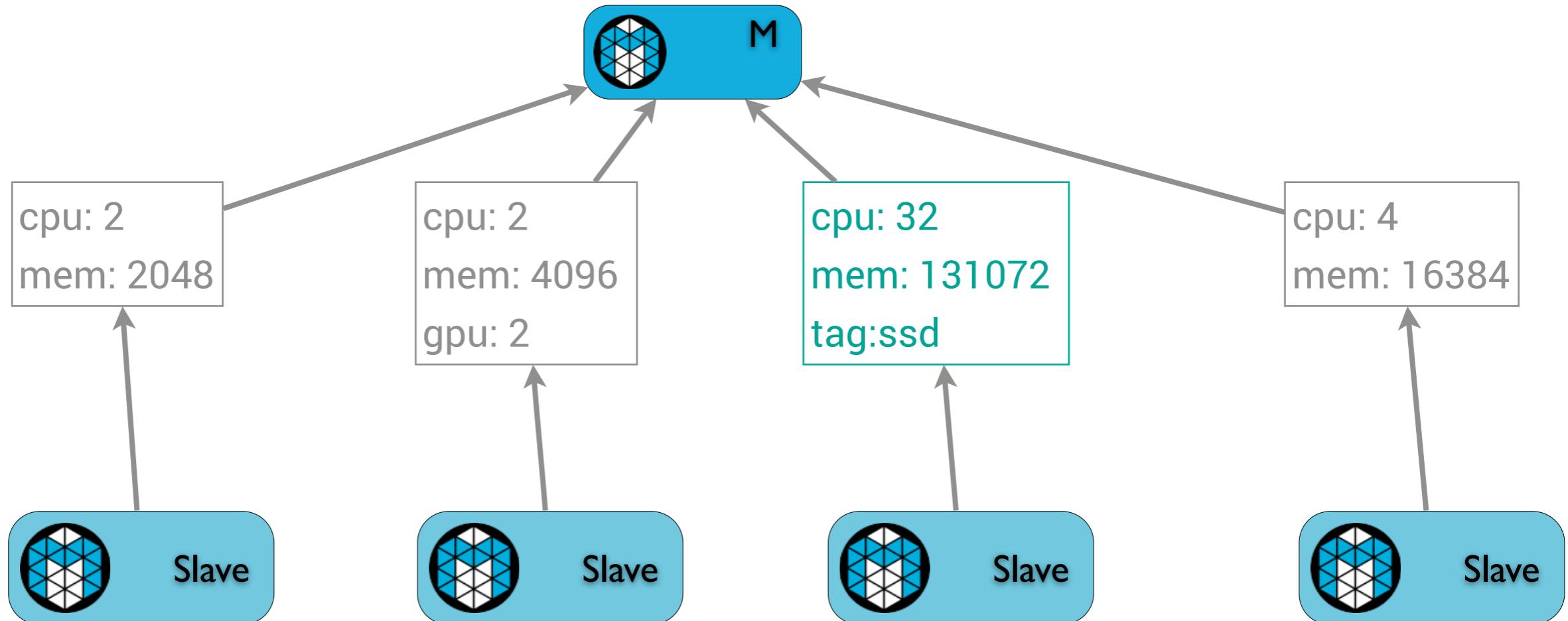
# Ressources partagées



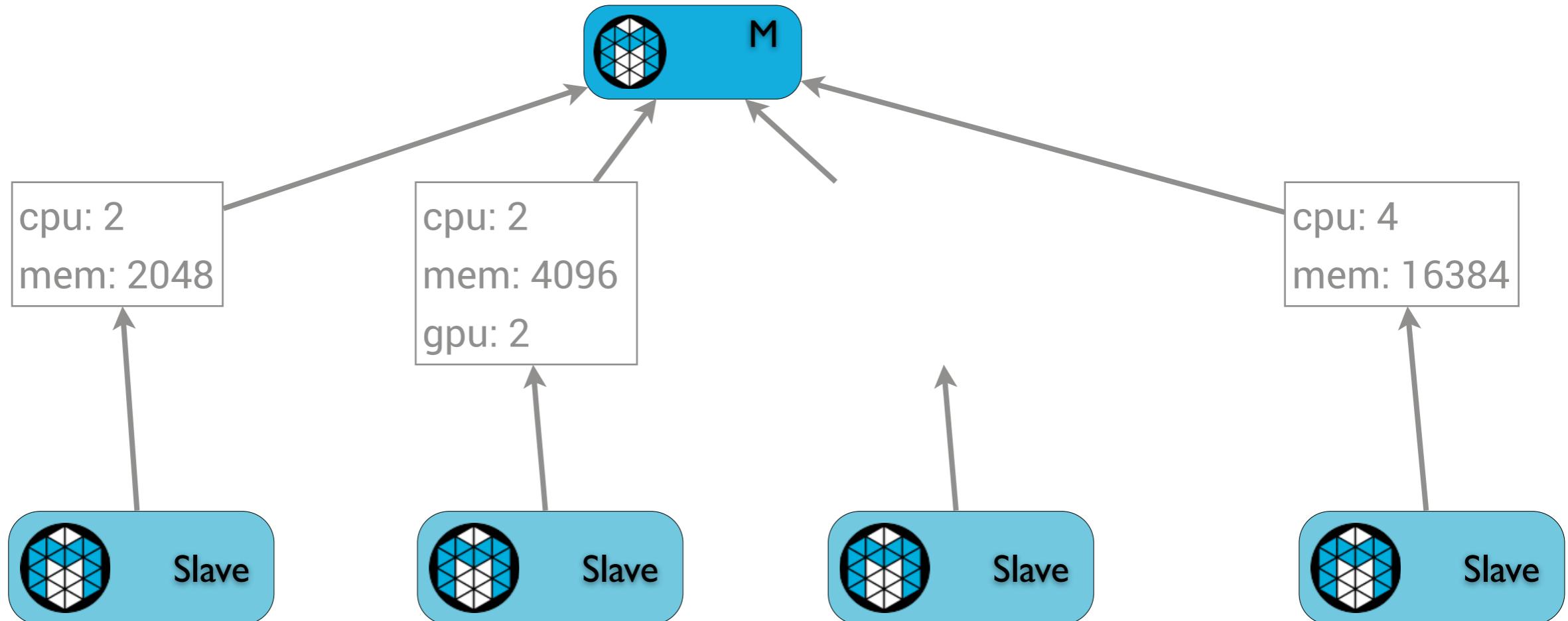
# Ressources partagées



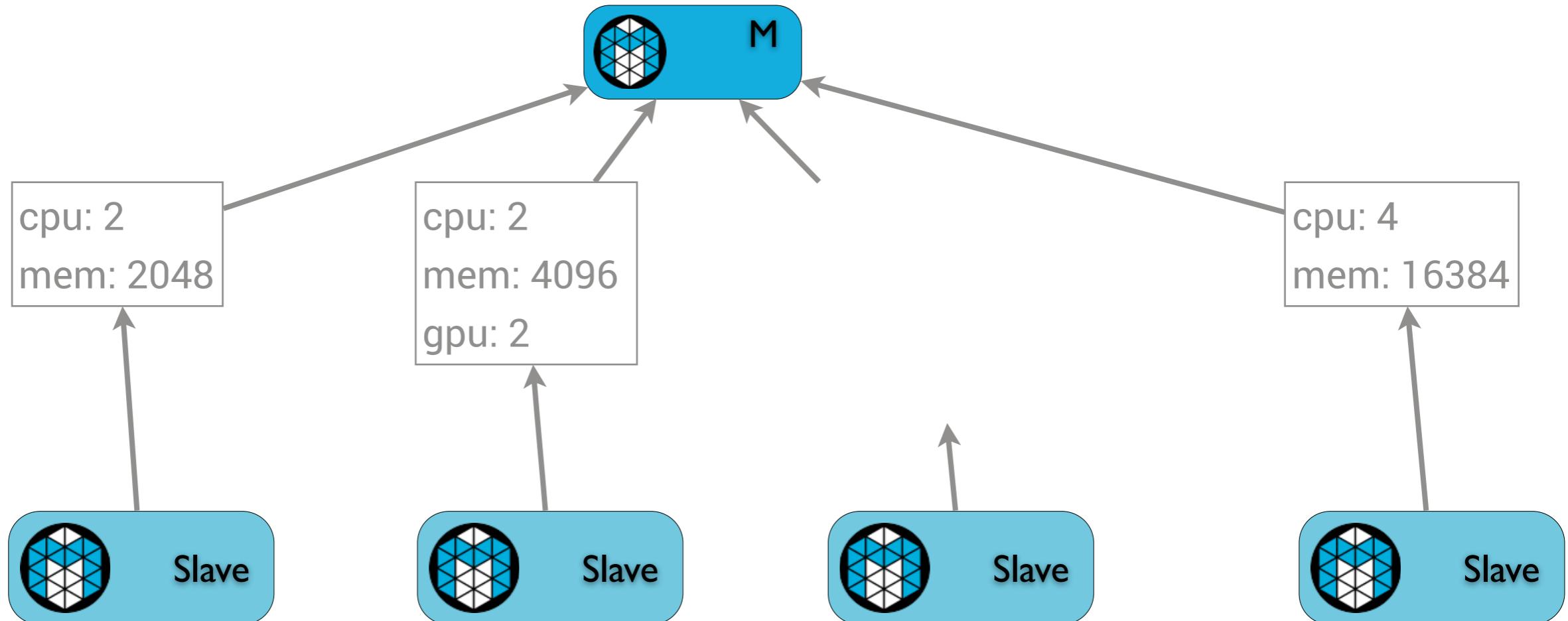
# Ressources partagées



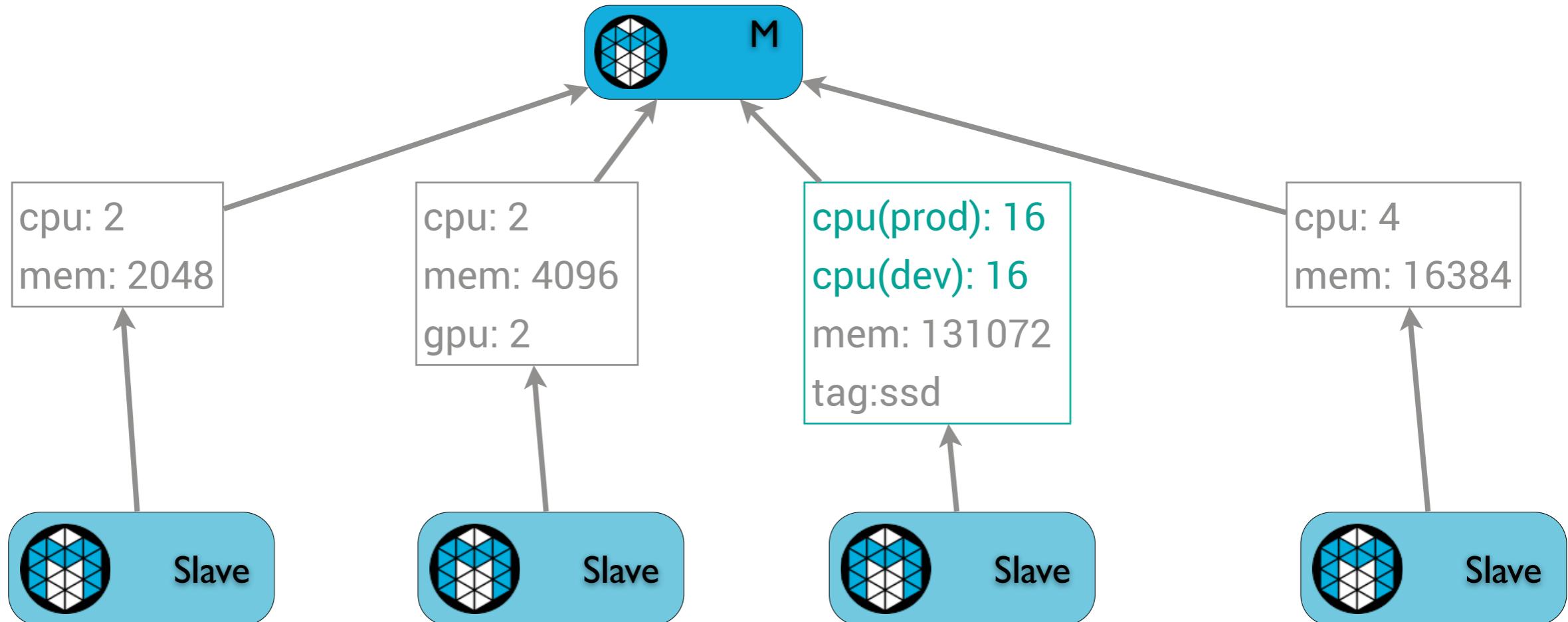
