Ganeti Web Interfaces

Network Startup Resource Center

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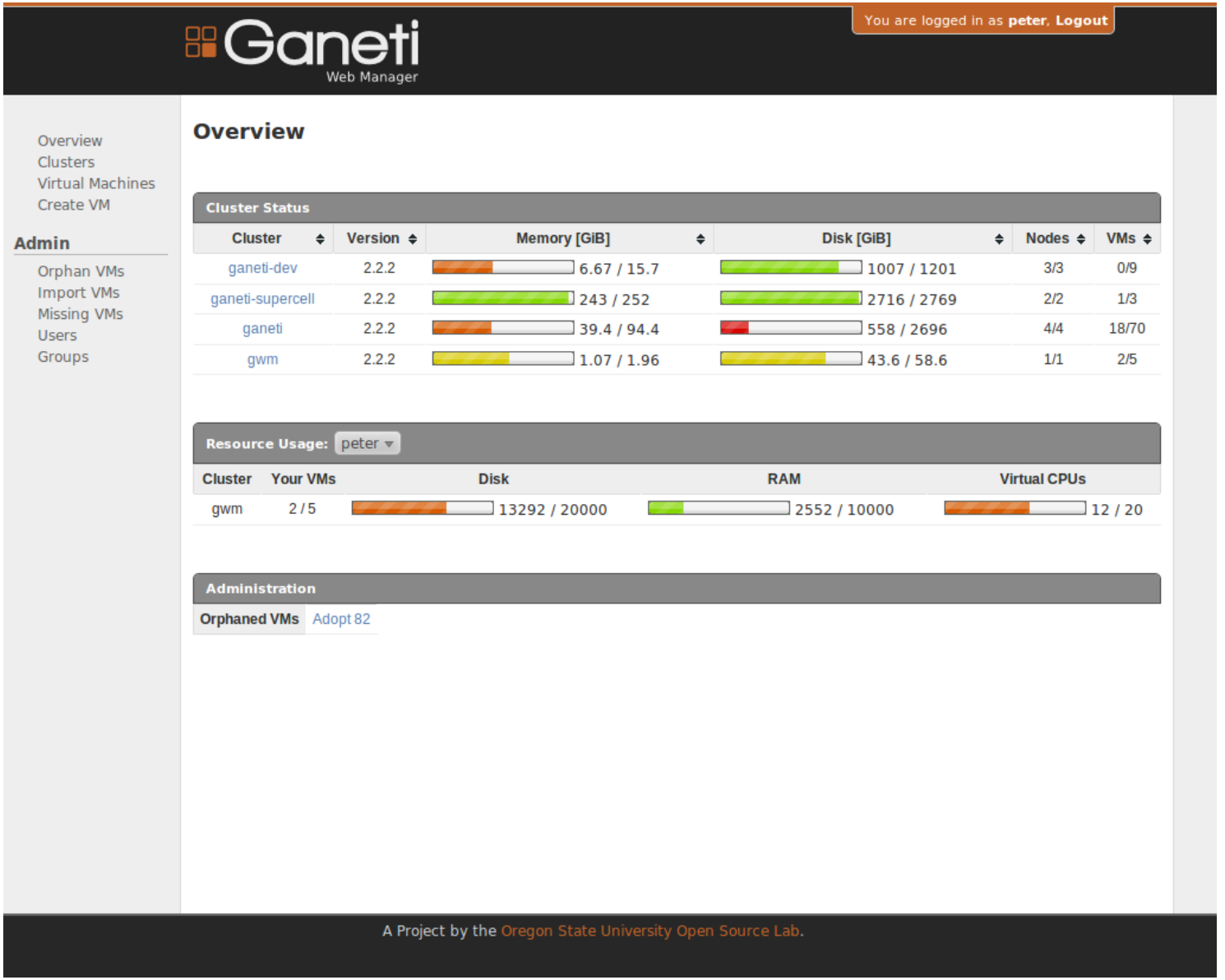
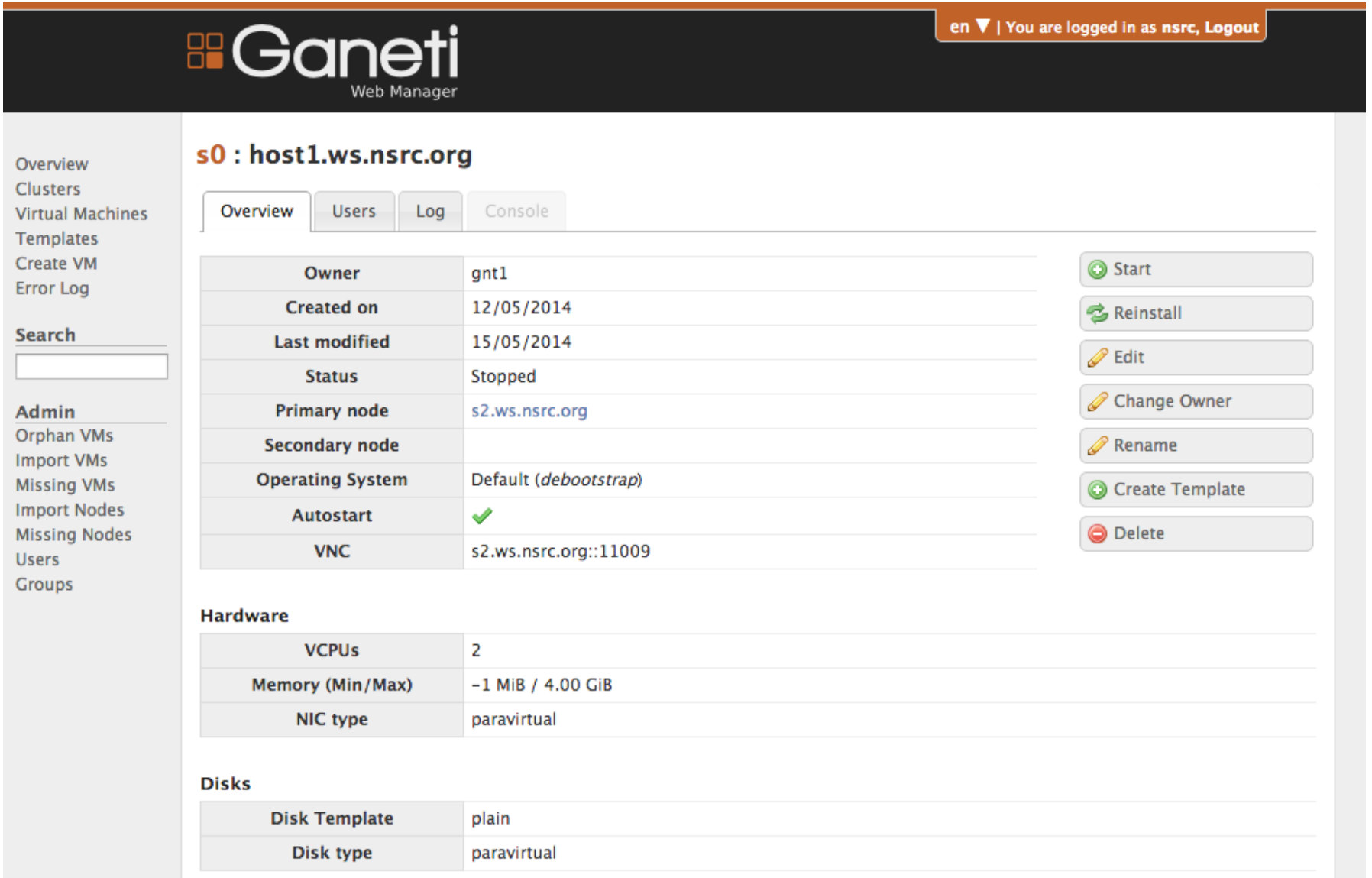
Web interfaces

- The Ganeti RAPI (Remote API) allows other systems to interface into Ganeti
- There are two standalone web front-ends available
  - **Ganeti Web Manager** (OSU OSL: *Oregon State University Open Source Labs*)
  - **Ganeti Manager** (GRNET NOC: *Greek Academic, Research and Education Network NOC*)
- Both are Python/Django applications
  - aka “non-trivial installations”
- Both projects are active as of May 2015

