

# Moab

## Why does Moab provision every compute node in a multi-req request?

### Question:

Why does Moab provision every compute node in a multi-req request?

### Solution:

Moab supports advanced multi-req resource requests within the same job using the msub/qsub "-L" syntax. For Cray KNL systems, the Moab SCHEDCFG flag "ProvisionFirstReqOnly" lets you specify that Moab should re-provision the compute nodes allocated only to the first resource request in a multiple-resource-request or "multi-req" job instead of all compute nodes.

```
SCHEDCFG[] FLAGS=ProvisionFirstReqOnly
```

This parameter is best used with the KNL solution provided in the tools/cray/knl folder. The use case for this would be if you have a heterogeneous system with both Haswell and KNL (Knights Landing) processors. You would specify the KNL configuration first and use the "ProvisionFirstReqOnly" otherwise the job will hang as Haswell systems will never be provisioned.

<http://documentation.ac/marconi/9.0.2/suite/help.htm#topics/moabWorkloadManager/topics/appendices/schedcfgflags.html?Highlight=ProvisionFirstReqOnly>

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