SLURM FOR DUMMIES

slurm workload manager

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"SLURM" (Simple Linux Utility for Resource Management)

Definitions: ✓

- Slurm is an open source cluster management and job scheduling system for large and small Linux clusters
- Slurm requires no kernel modifications for its operation and is relatively self-contained.

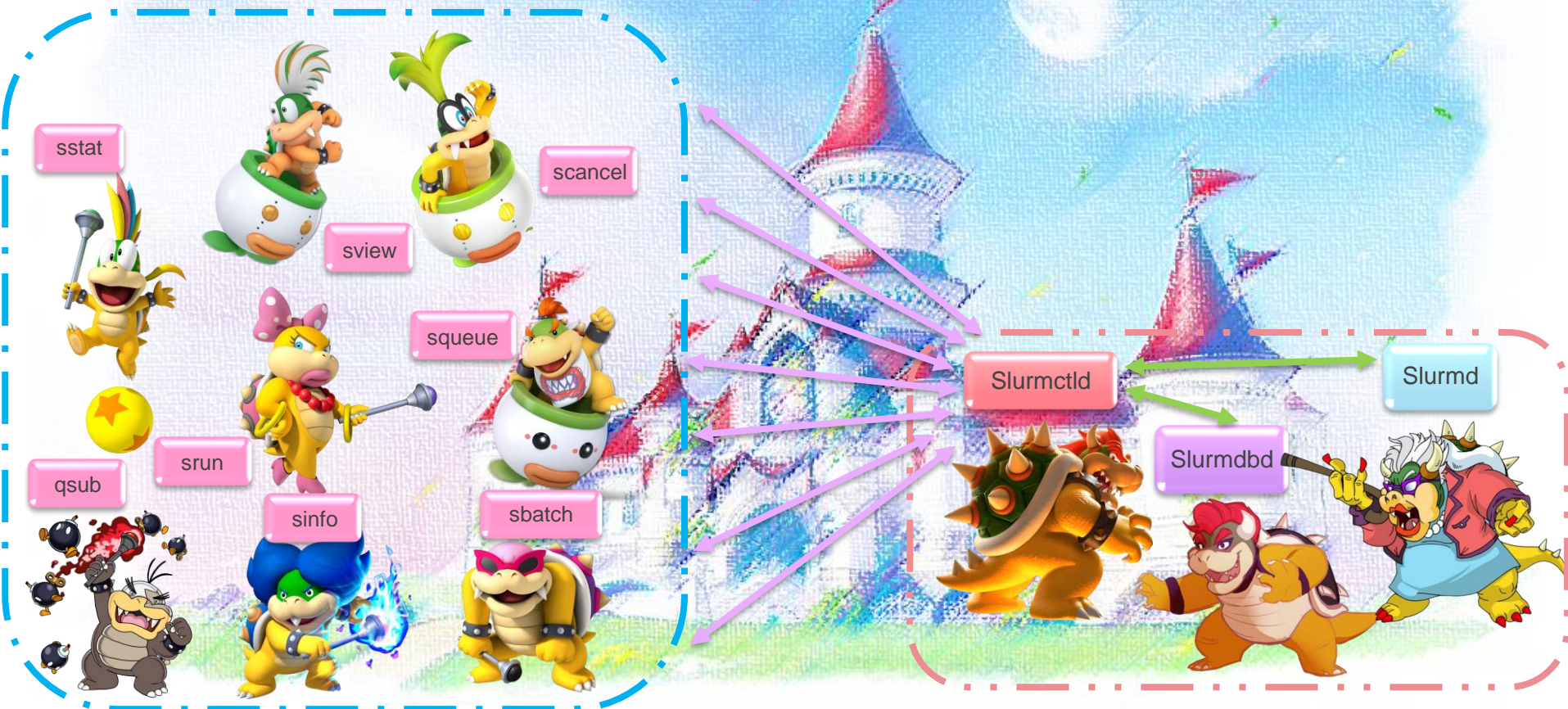| Slurmctld | • Planning and administration of work. |
| slurmdbd | • Storing and recording user information, tasks, permissions. |
| slurmd | • It monitors all tasks running on the compute node, accepts work (tasks), starts tasks, and kills running tasks. |

FIGURA 1. Slurm (drink) series "Futurama". Source: Taken from Google Images

Arquitecture:

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sstat
scancel
sview
squeue
srun
sinfo
qsub
sbatch

Slurmctld
Slurmd
Slurmdbd

Script: ✅

```
#!/bin/bash
#SBATCH -J [jobname]
#SBATCH -t=[HH]:[MM]:[SS]
#SBATCH --mem=[MM][kb/mb/gb/tb]
#SBATCH -p [partitionNAME]
#SBATCH --mail-type=[flags (NONE, BEGIN, END, FAIL, REQUEUE, ALL)]
#SBATCH --mail-user=[user]
#SBATCH -e [rutaArchivo]
#SBATCH -o [rutaArchivo]
#SBATCH -d afterok:job_id[:jobid...]
#SBATCH --export=var1=valor[,var2=valor...]
#SBATCH -N [N]
#SBATCH --tasks-per-node=[cores]
#SBATCH --gres=gpu:[numerodeGPUs]
...
plicacion y distintos pasos definidos por el usuario]
```

Note

❖ To send the jobs to the queue manager so that it is able to know what actions it has to perform, a file is generated specifying both the resources that are required and the actions that the user wishes to execute..

DONKEY KONG
DK

Thank You

THANKS
for
WATCHING

BOWSER