

# FutureGrid Experiments

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## Resources

Bravo cluster - 8 nodes, 8 cores each, 192GB RAM, 10G IB  
Run 4 to 8 VMs per node

India cluster - 128 nodes. Can run Eucalyptus.

## Stampede/Pegasus VM's on India FG Cluster

India cluster - 128 nodes. Can run Eucalyptus.

## Relevant FutureGrid Links

[Getting Started with FutureGrid and Applying for Accounts - FutureGrid](#)

[Saving an Eucalyptus VM - http://www.isi.edu/~voeckler/braindump/eucaos-save-active-vm.html](http://www.isi.edu/~voeckler/braindump/eucaos-save-active-vm.html)

[Creating a movable Stampede VM - http://www.isi.edu/~voeckler/braindump/centos-create-movable-virtual-machine.html](http://www.isi.edu/~voeckler/braindump/centos-create-movable-virtual-machine.html)

## Stampede VM's on India

The stampede VM's are configured to talk to each other. There is a manual step of updating a condor config file on obelix that the worker node vm's pull when start up. This way they know how to what submit host VM to talk to .

The condor config file is hosted at

<http://obelix.isi.edu/stampede-workflows/futuregrid/condor-reconfig.sh>

## Submit Host VM

### submit host vm

```
$ euca-describe-images | grep stampede/pegasus-sh  
IMAGE emi-C18E103B stampede/pegasus-sh.x64.manifest.xml vahi available public x86_64 machine eki-78EF12D2 eri-  
5BB61255 instance-store
```

## Description

1. Condor 7.6.6 installed and configured to run as submit host
2. Pegasus 4.0.0-cvs installed
3. Latest Periodograms Code installed in /usr/local/periodograms
4. stampede montage bundle in /home/tutorial/stampede-montage-fg-021512.tgz

#### launch submit host vm

```
$ euca-run-instances -k userkey -n 1 emi-C18E103B -t c1.medium
```

### Worker Node VM

#### worker nodes vm

```
$ euca-describe-images | grep stampede/pegasus-sh  
IMAGE emi-186911ED stampede/pegasus-worker.x64.manifest.xml vahi available public x86_64 machine eki-78EF12D2  
eri-5BB61255 instance-store
```

### Description

1. Condor 7.6.6 installed and configured to run as worker node
2. Pegasus 4.0.0-cvs as a worker install.
3. Latest Periodograms Code installed in /usr/local/periodograms

#### launch submit host vm

```
$ euca-run-instances -k userkey -n 1 emi-186911ED -t c1.medium
```

### Sample Steps to start the Stampede VM's

#### sample steps

```
Step 1  
$ euca-run-instances -k userkey -n 1 emi-CXXXXXX -t c1.medium  
# wait for the VM to start
```