# Ressources partagées



# Ressources partagées



# Ressources partagées



# Roles

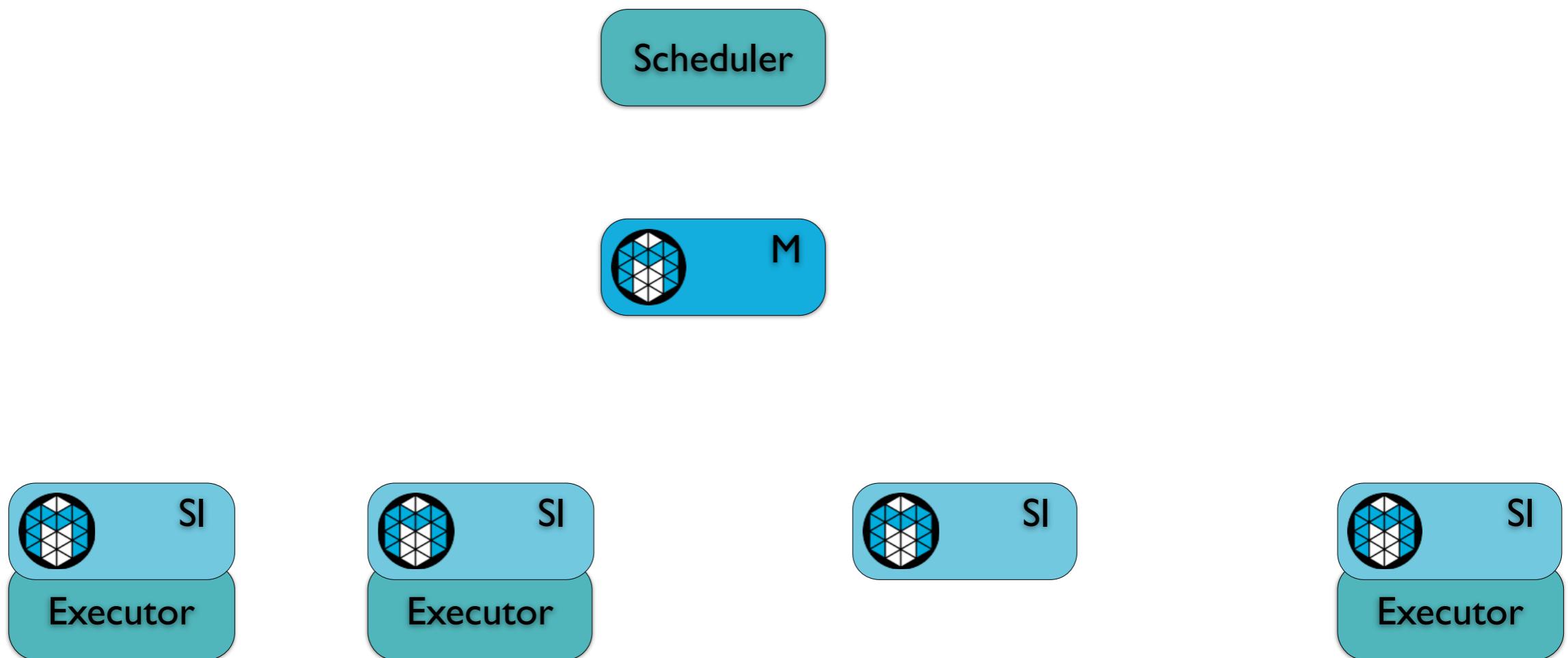


# Roles

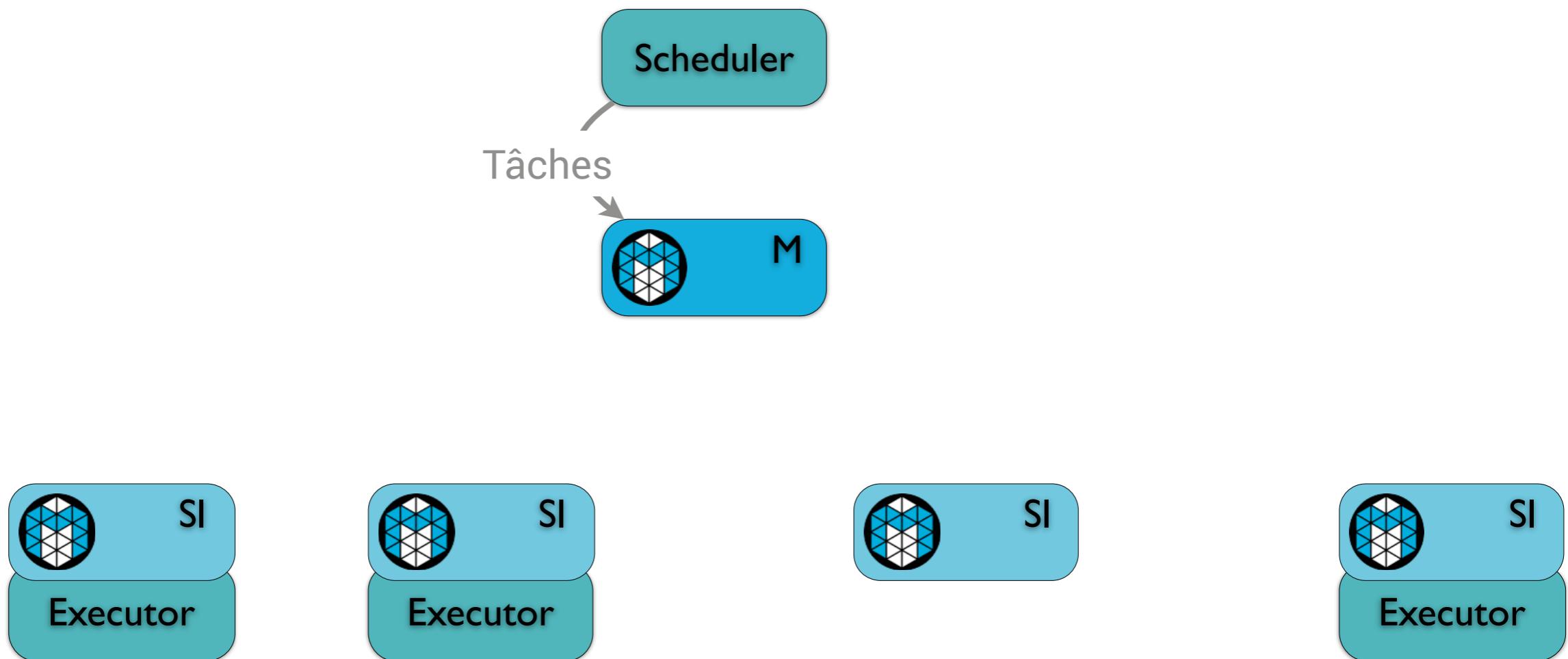
- Partitionnement des ressources d'un slave
- Nommage arbitraires
- Abonnement des schedulers