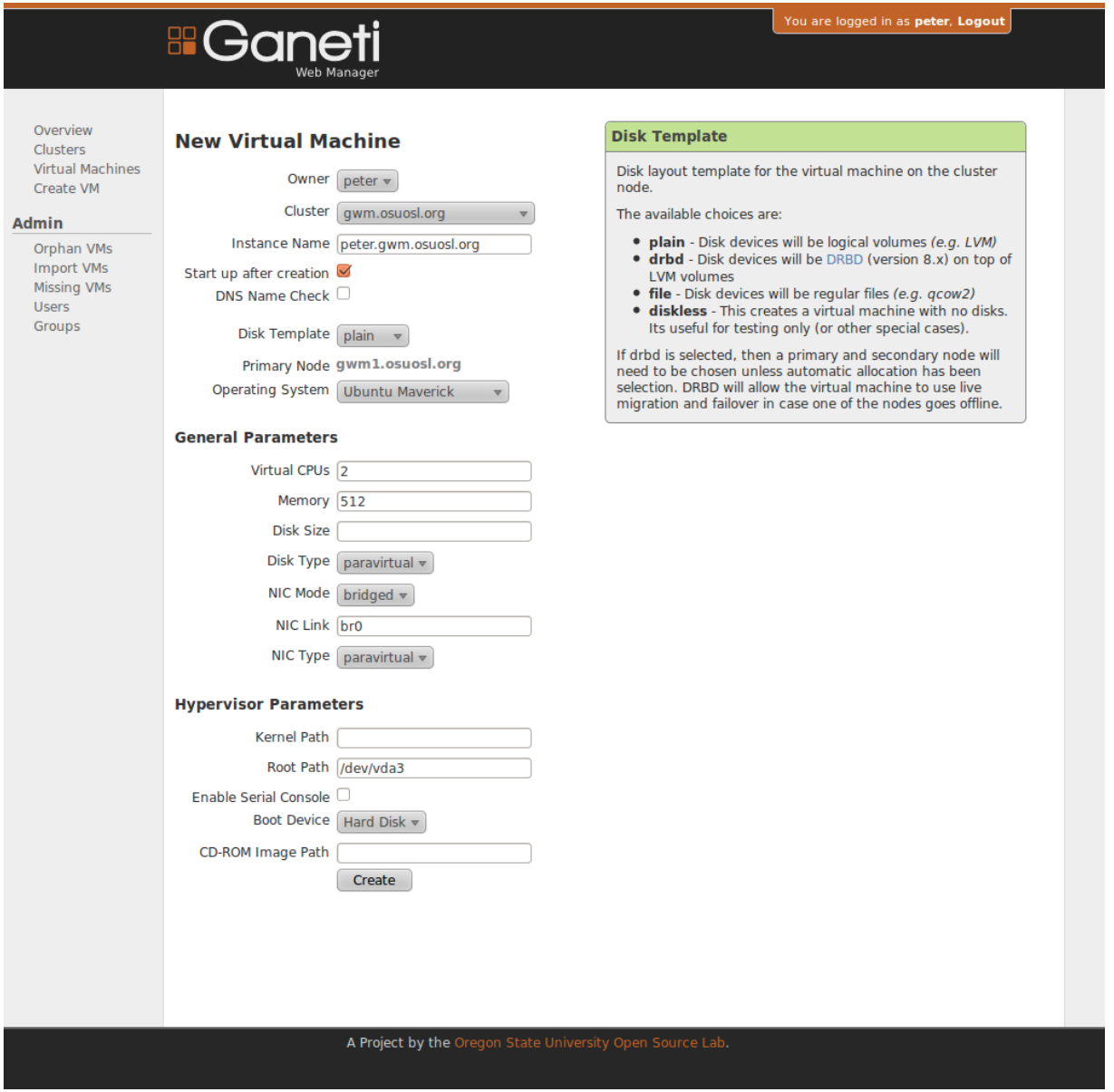
GWM: Dashboard



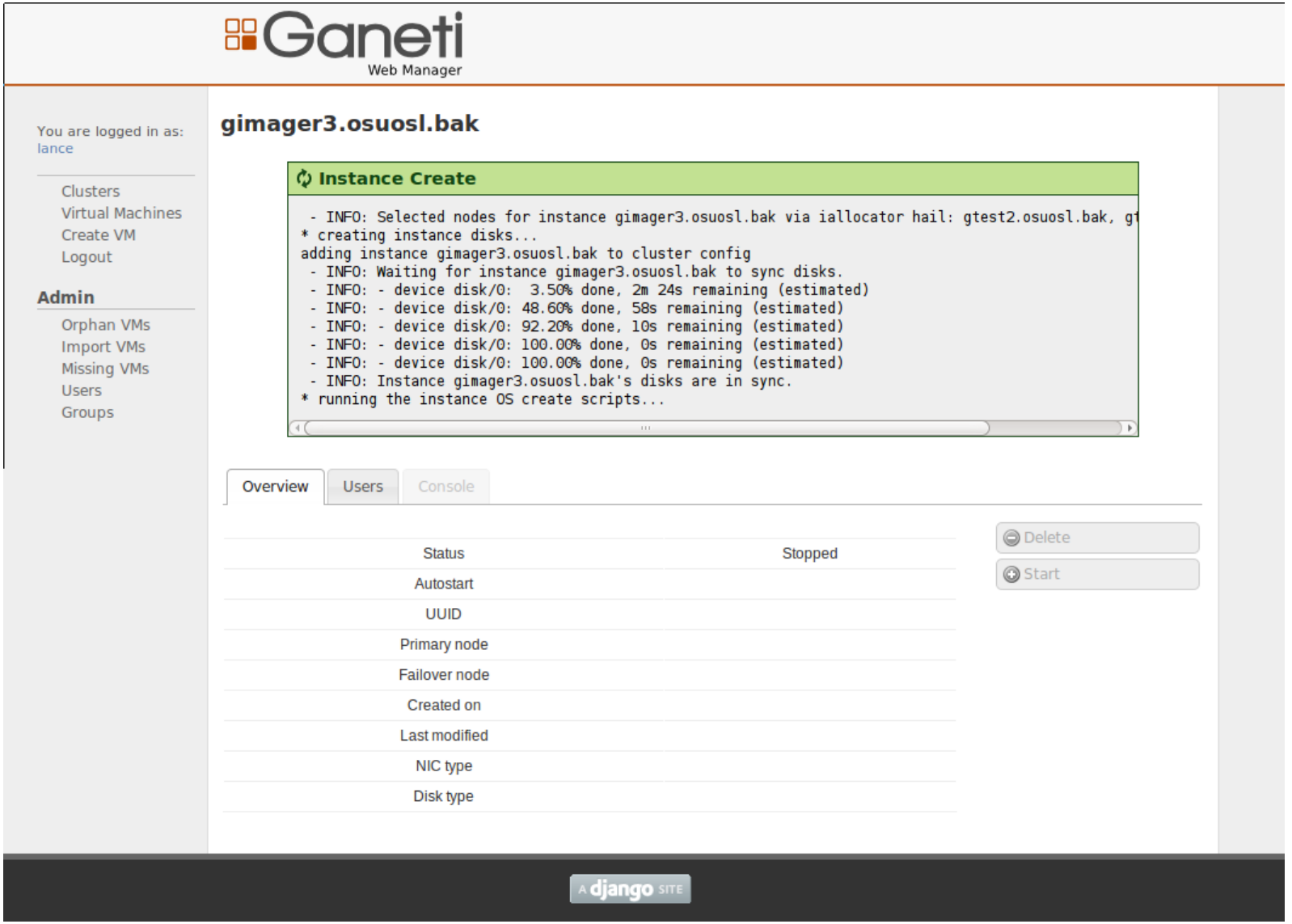
GWM: Instance details



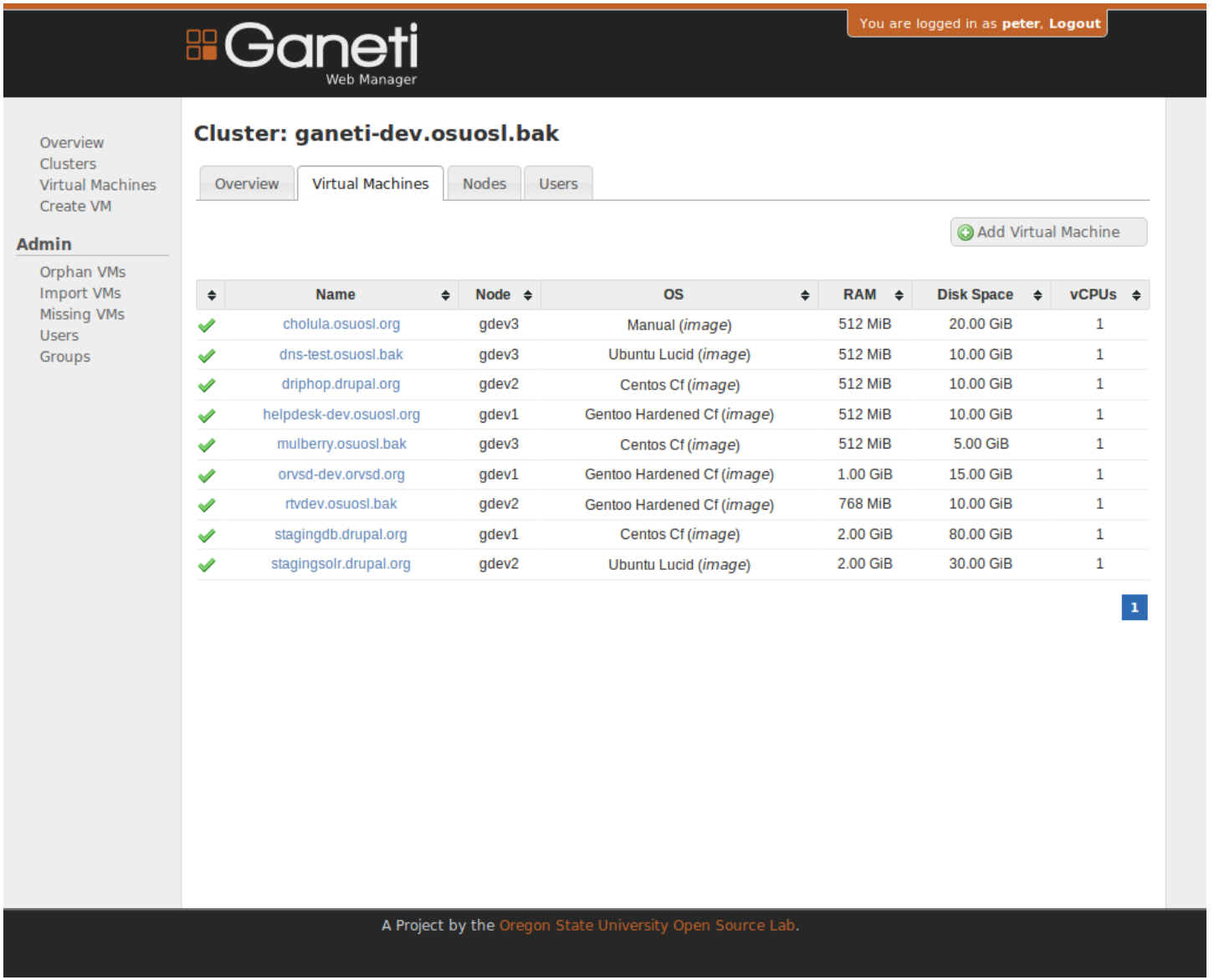
