







- Single node (non-MPI)
  - Advised to use HPC systems for MPI jobs
- Good for resource usage
  - → e.g. Use cluster with few GPUs rather that workstations with one each
    - Sounds correct but what's the reality?
- Modules for SW

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- Mentioned a few times by projects.
  - ➤ How's this going?
- Nexus-Posix for shared storage
  - → Or alternatives?

## **CURRENTLY FOR SLURM**



|                                 | Roll your own               | JADE                    | Managed Virtual Cluster*              |
|---------------------------------|-----------------------------|-------------------------|---------------------------------------|
| Control. Software, slurm config | Very High                   | High                    | Low (Robin clone,<br>basically)       |
| Size                            | Small-Medium                | Small-Medium            | Medium-large                          |
| Elasticity - grow/shrink        | High                        | High                    | Low                                   |
| Storage                         | ?? it depends               | Nexus-Posix             | Nexus-Posix                           |
| User basis                      | Free (depending on storage) | MPCDF LDAP              | MPCDF LDAP                            |
|                                 |                             |                         | • • • • • • • • • • • • • • • • • • • |
|                                 |                             |                         | • • • • • • • • • • • • • • • • • • • |
| * Managed virtual c             | lusters provided by cluster | team on demand and when | fitting.                              |

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- Feedback and wishes for JADE
- Feedback about vanilla deployment
- : Usage of Terraform / Cloud-init as main deployment tools
- Jade 0.2 (working on)
  - Heterogeneous clusters
  - Bake more sw into base images and configure with cloud-init
    - Less magic in cloud init
  - Wishes?

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- Any other cluster(like) solutions being built?
- Batch clusters
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- : Spark
- Hadoop (old school)
- ° Presto
- K8s already discussed
  - But anyone considering building clusters inside K8s?
    - Turtles all the way down?

## If yes to any of the above how are you doing this

- → Automated (terraform, HEAT...)
- By hand

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