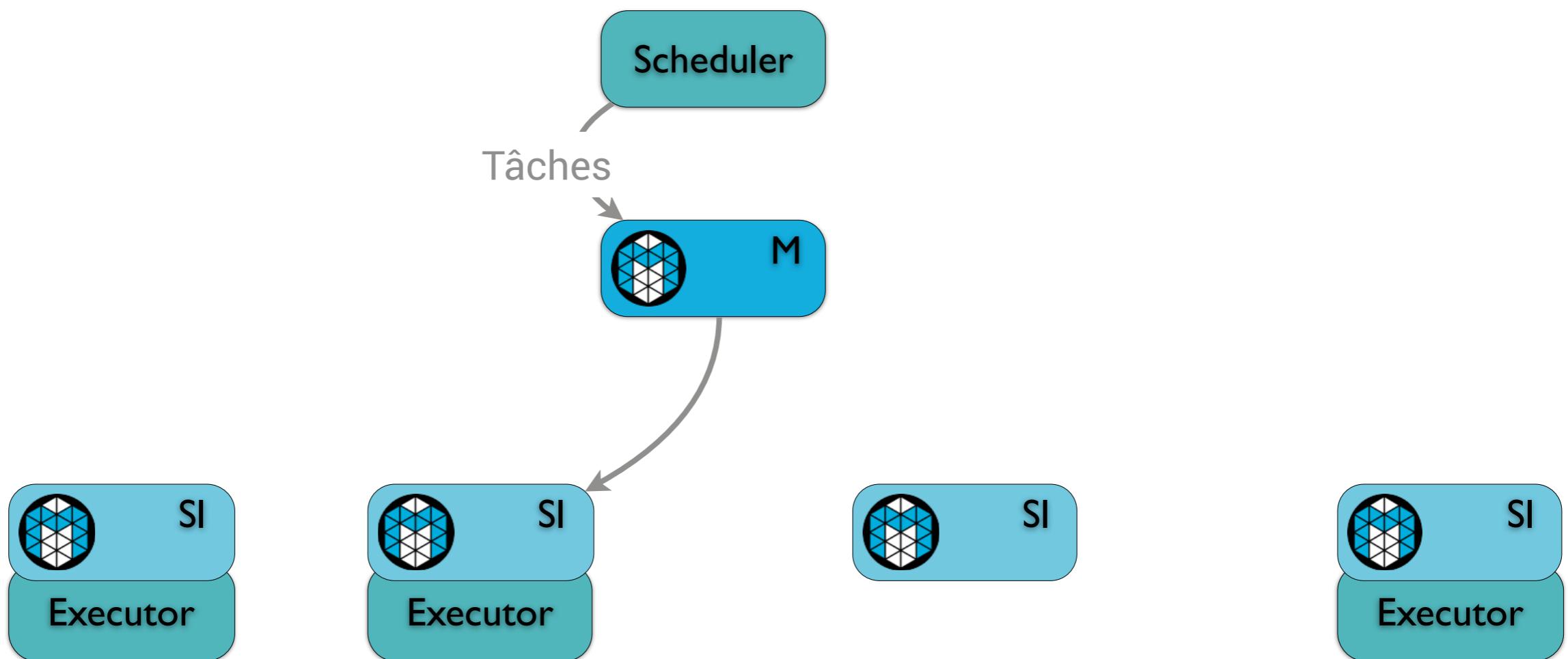
# Monitoring



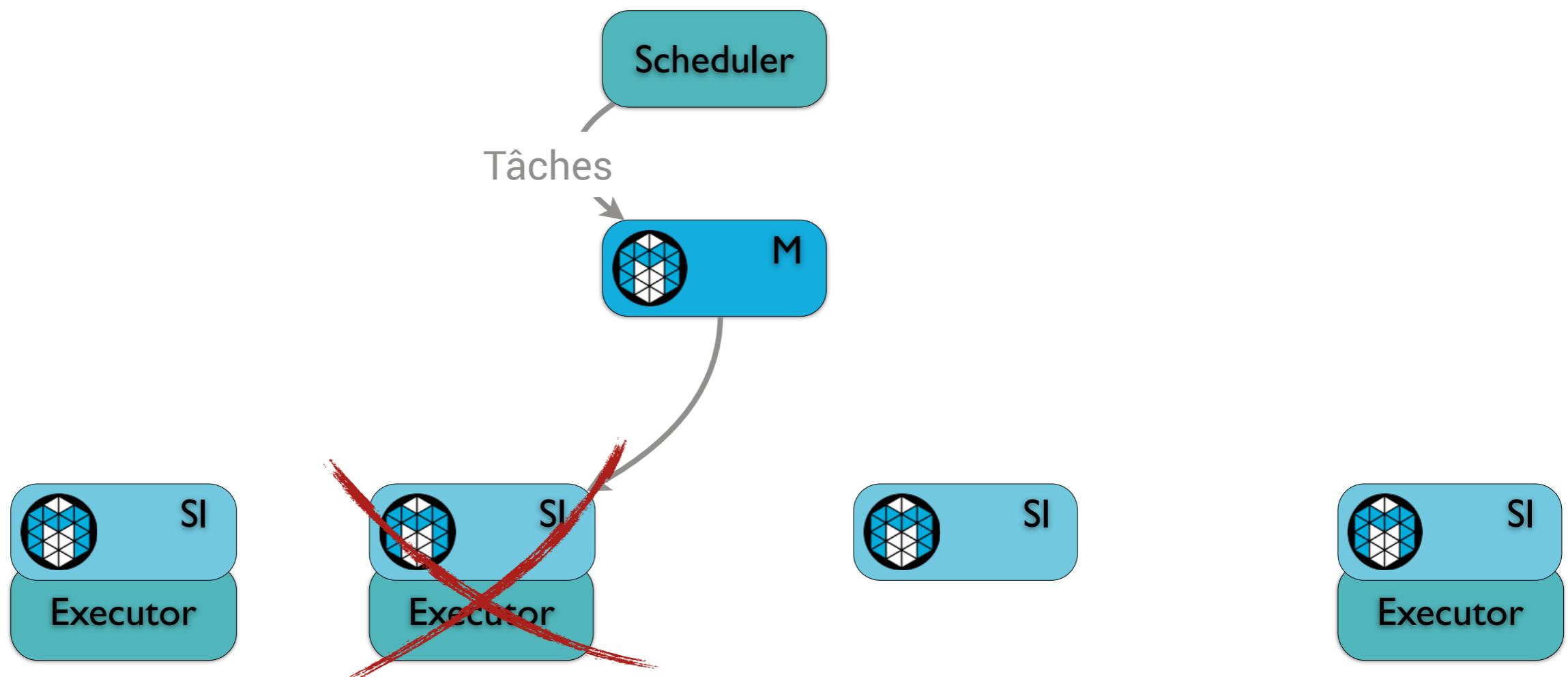
# Monitoring



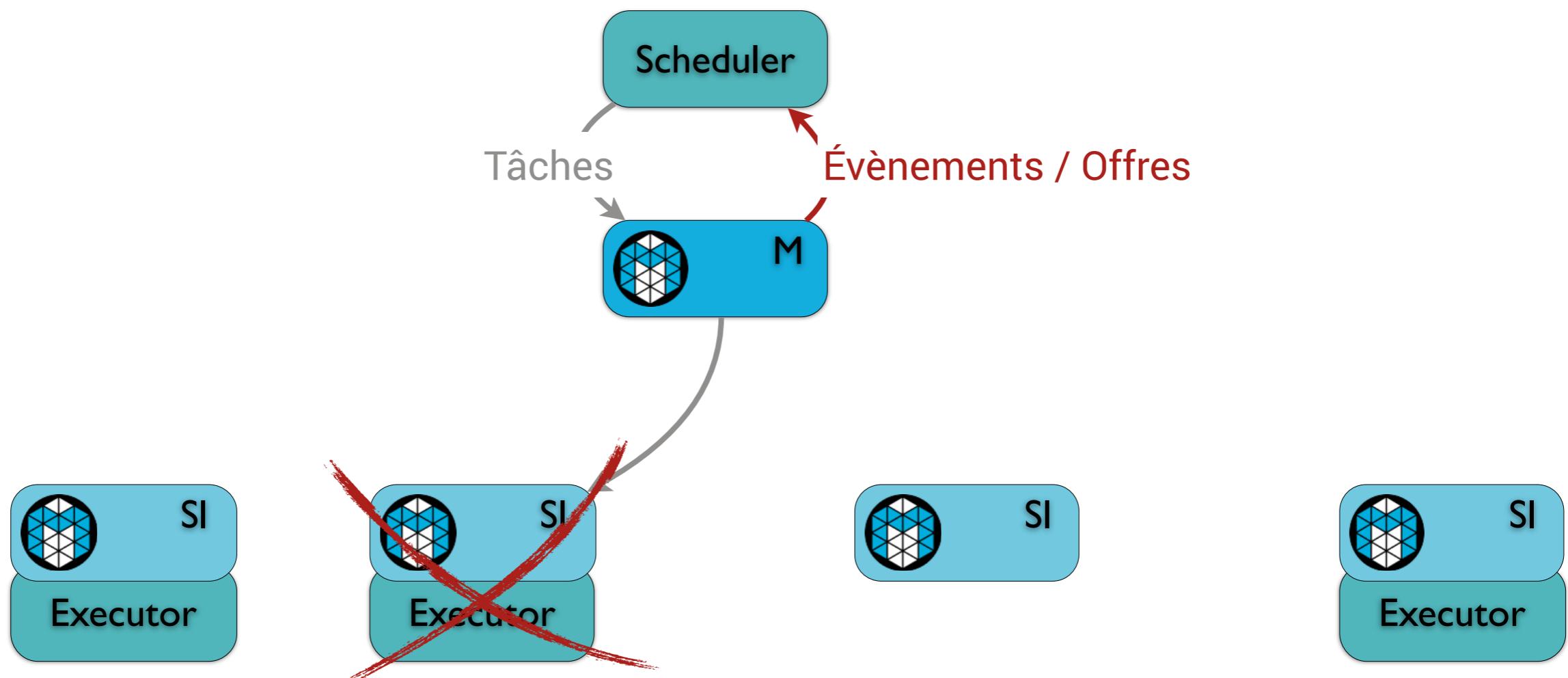
# Monitoring



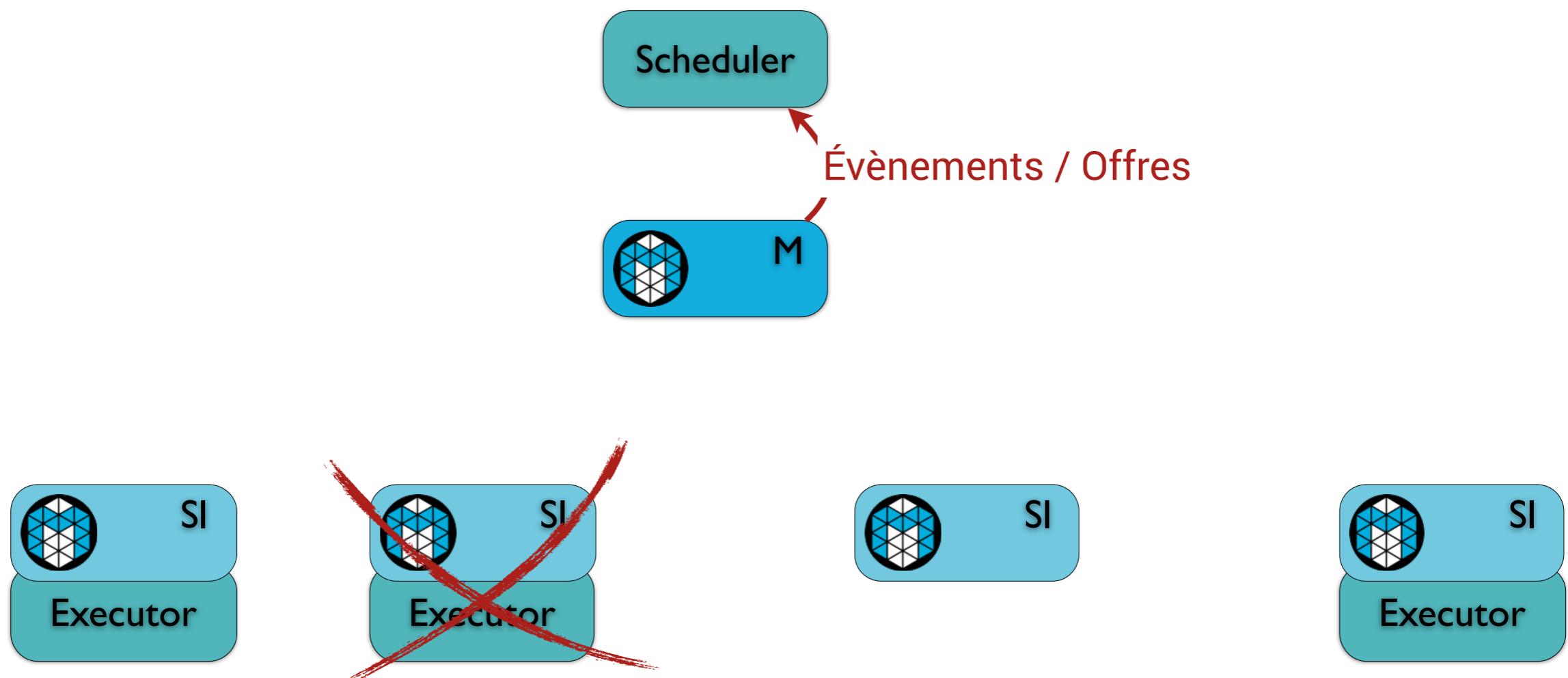
# Monitoring



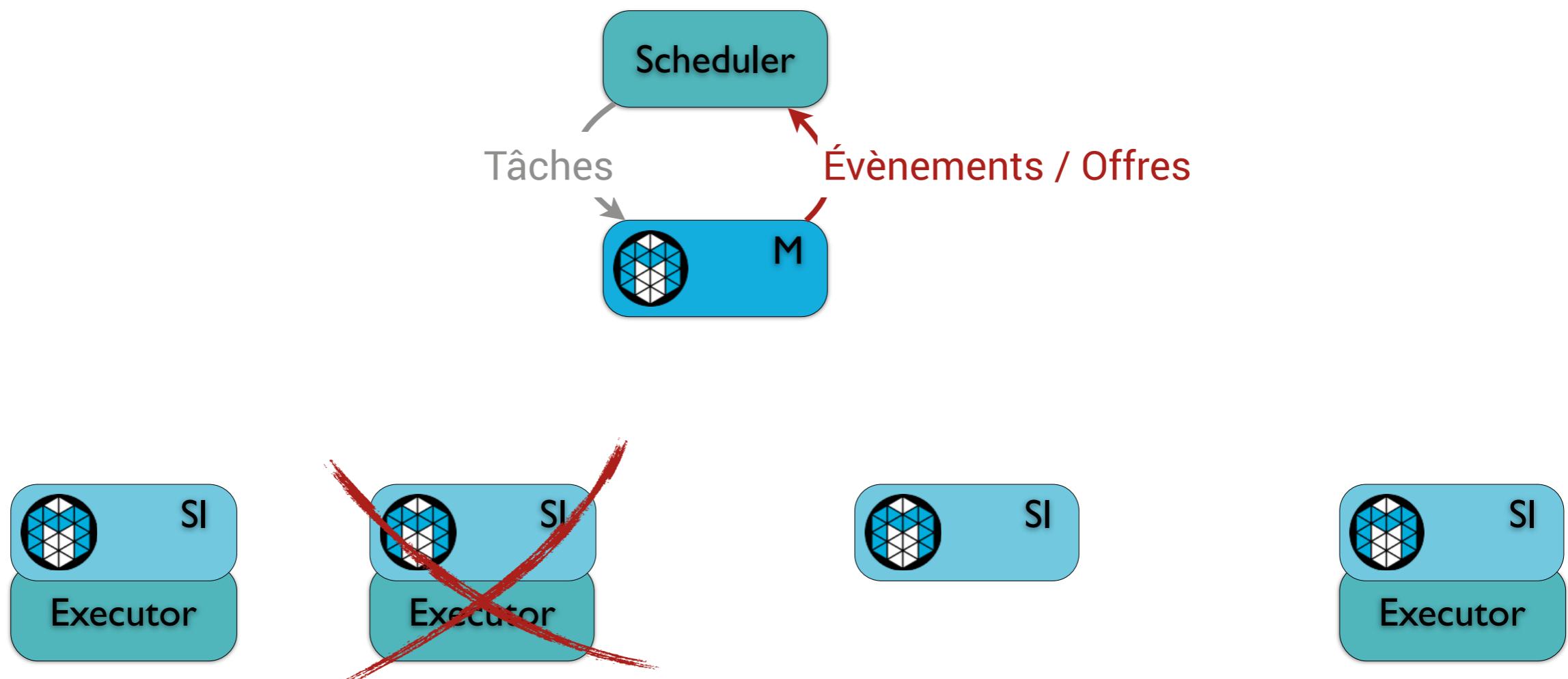
# Monitoring



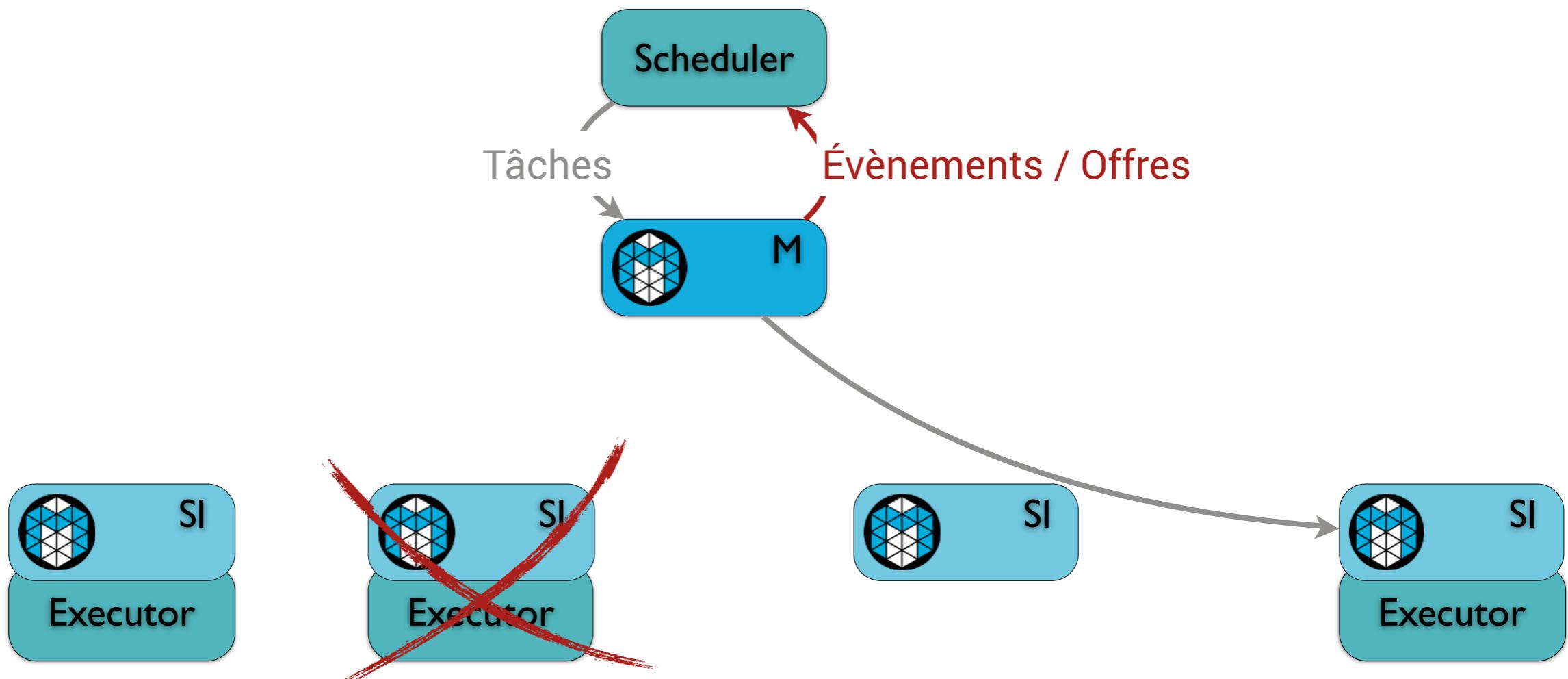
# Monitoring



# Monitoring



# Monitoring





DevOps Borat @DEVOPS\_BORAT · 30 janv. 2013

If shit is never hit fan you are not get enough shit done.



728



215

...

# DevOps tu seras



# C.A.L.M.S



# 1 ou 2 challenges

- Partager
- Monitorer