GWM: Instance (VM) create



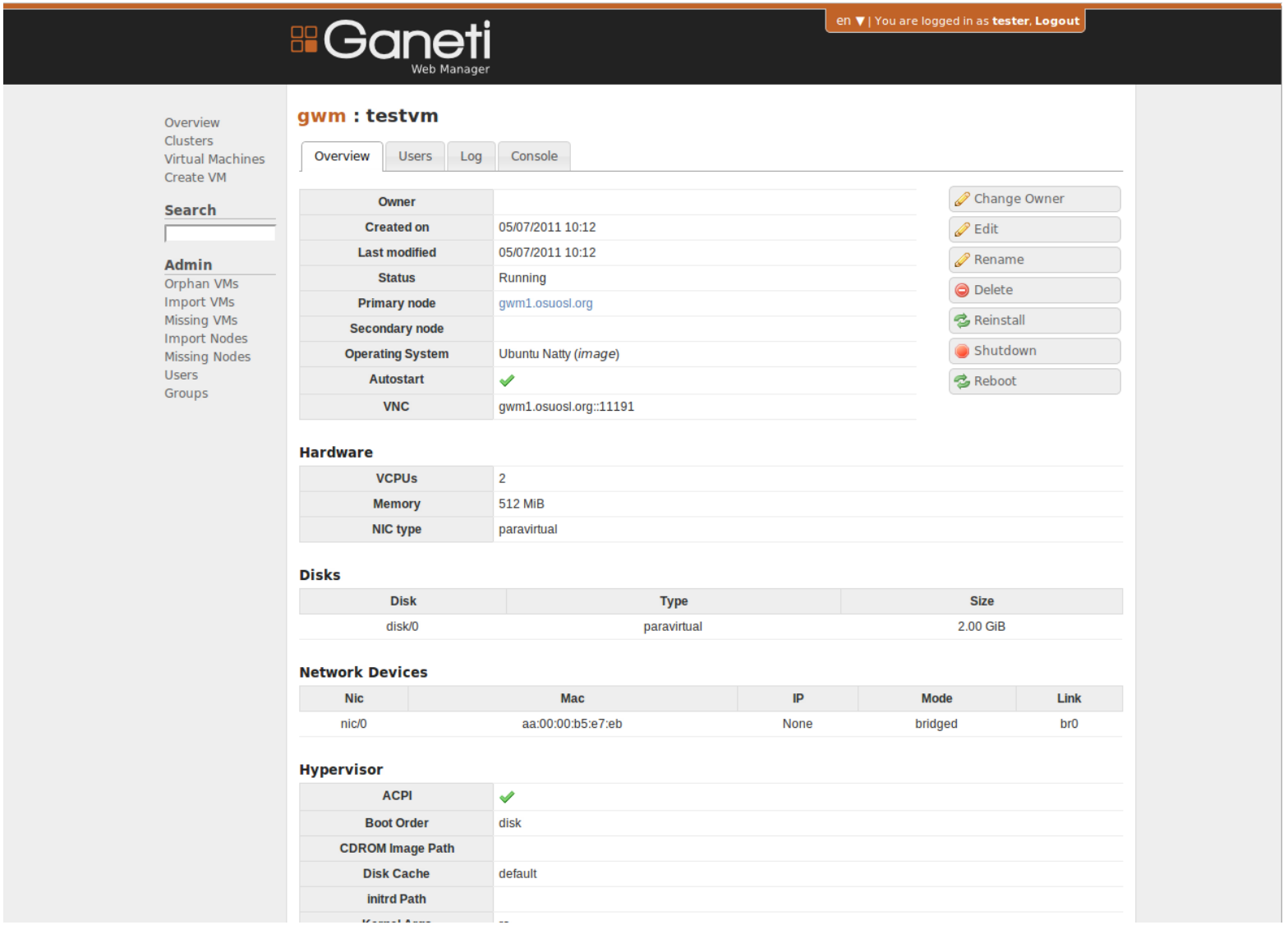
GWM: Instance (VM) create



GWM: Cluster instances (VMs)

