



Machine/Job Features Update

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Status

- Deployment of the server side info and “mjf” package done for CERN batch worker nodes
 - slc5 (bare metal)
 - slc6 (openstack)
- Invite experiments to start using it and give feedback **by end of February**
- Problem: concerns about overloading the openstack meta-service when communicating features via “magic IP”
 - Need to look into alternative possible solutions (simple as a key/value store with web service?)

Info on mjf.py

- Source code repository

<https://github.com/roiser/JobMachineFeatures>

- Code documentation (linked from mjf twiki)

<https://twiki.cern.ch/twiki/bin/view/LCG/MjfDataStructureAndInterface>

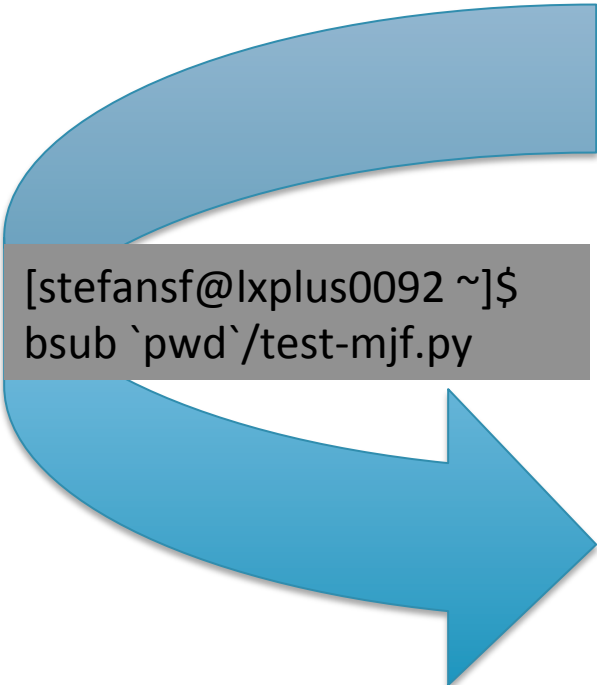
- Distribution via RPM from WLCG repo

<http://linuxsoft.cern.ch/wlcg/>

- Distribution via AA releases (coming soon)

<afs/cern.ch/sw/lcg/external/Grid/mjf>

mjf.py example



```
[stefansf@lxplus0092 ~]$  
bsub `pwd`/test-mjf.py
```

```
#!/usr/bin/env python
```

```
test-mjf.py
```

```
from mjf import mjf,MJFException  
  
m = mjf()  
try :  
    m.collect()  
    print m.features()  
except MJFException, e: print e
```

```
[...] LSF/STDOUT  
{'machinefeatures': {'hs06':  
76.1050000000000004, 'jobslots': 6,  
'log_cores': 4, 'phys_cores': 4},  
'jobfeatures': {'disk_limit_GB': 0,  
'wall_limit_secs': 885.51343538532296,  
'cpufactor_lrms': 2.4392628205128202,  
'cpu_limit_secs': 196.78076341896099,  
'cpu_limit_secs_lrms': 480,  
'allocated_CPU': 1, 'mem_limit_MB':  
4000000, 'wall_limit_secs_lrms': 2160,  
'jobstart_secs': 1390213188}}  
[...]
```

Next steps

- Deployment for CERN cloud infrastructure
- Deployment of mjf as command line tool @ CERN
- Upload of different server side tools into the github repository (SGE, Condor, ...)
- Development of a key/value store for IaaS
- Check bi-directional communication as suggested by Igor Sfiligoi for Condor
- Look into deployment at other IaaS systems than OpenStack
- After experiment feedback has been received start deployment on more “early adopter” sites
- Start with rollout at all sites