- Maintenir



# Il y a un dev dans ton Cloud



# Can't stop the bot



# Can't stop the bot





#MesosUniversity

@XebiaFr @YesWeScale

# Go Prod !



Toile de tente  
ou  
parachute ?

# Faiblesses

# Faiblesses

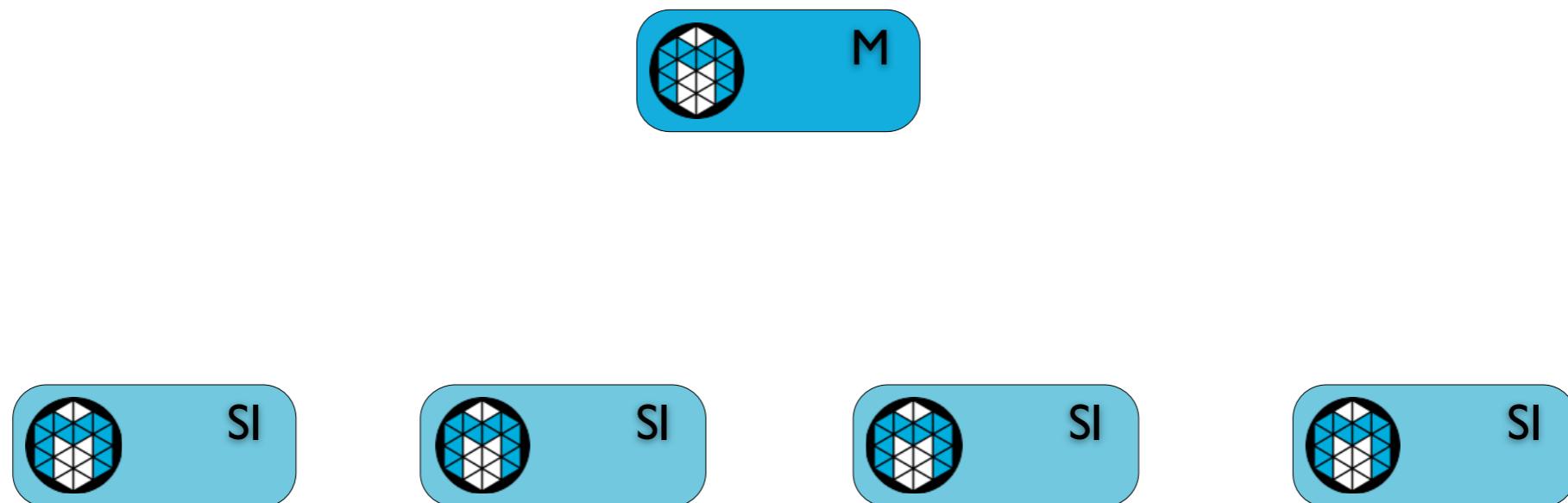
- Mesos master
- Scheduler



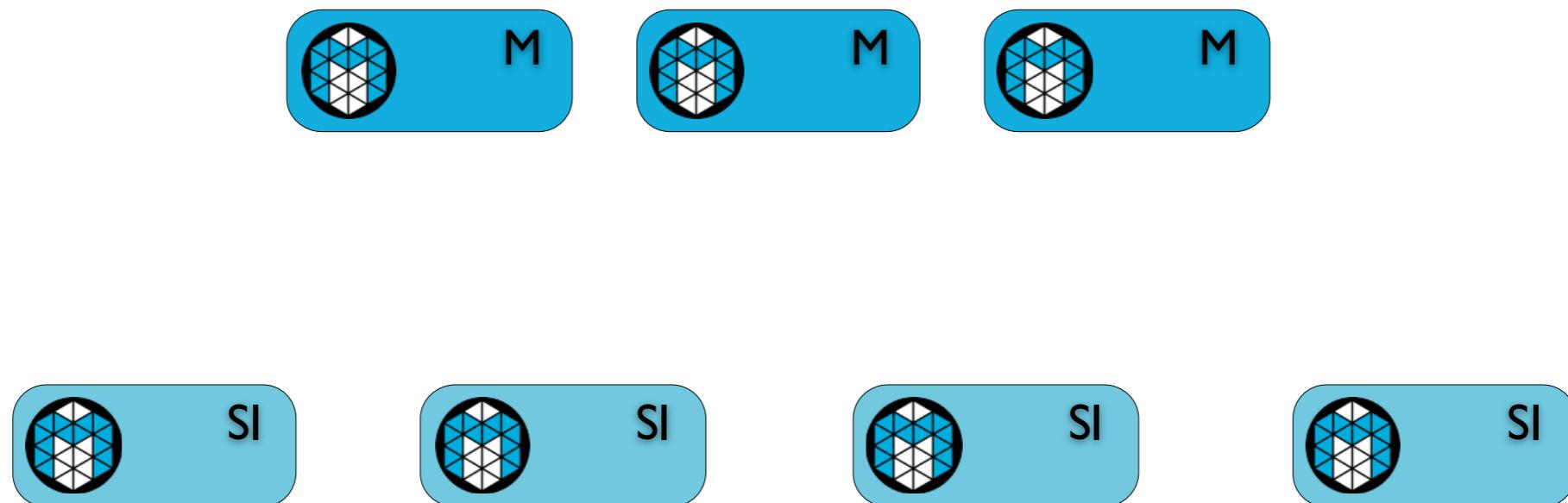
# Single point of truth



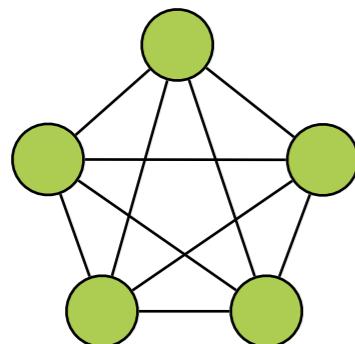
# Architecture pour de vrai



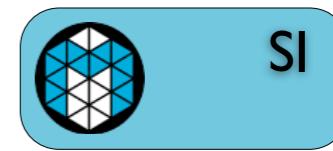
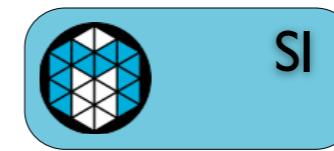
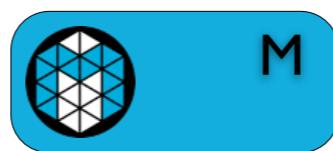
# Architecture pour de vrai