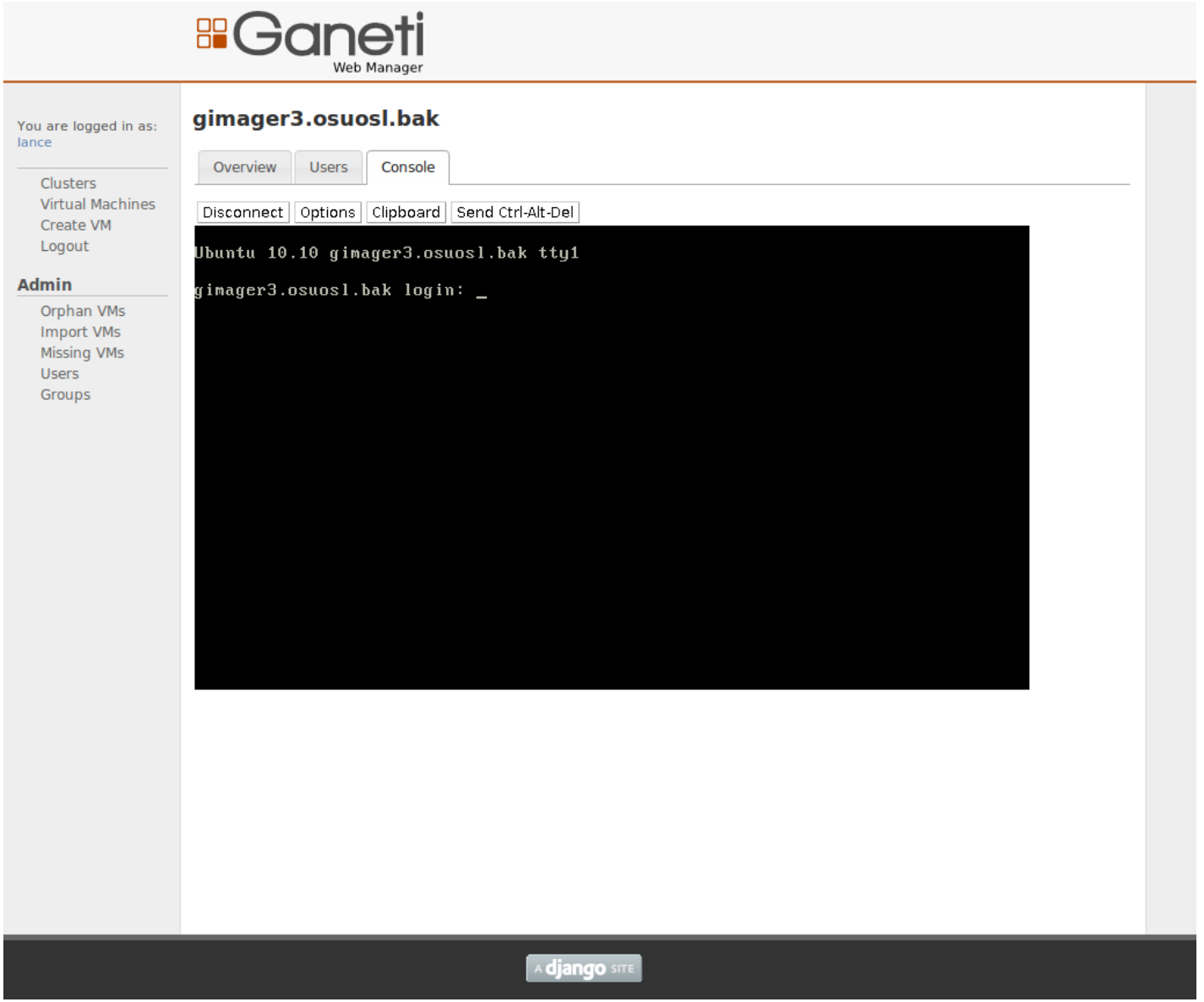


GWM: Instance (VM) details

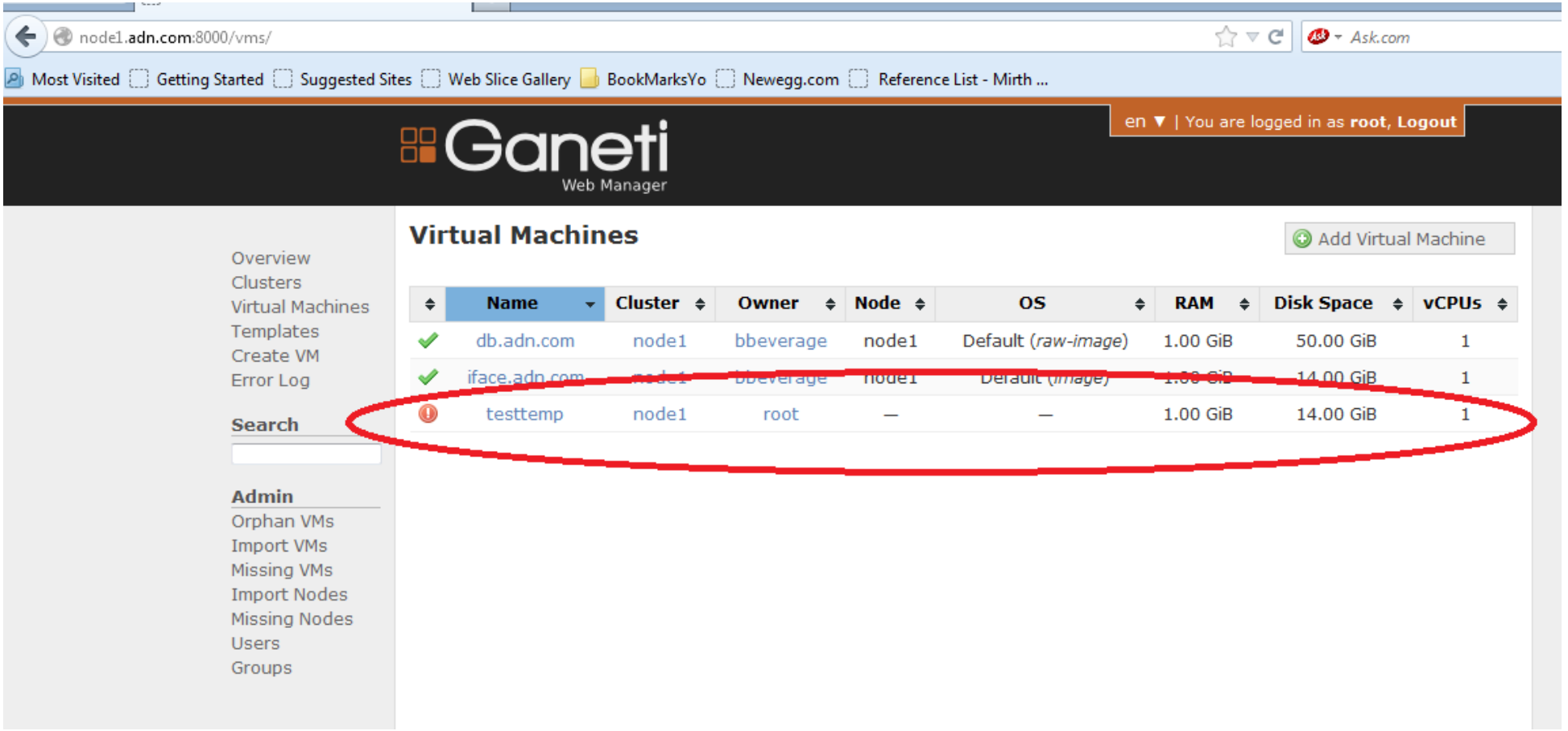


GWM: Instance (VM) console

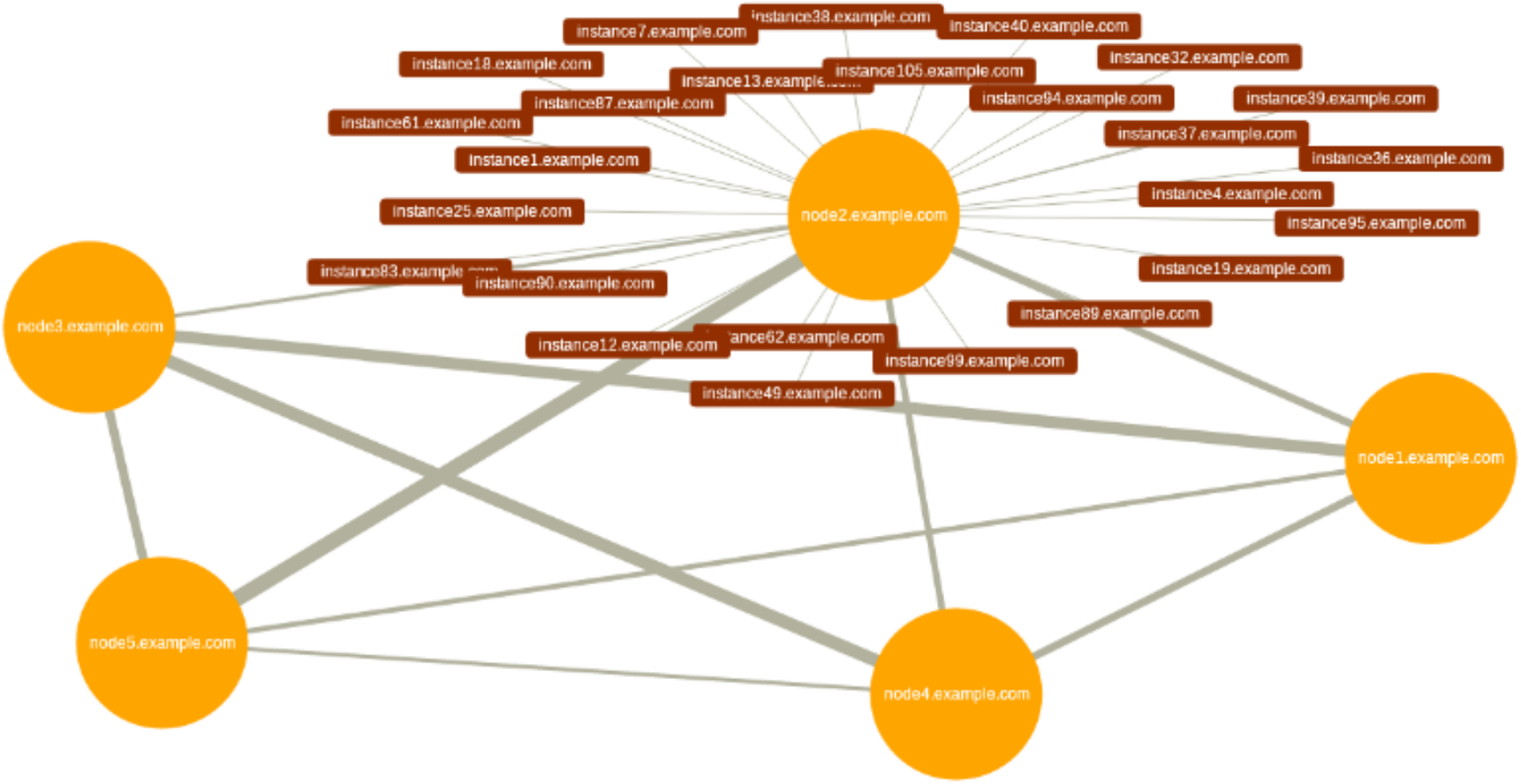
GWM: Instance (VM) console



GWM: Instance (VM) error



GWM: Ganetiviz



Ganeti Web Manager

- Allows setting of most VM parameters
- VM management can be delegated to users
- Fine-grained access control
- Console access via HTML5/Javascript in browser (noVNC, websockets)
- New release April 2015, includes things like *Ganetiviz* (graphical representation of cluster),