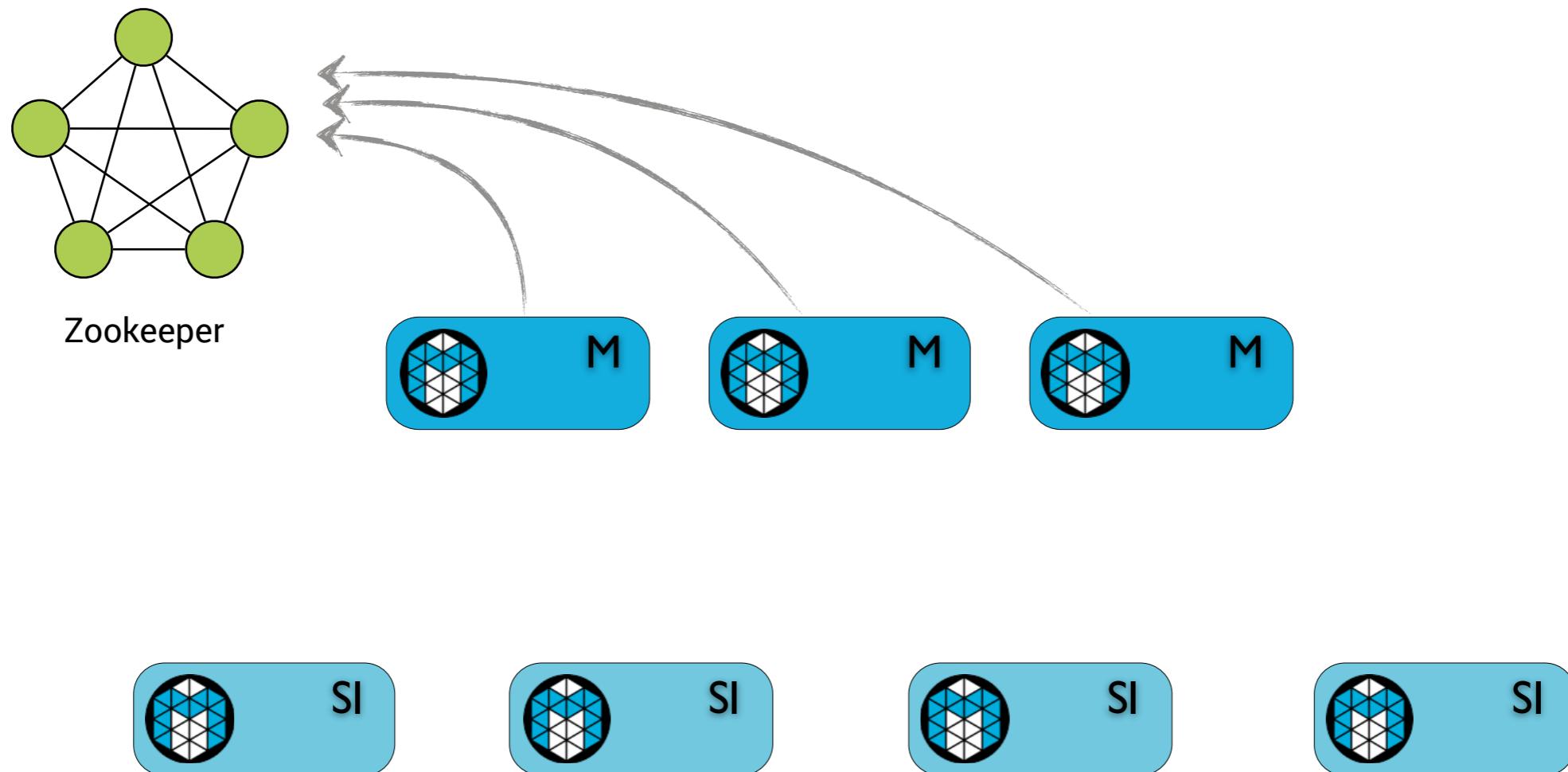
# Architecture pour de vrai



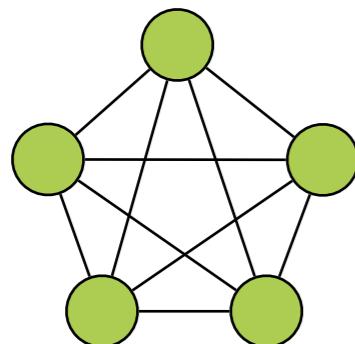
Zookeeper



# Architecture pour de vrai



# Architecture pour de vrai



Zookeeper



M  
aste



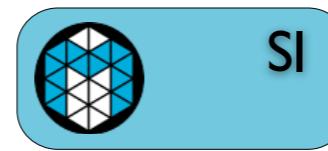
M



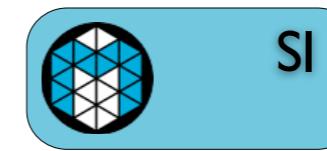
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aste



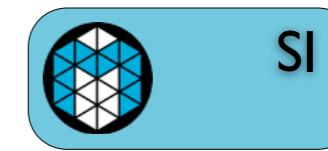
SI



SI

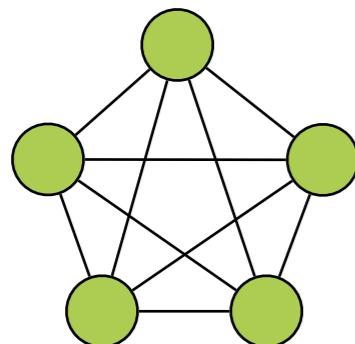


SI



SI

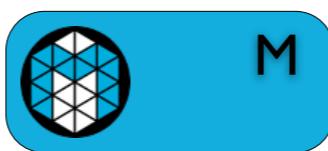
# Architecture pour de vrai



Zookeeper



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aste



M



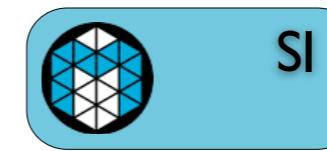
M  
aste



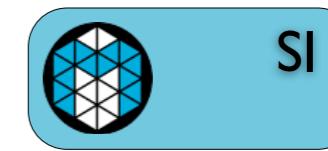
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SI

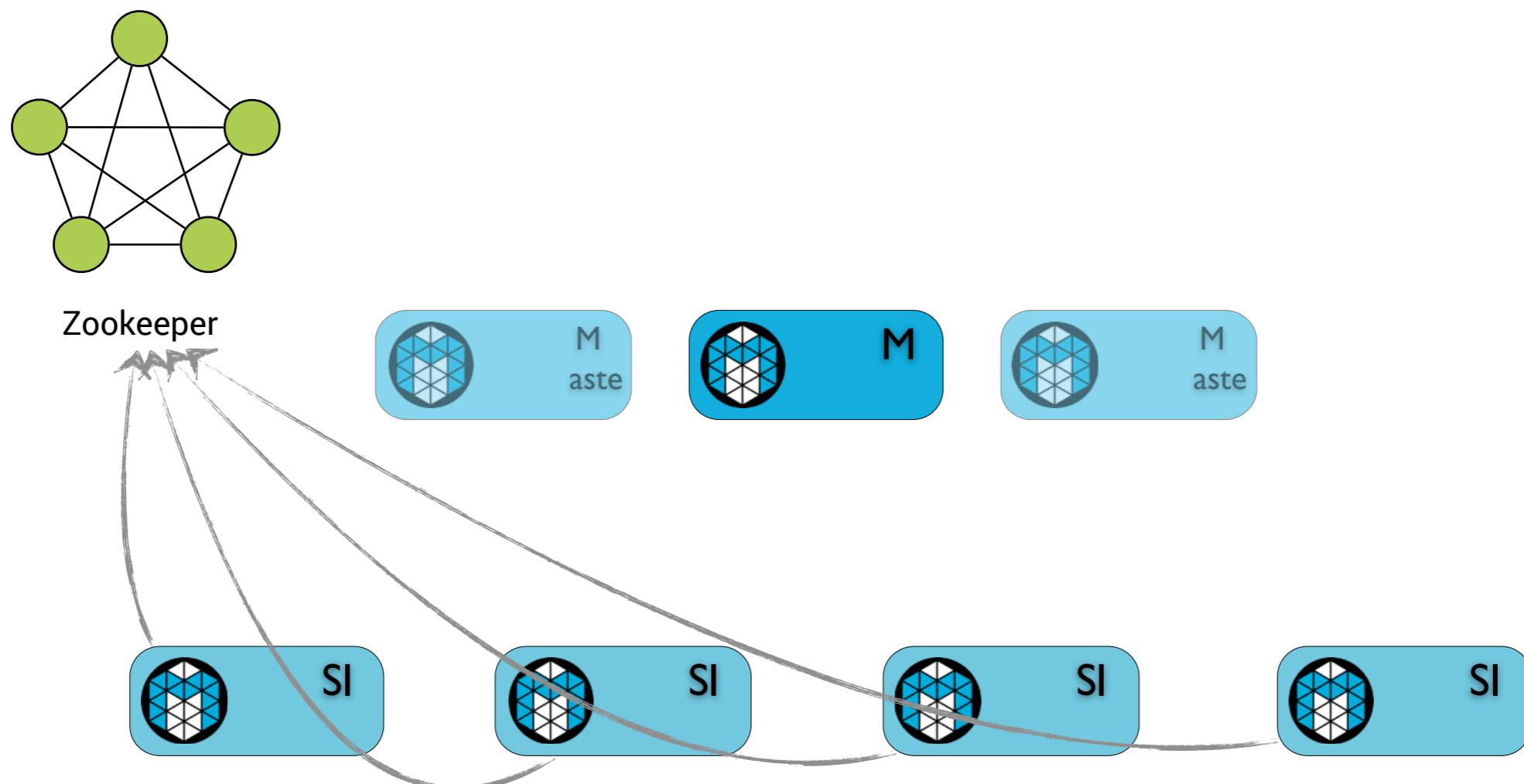


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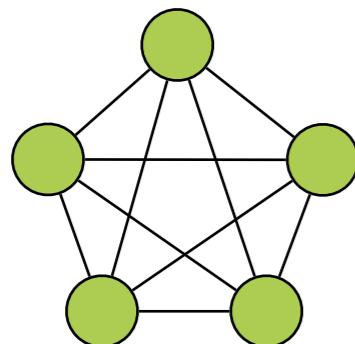


SI

# Architecture pour de vrai



# Architecture pour de vrai



Zookeeper



M  
aste



M



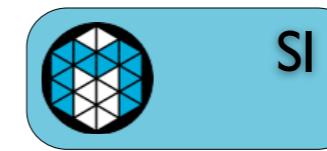
M  
aste



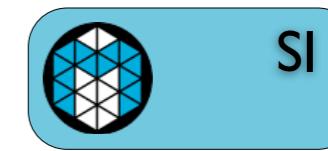
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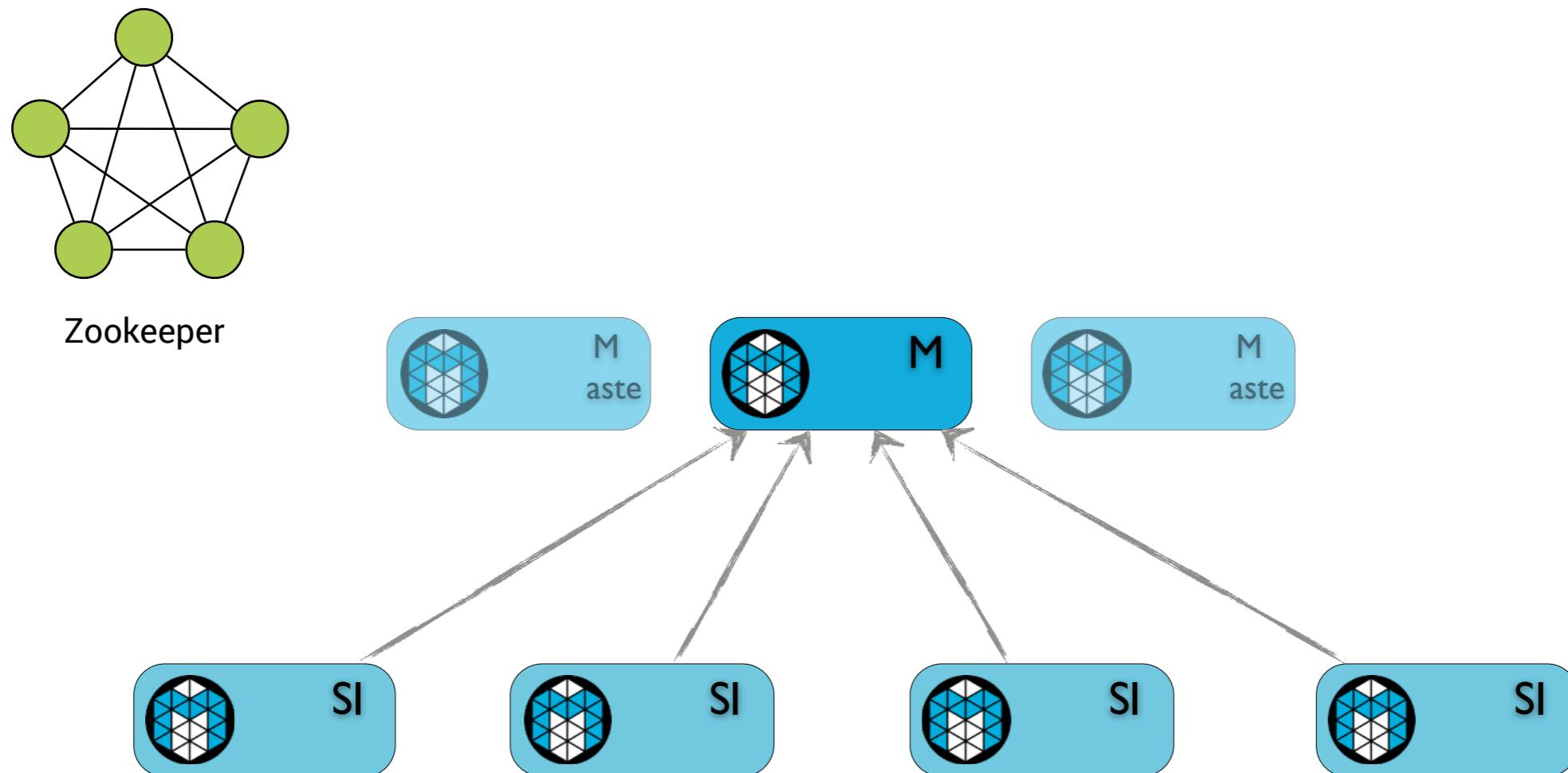


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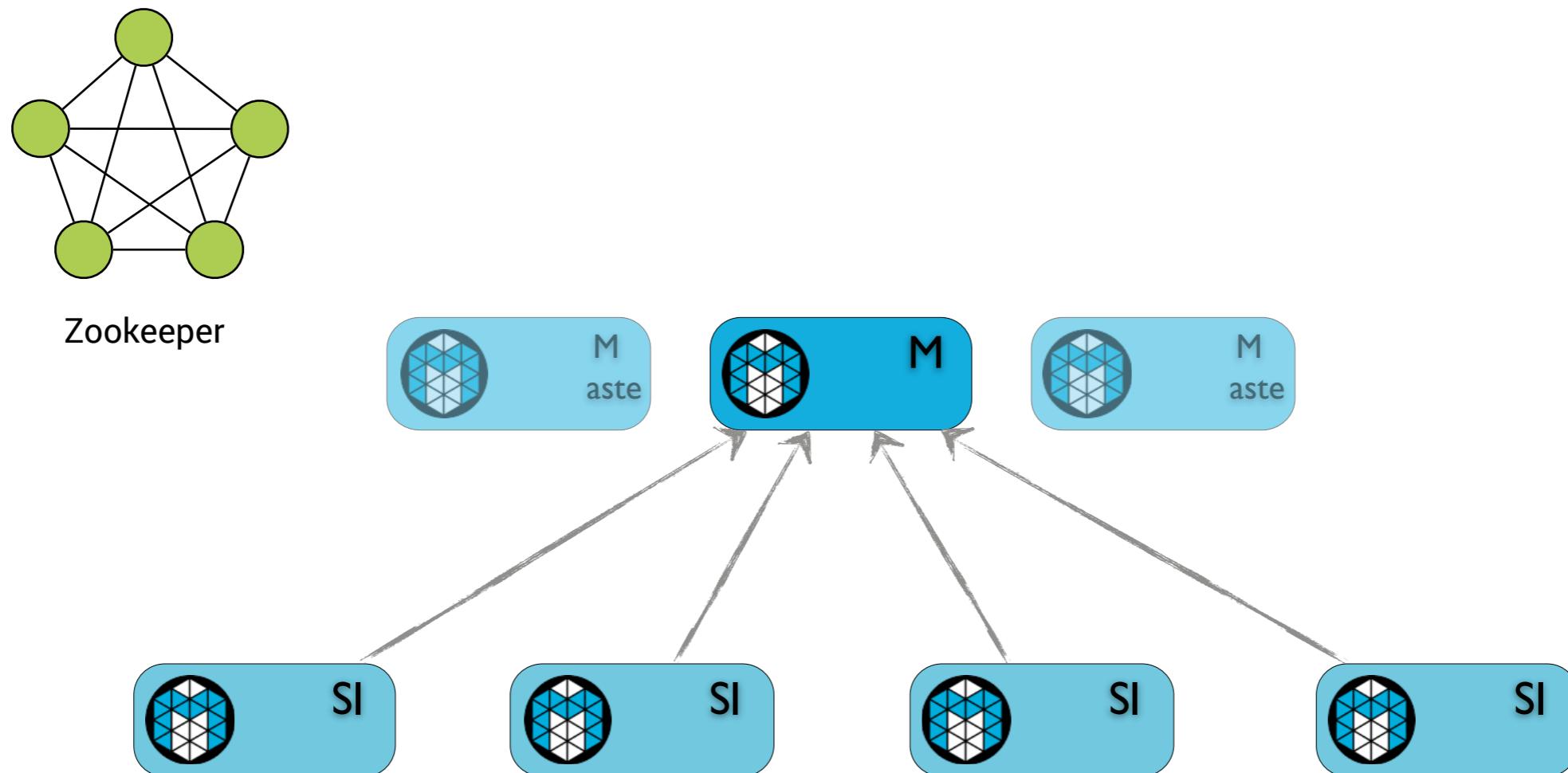