Ganeti Web Manager downsides

Maintains a database (SQLite, PostgreSQL, MySQL or Oracle) of instances separate from Ganeti:

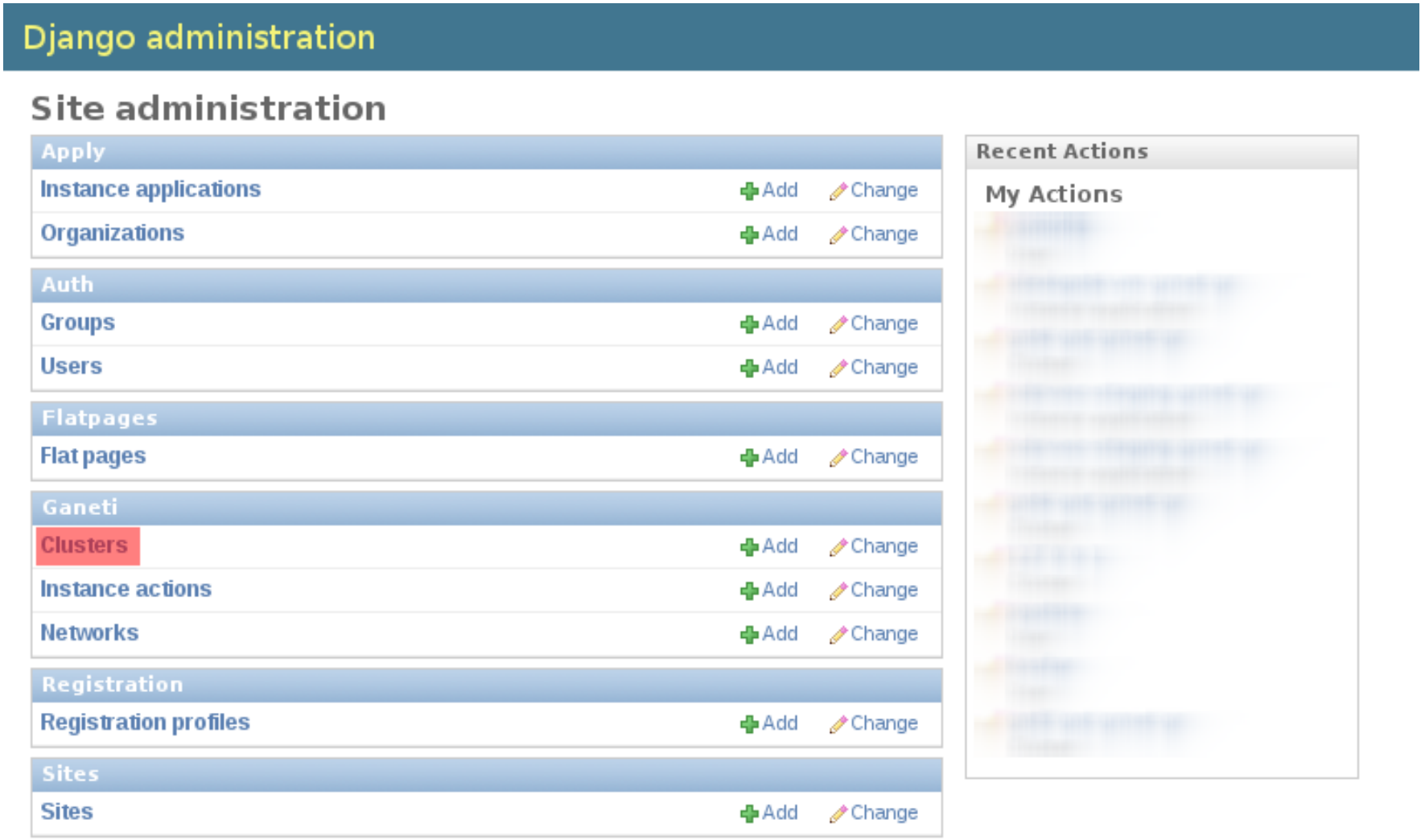
- Can get out of sync
- Changes which are made via the CLI may not be visible in the web interface
- Press "Refresh" button to resynchronize

- VMs created outside GWM have to be imported; "orphan VMs" (no owner) have to be "adopted"
- Errors in VM creation can cause GUI to fail

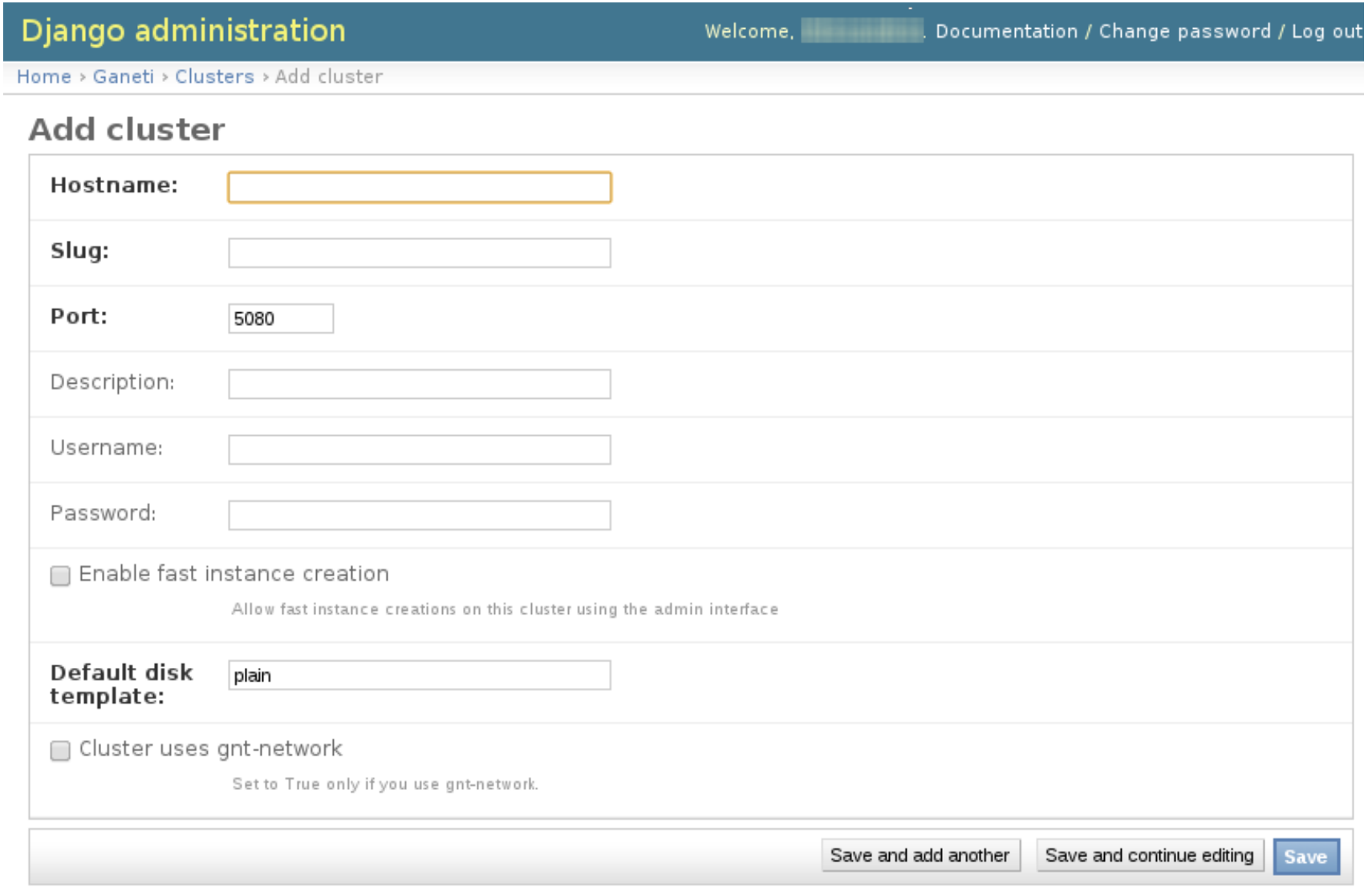
Ganeti Manager

- As used by ViMa (vima.grnet.gr)
- Front-end to GRNET's Virtual Private Servers (VPS) service.
- Provides ticket-like interface where users fill in a form to request a VM
  - manual approval or rejection
- Can report lots of VM statistics
- Installation is simpler than Ganeti Web Manager:
  http://ganetimgr.readthedocs.org/en/latest/install.html
- Configuration after install is reasonable:
  http://ganetimgr.readthedocs.org/en/latest/admin.html