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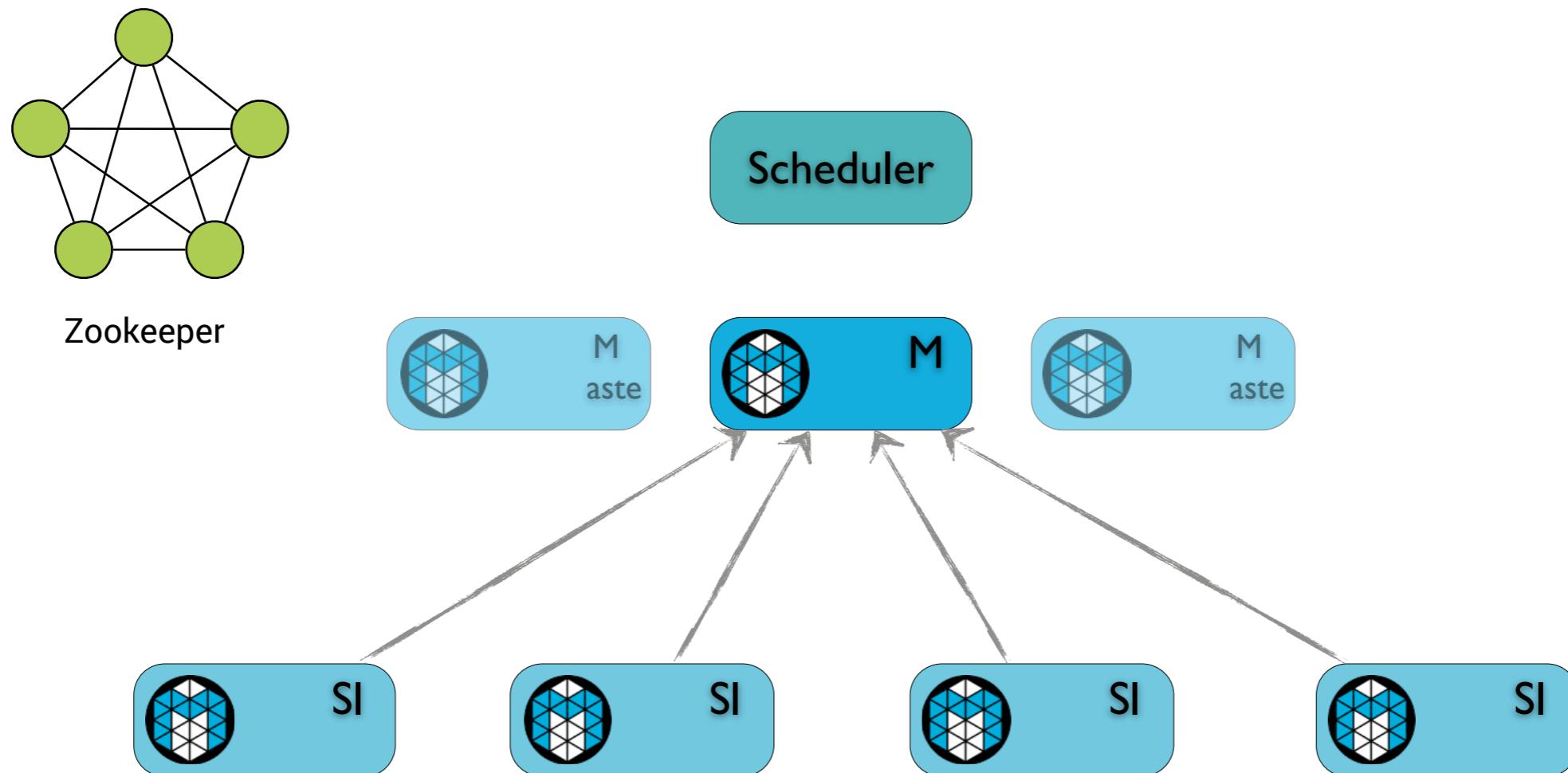
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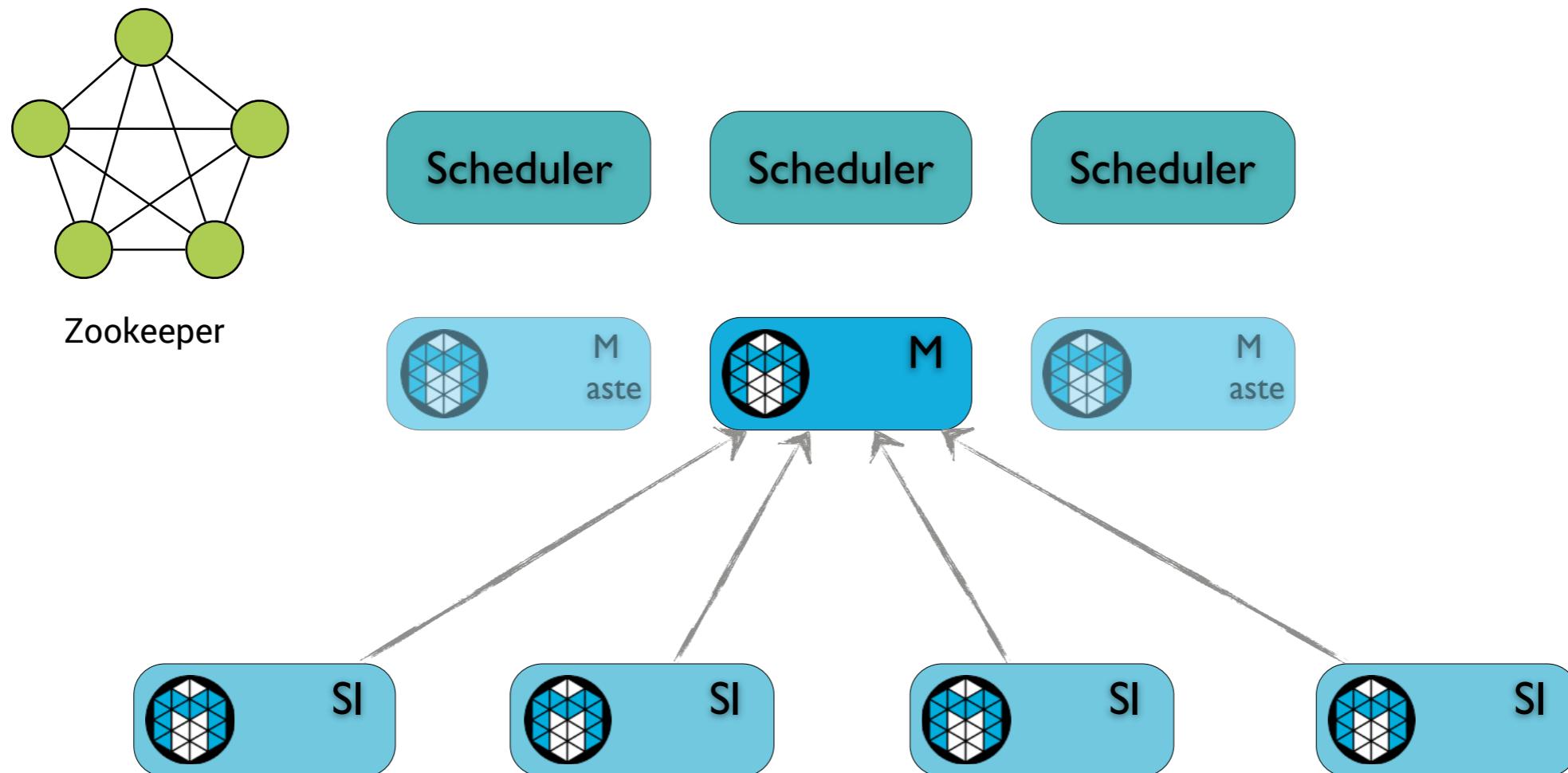
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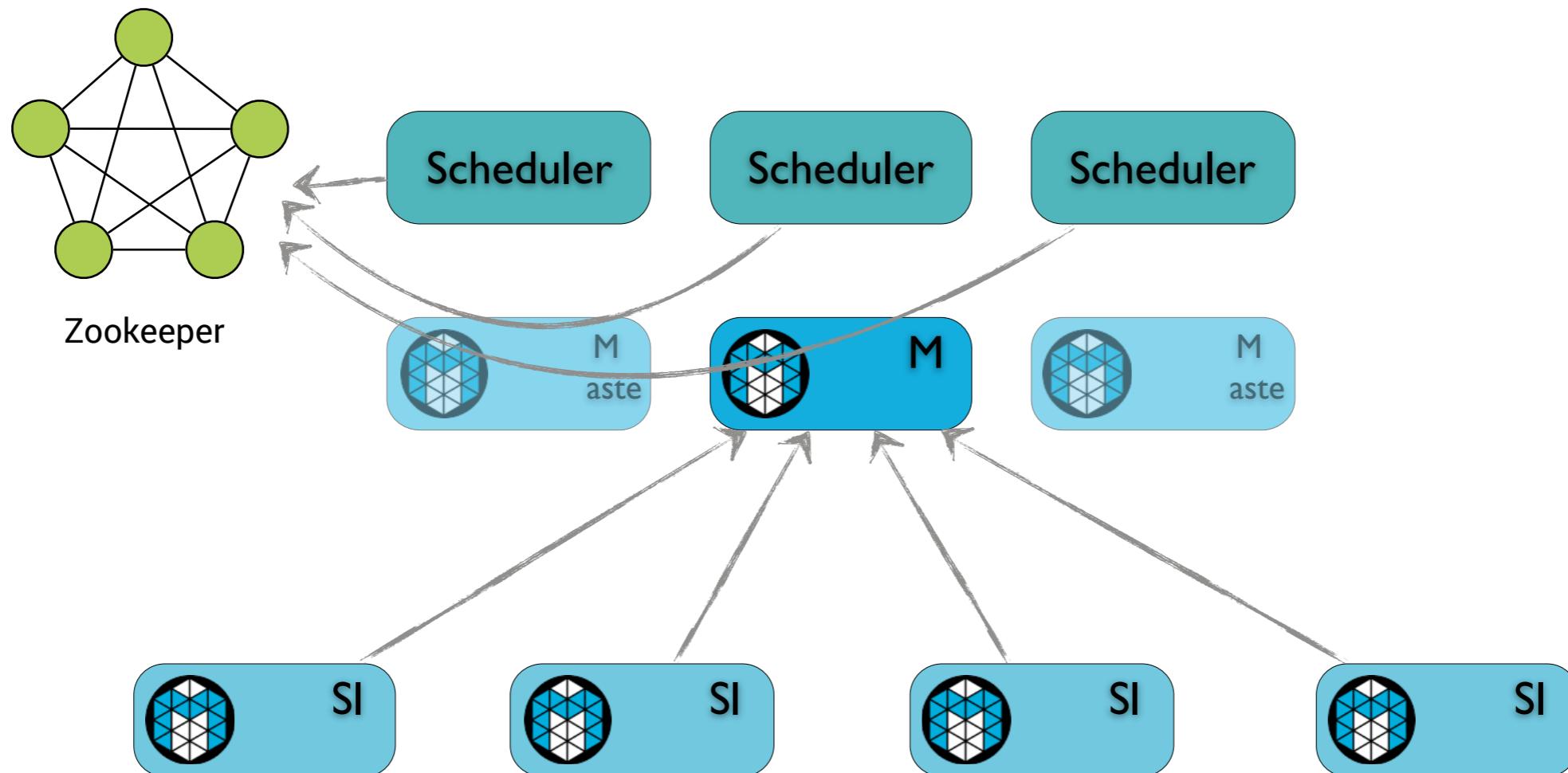
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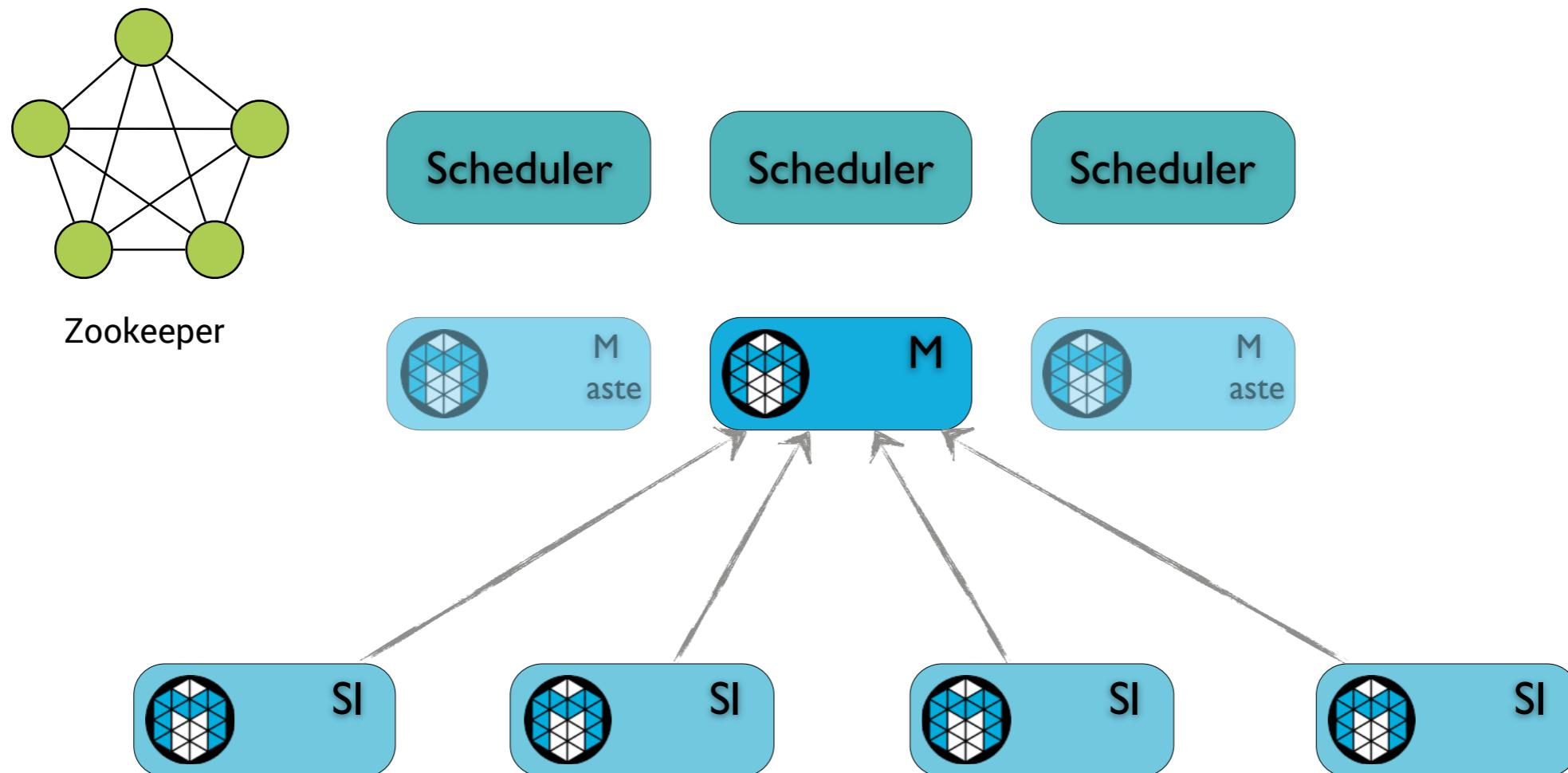
# Architecture pour de vrai