Ganeti Manager: New cluster



Ganeti Manager: New cluster

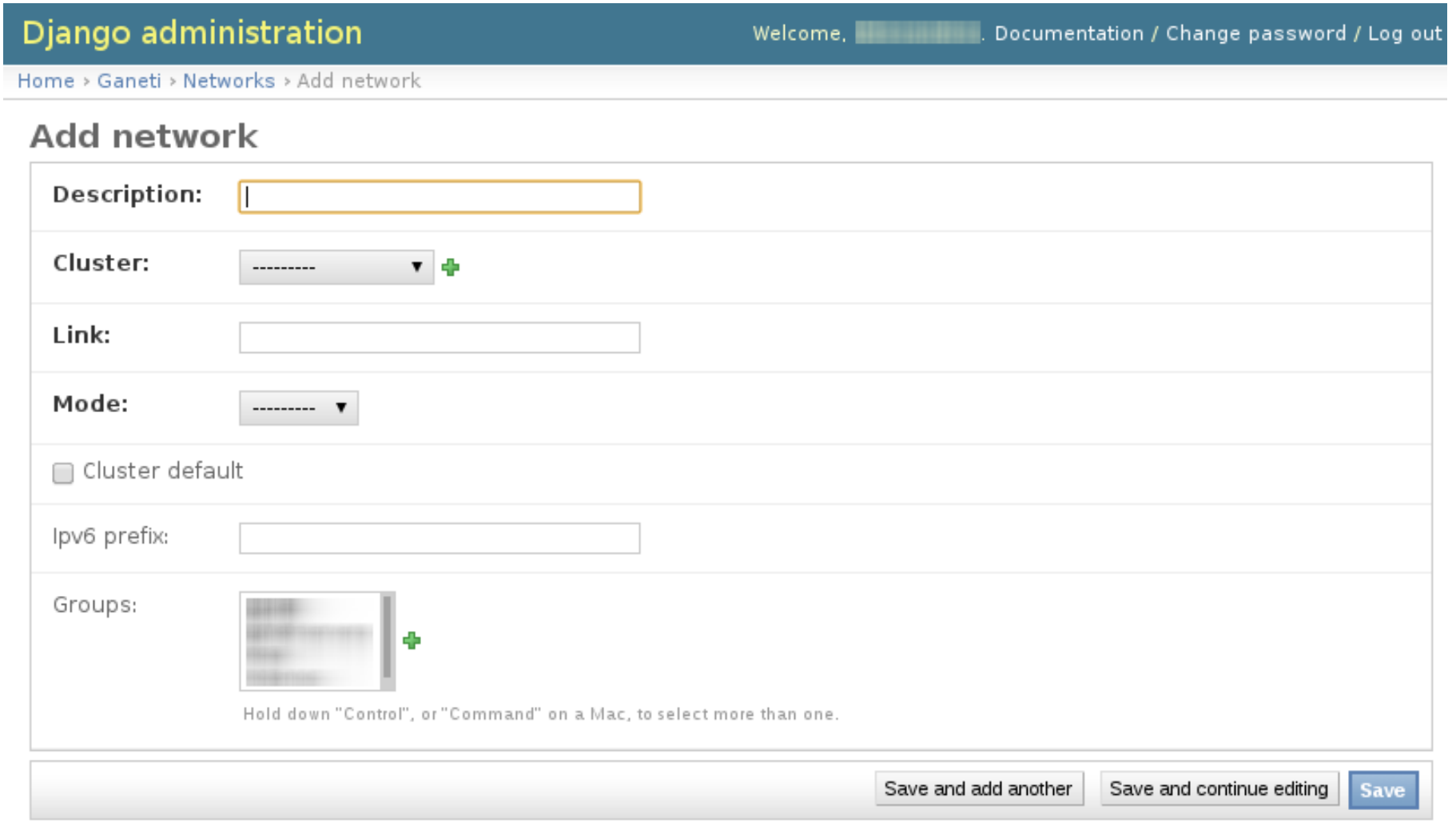


Ganeti Manager: New cluster

An explanation about some of the settings:

- `Hostname` is the fully qualified domain name of the cluster
- `Slug` is a friendly name for the cluster
- `Port` is the port the RAPI daemon listens to on the master node. Unless you manually changed it this should be 5080
- `Username/Password` are the credentials created earlier for the cluster
- `Fast instance creation` is an option to submit instance creation requests through the admin insterface instead of going through the normal application procedure.
- `Default disk template` is the disk template used by default for the specific cluster
- `Cluster uses gnt-network` is a soon to be deprecated option about network options for new instances. If you use routed networks (though gnt-network) this should be on.

Ganeti Manager: Add network



Ganeti Manager: Instances

My instances

Display 20 instances

Search:

Showing 1 to 3 of 3 entries

← Previous 1 Next →

Name	Cluster	Memory	Disk	CPUs	Status	IP	Shortcuts
[redacted]	[redacted] (public3)	512.0 MB	5.0 GB	1	Stopped Locked Shutting down	[redacted]	Action Pending
[redacted]	[redacted] (public3)	512.0 MB	5.0 GB	1	Running	[redacted]	[redacted]
[redacted]	[redacted] (public1)	2.0 GB	6.8 GB	2	Running	[redacted]	[redacted]

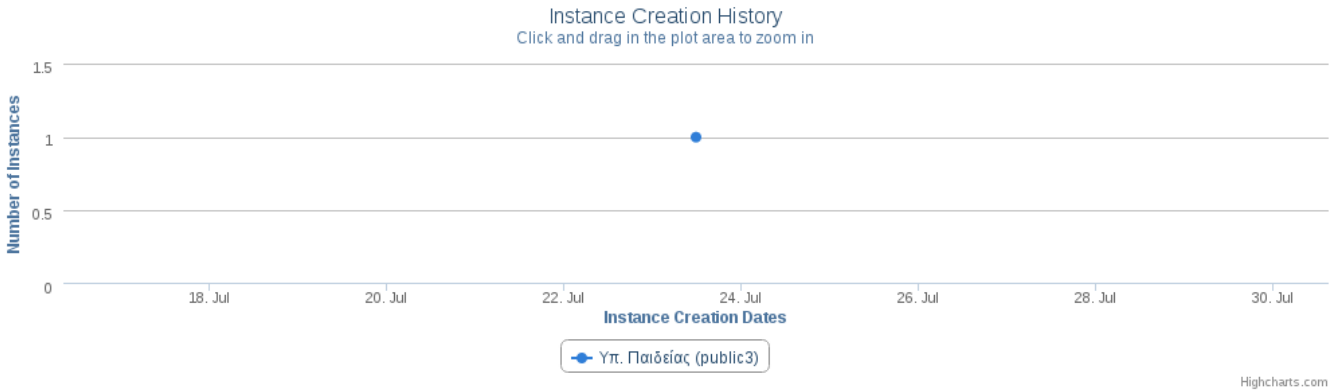
Showing 1 to 3 of 3 entries

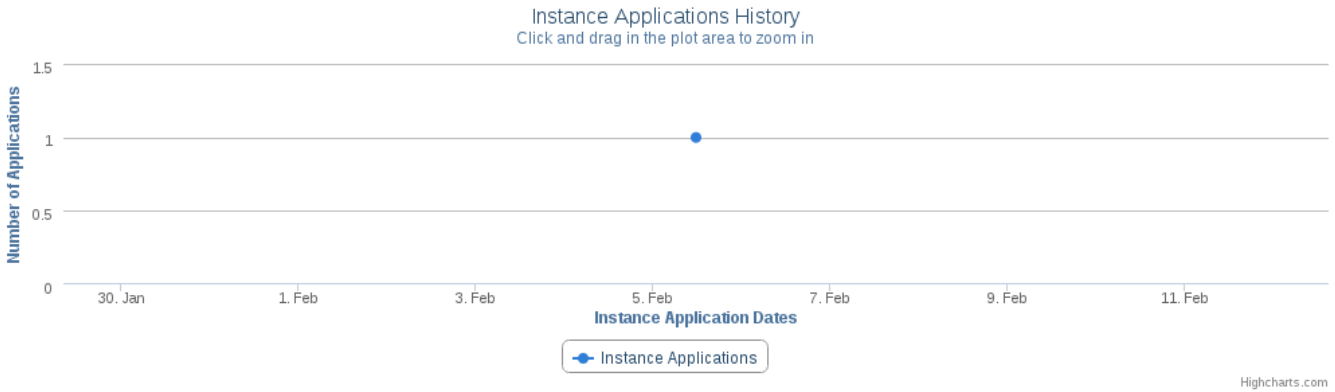
← Previous 1 Next →

Ganeti Manager: Instance statistics

Home / Service Statistics

ViMa Statistics





Your Statistics	
My Instances Managed by ViMa	1
CPUs Total	1
Mem (MB) Total	512
Disk (MB) Total	2048
CPUs/VM Avg.	1.00
Mem (MB)/VM Avg.	512.00
Disk (MB)/VM Avg.	2048.00

Fill your request

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Ganeti Manager: Instance creation

Apply for a new instance

Instance information

Hostname

A fully qualified domain name, e.g. host.domain.com

Memory

512.0 MB

Virtual CPUs

1

Disk size (GB)

5

Specify a size from 2 to 50 GB

Hosts mail server

Check this option if the virtual machine will be sending e-mail

Operating system

Use/Comments

Give a short description of the intended use of this virtual machine, that justifies the parameter selection above. Feel free to include any additional comments.

Comments

Additional comments you would like the service administrators to see

Administrative contact

If you are applying on behalf of a NOC under GRNET's constituency, please select the appropriate organization. Otherwise, f the admin contact information below.

Organization

-OR-

Administrative Contact

Admin contact name

Admin contact email

Admin contact phone

Miscellaneous

We kindly remind you of the following:

- You are solely responsible for the data on your VM. You have to take care of back-ups etc.
- We reserve the right to temporarily suspend the operation of your VM in case it causes malfunctions to our infrastructure

I Agree

I have read the above and accept them, along with the Terms of Service

Apply

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Ganeti Manager: Cluster information

Home / Cluster Info

Cluster Info

gnt7 ::. Υπ. Παιδείας (public3)

Hostname	[redacted]
Disk Templates	drbd plain
Hypervisor	kvm
Version	2.9.3
Instances	all: 105 running: 93 stopped/other: 12

Ipolicy

Min		Max	
Disk Size	1 GB	Disk Size	1 TB
CPUs	1	CPUs	8
Memory	128 MB	Memory	32 GB
NICs	1	NICs	8
Disks	1	Disks	16

Nodegroups

Name	Nodes - #Inst - #CPUs - %Mem	Networks	Alloc Policy	VGs
default	[redacted] 15 16 [redacted] 15 16 [redacted] 15 16 [redacted] 15 16 [redacted] 16 16 [redacted] 16 16	L2VPN [redacted] NOC [redacted] (gnt7) NOC [redacted] (gnt7) [redacted] D [redacted]	preferred	
scs	[redacted] 3 24 [redacted] 4 24 [redacted] 3 24 [redacted] 3 24	L2VPN [redacted] NOC vlan[redacted] NOC vlan[redacted] [redacted] D public_98	unallocable	gnt_sas gnt_ssd

Networks

Name	Type	Network	Network6	Free
[redacted]	bridged	-	-	-
[redacted]	routed	[redacted]	[redacted]	[redacted]

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Ganeti Manager: Node status

Nodes

Master 3 | Regular 45 | Candidate 6 | Drained 0 | Offline 0

Select Clusters

Display 25 nodes

Search:

Name	Nodegroup	Memory	Disk	CPUs	Instance #	Status	Cluster
[redacted]	default	54% Free: 21.7 GB Total: 47.3 GB	Shared Storage	16	16	Regular	vima2
[redacted]	default	65% Free: 16.4 GB Total: 47.3 GB	Shared Storage	16	16	Regular	vima2
[redacted]	default	68% Free: 14.7 GB Total: 47.3 GB	Shared Storage	16	16	Regular	vima2
[redacted]	default	54% Free: 21.6 GB Total: 47.3 GB	Shared Storage	16	16	Regular	vima2
[redacted]	default	47% Free: 24.8 GB Total: 47.3 GB	Shared Storage	16	16	Regular	vima2
[redacted]	default	60% Free: 18.6 GB Total: 47.3 GB	Shared Storage	16	16	Master	vima2
[redacted]	default	69% Free: 14.2 GB Total: 47.3 GB	Shared Storage	16	16	Regular	vima2
[redacted]	default	75%	Shared Storage	16	16	Regular	vima2