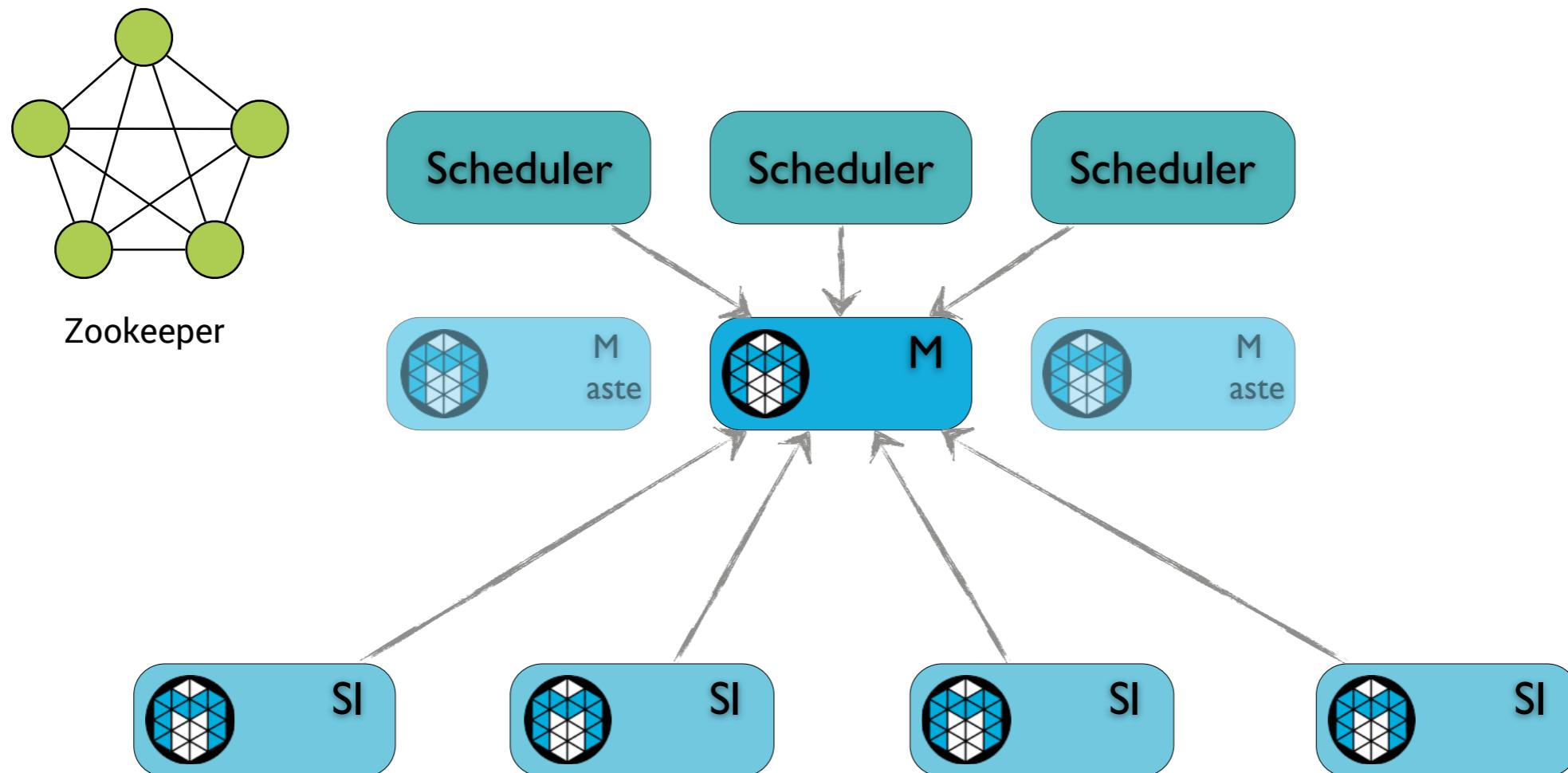
# Architecture pour de vrai



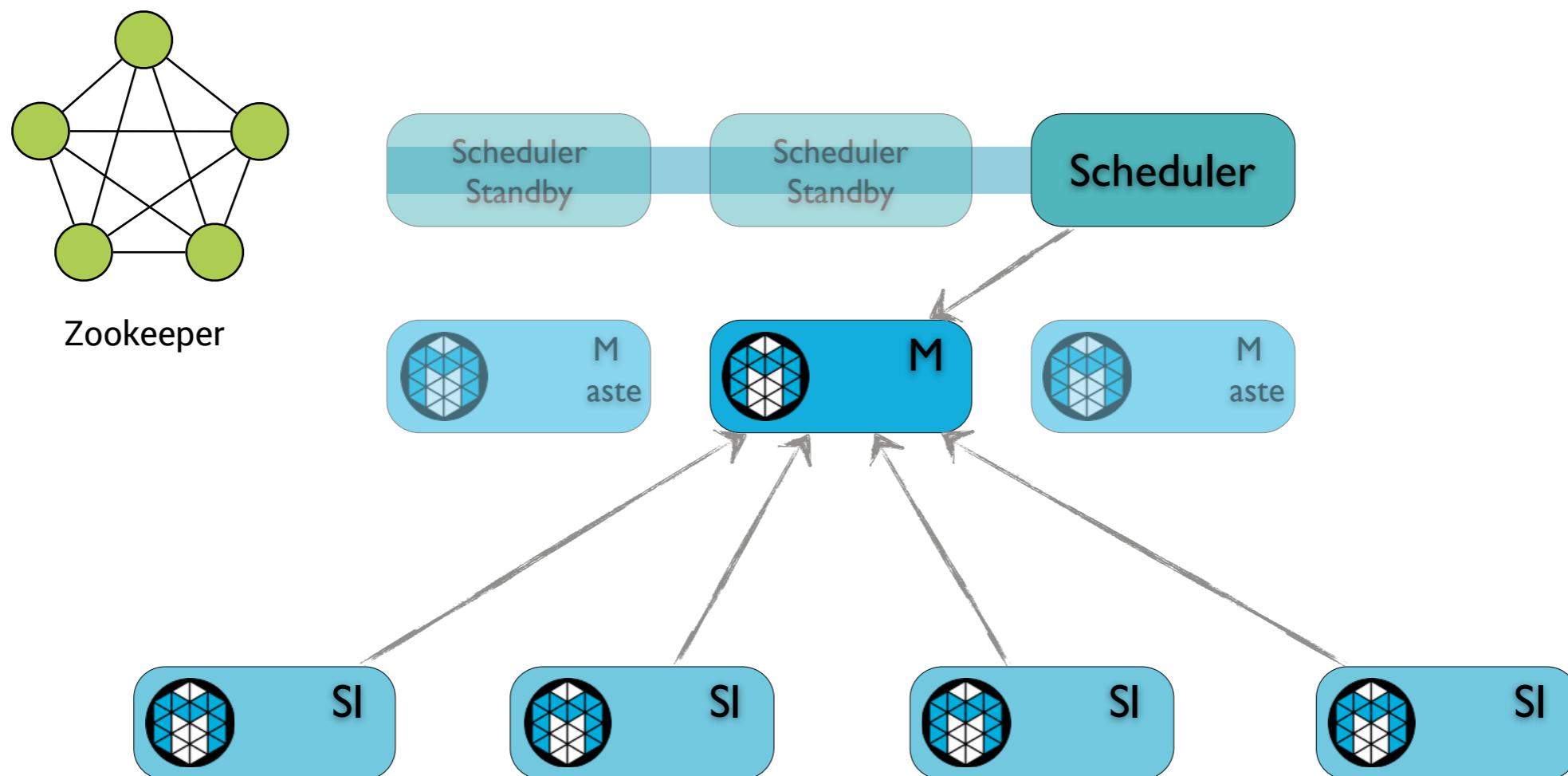
# Architecture pour de vrai



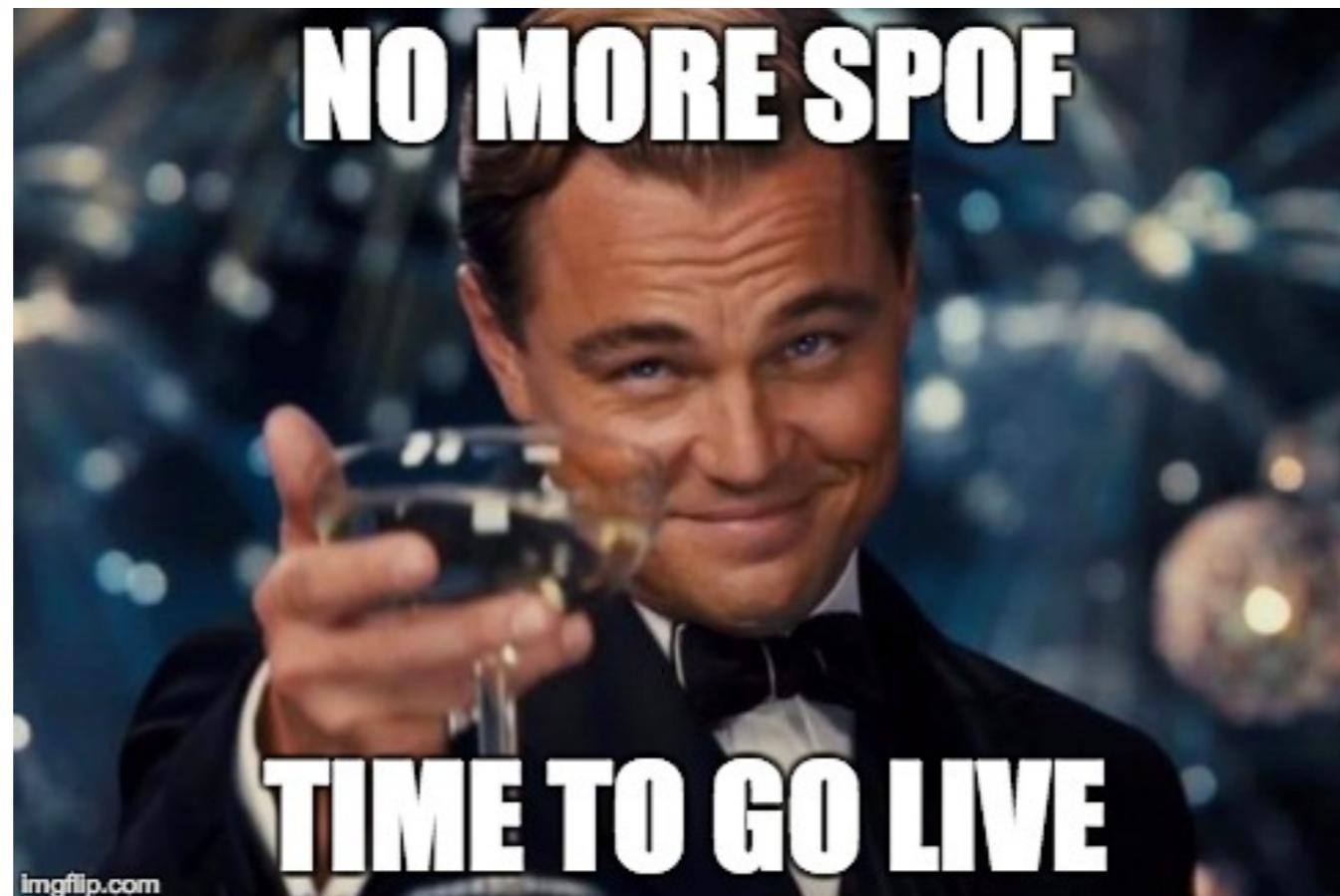
# Architecture pour de vrai



# Architecture pour de vrai



# C'est un GO





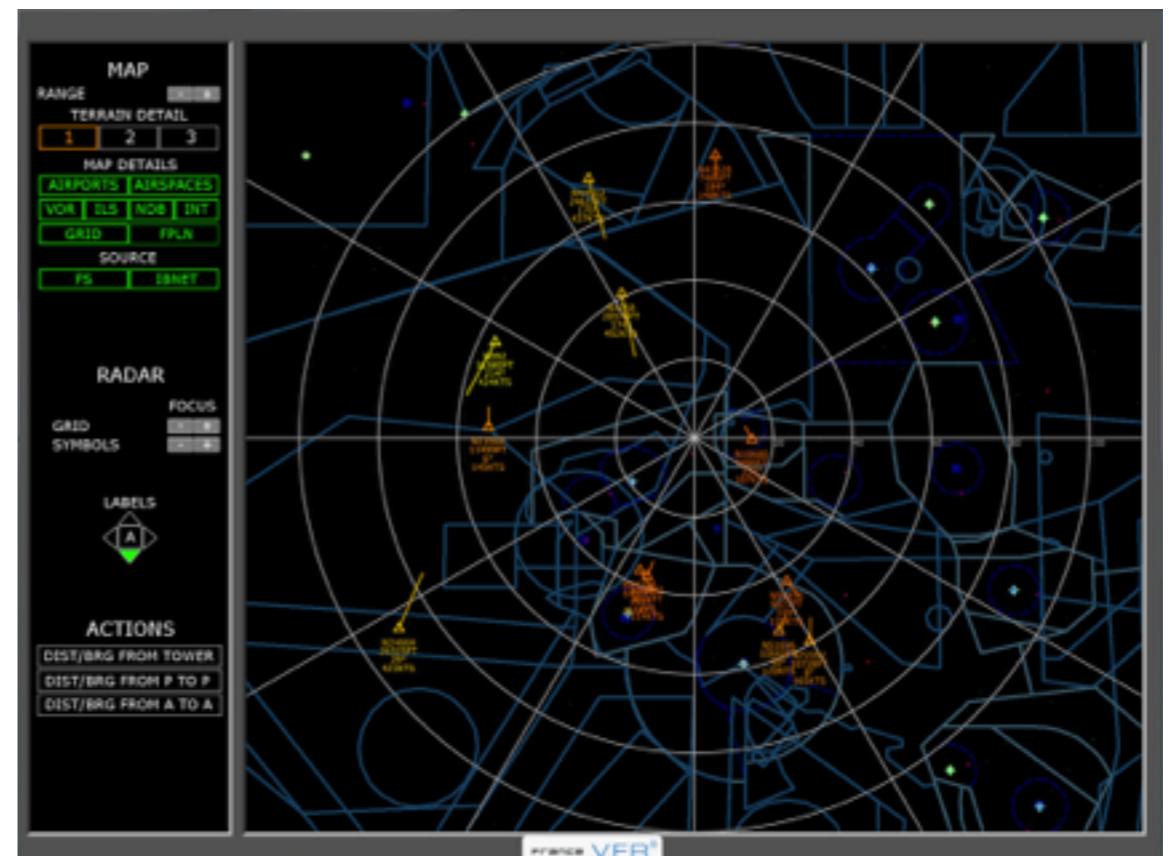
*One more thing...*

# Système de fichier

- HDFS
- Ceph
- ZFS



- DNS
- Load balancing
- Convention de ports



# Logs centralisé





ONE CLUSTER MANAGER TO BRING THEM ALL  
AND IN THE DATACENTERS BIND THEM

# Q & A

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#MesosUniversity

DEVOXX<sup>TM</sup> France

@XebiaFr @YesWeScale