Ganeti Manager: Cluster statistics

Cluster

Nodes

All nodes

Get Graphs

Date Range

5 October, 2014 - 6 October, 2014

Graphs for

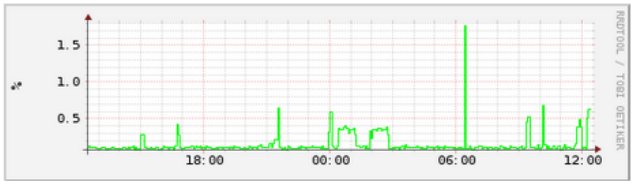
Show

Graphs for

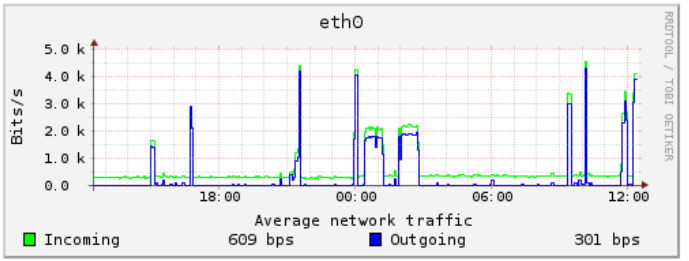
Collapse

gr

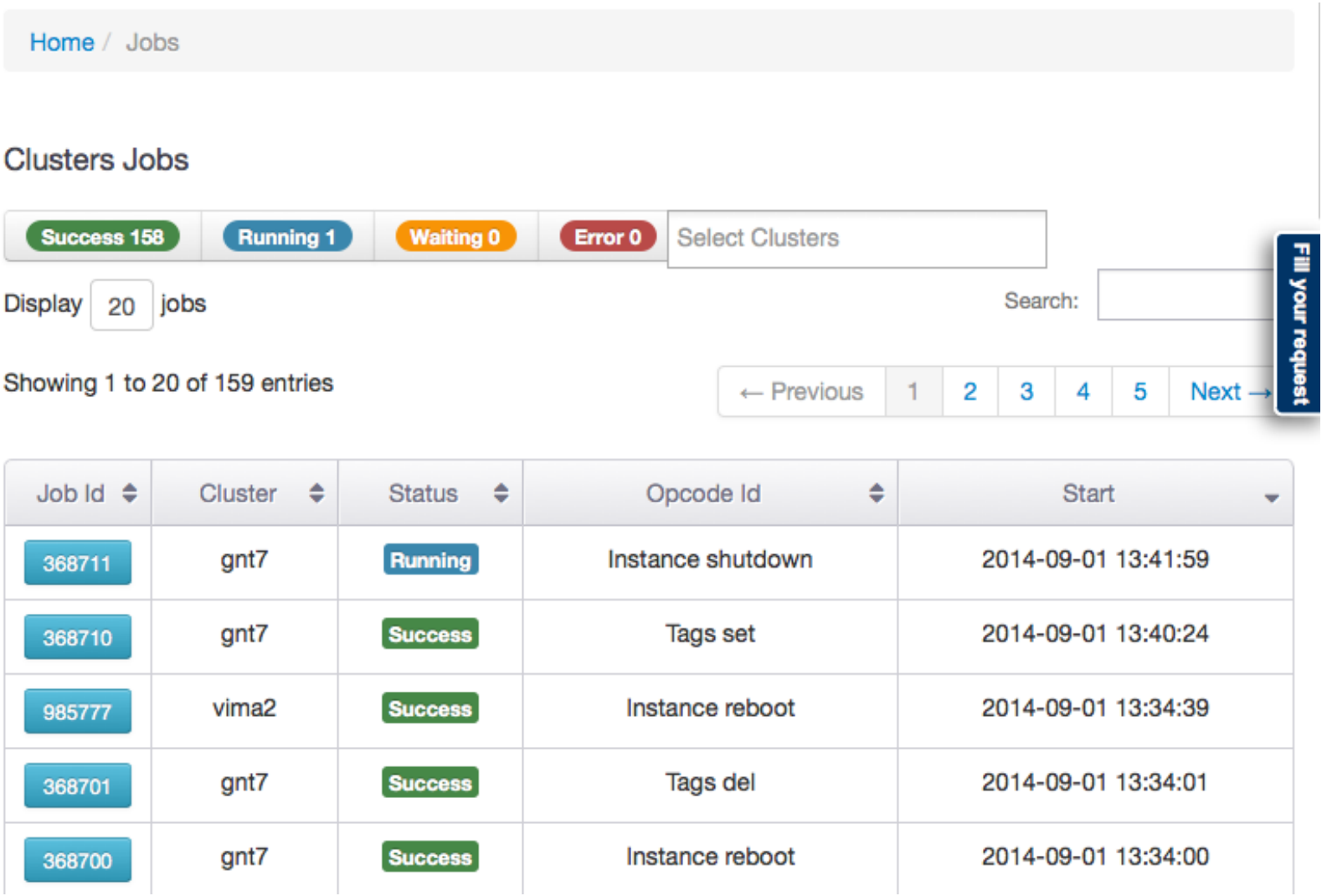
Cpu



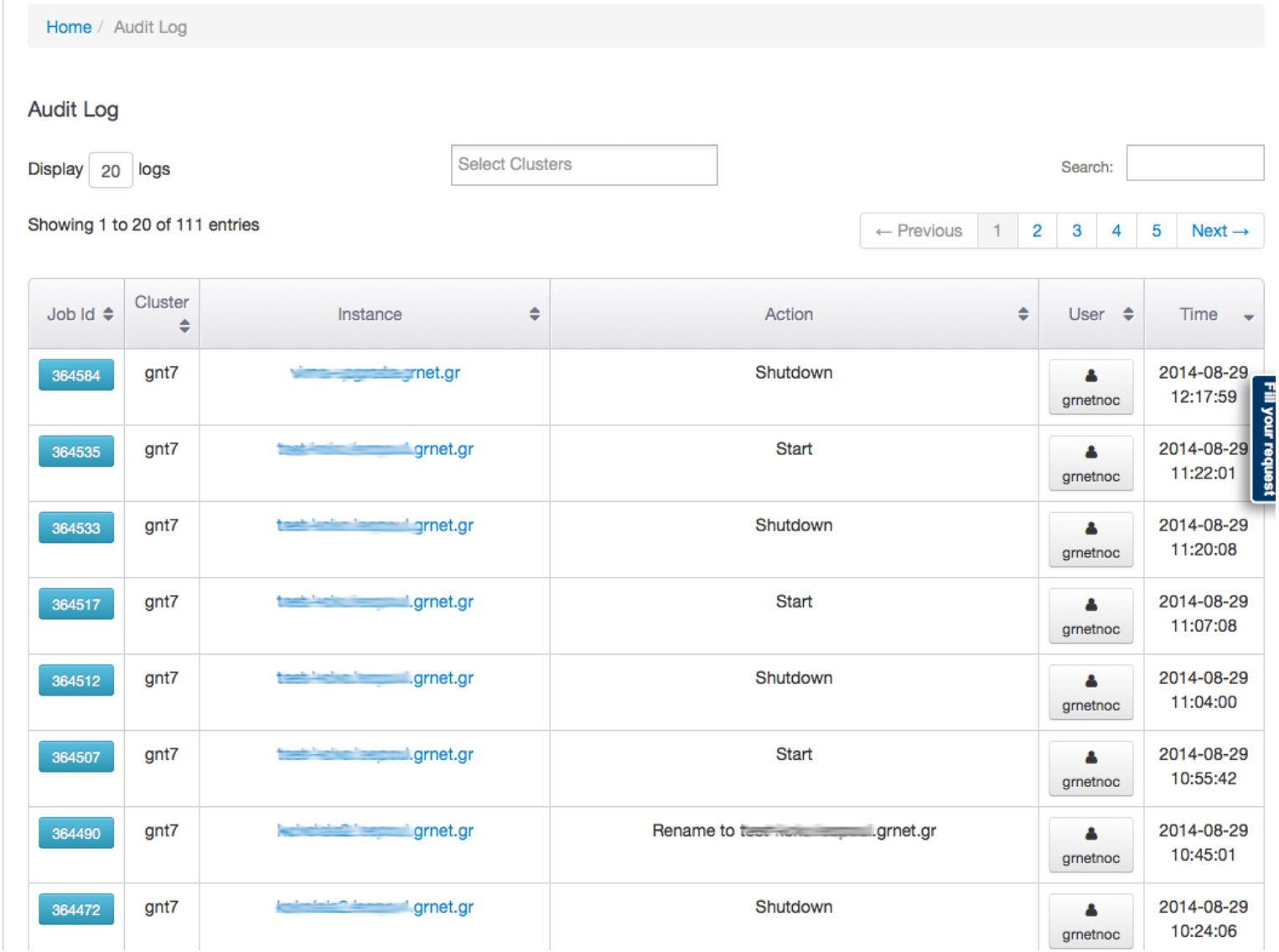
Network



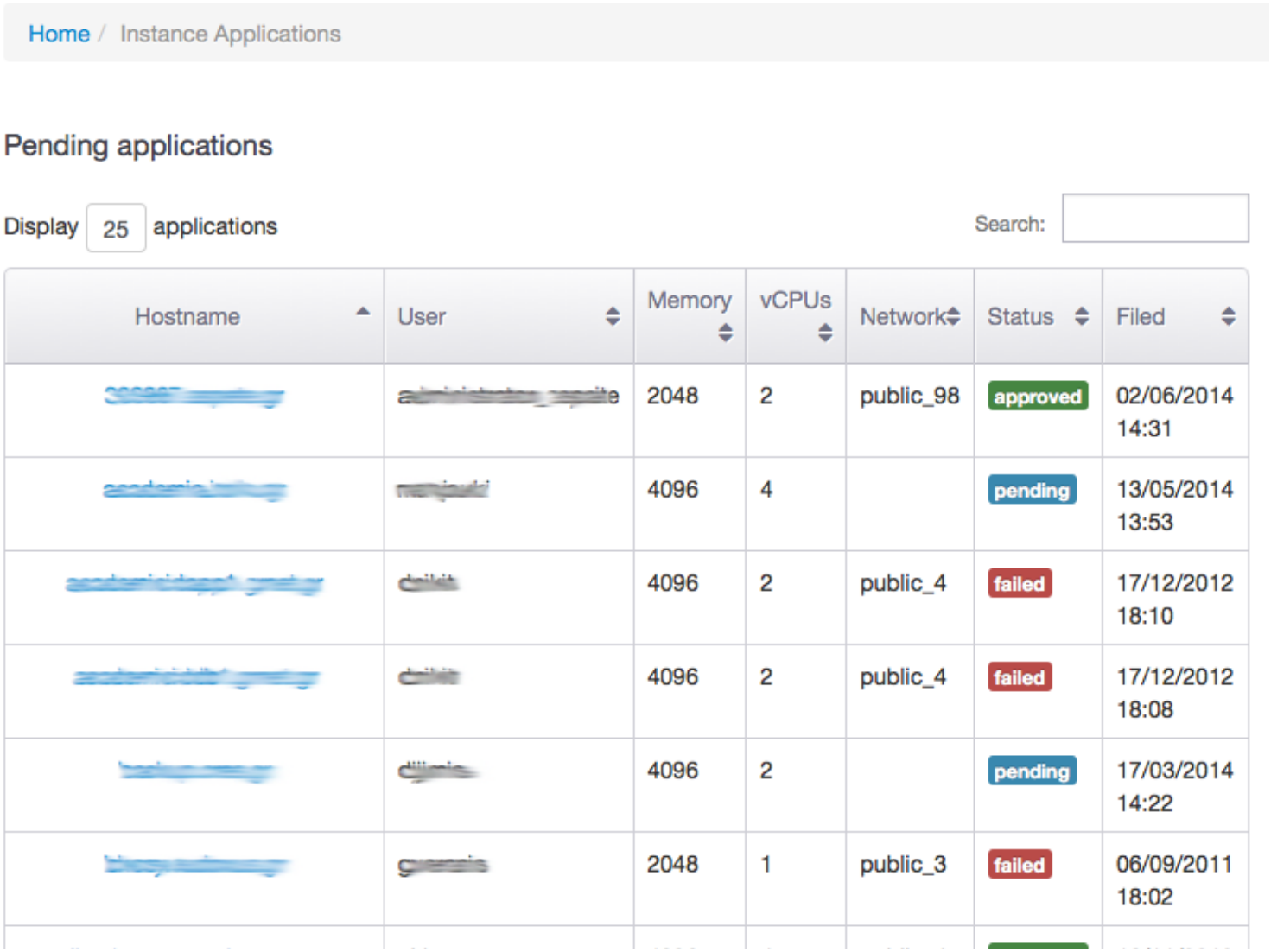
Ganeti Manager: Cluster jobs



Ganeti Manager: Logging



Ganeti Manager: Pending requests



Ganeti Manager: More statistics

Ganeti Manager downsides

- Can't do CD-ROM (ISO) installs
  - uses grnet's own version of ganeti-instance-image
  - git dev branch can use snf-image
- Still need to use CLI to change VM settings like memory and vcpus
- Default console access uses Java in browser
  - websockets available but not well documented
- Errors in VM creation are not reported in GUI
  - fixed in dev branch

Which to choose?

- If you want an interface for your *administrators* choose Ganeti Web Manager
  - but they should still have some CLI clue
- If you want an interface for your *VM users* choose Ganeti Manager
  - almost like a private cloud "lite"