

Genocloud: the GenOuest private cloud for Galaxy

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The Genocloud

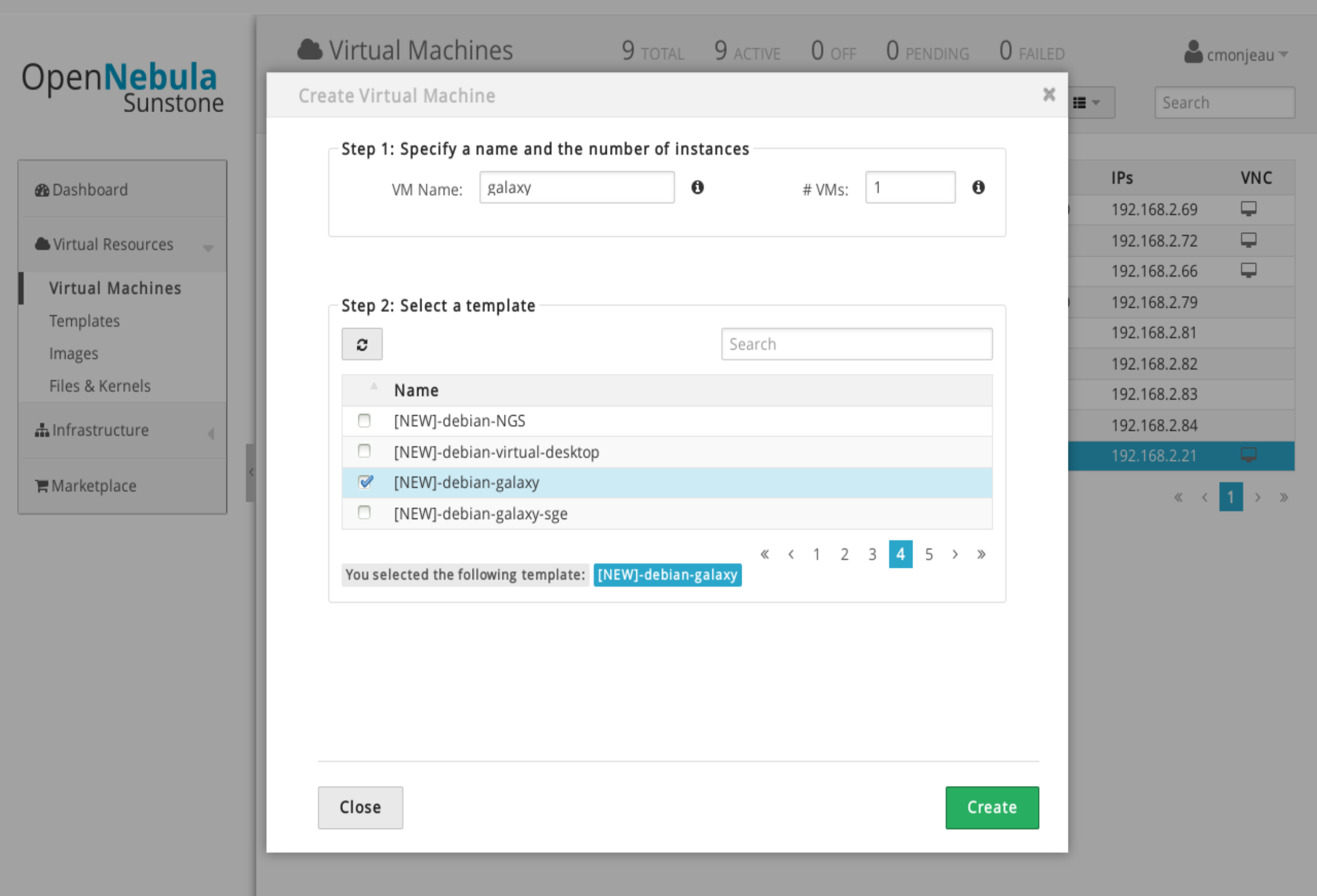
The GenOuest bioinformatics core facility has recently deployed a private cloud - powered by OpenNebula - named Genocloud. It provides several images for the life science and bio-informatic community and covers domains like Next Generating Sequencing (NGS), bio-imaging or proteomics.

We offer three different ways to deploy and use a Galaxy instance inside Genocloud:

- a classic Galaxy server embedded inside a template;
- the latest Galaxy installation on any launched virtual machine with a CHEF cookbook;
- a Galaxy server embedded inside a template and pre-configured for a virtual SGE cluster.

Classic Galaxy

A Galaxy template is provided to deploy a simple ready-to-use server with more than 30 NGS tools installed from the main toolshed.

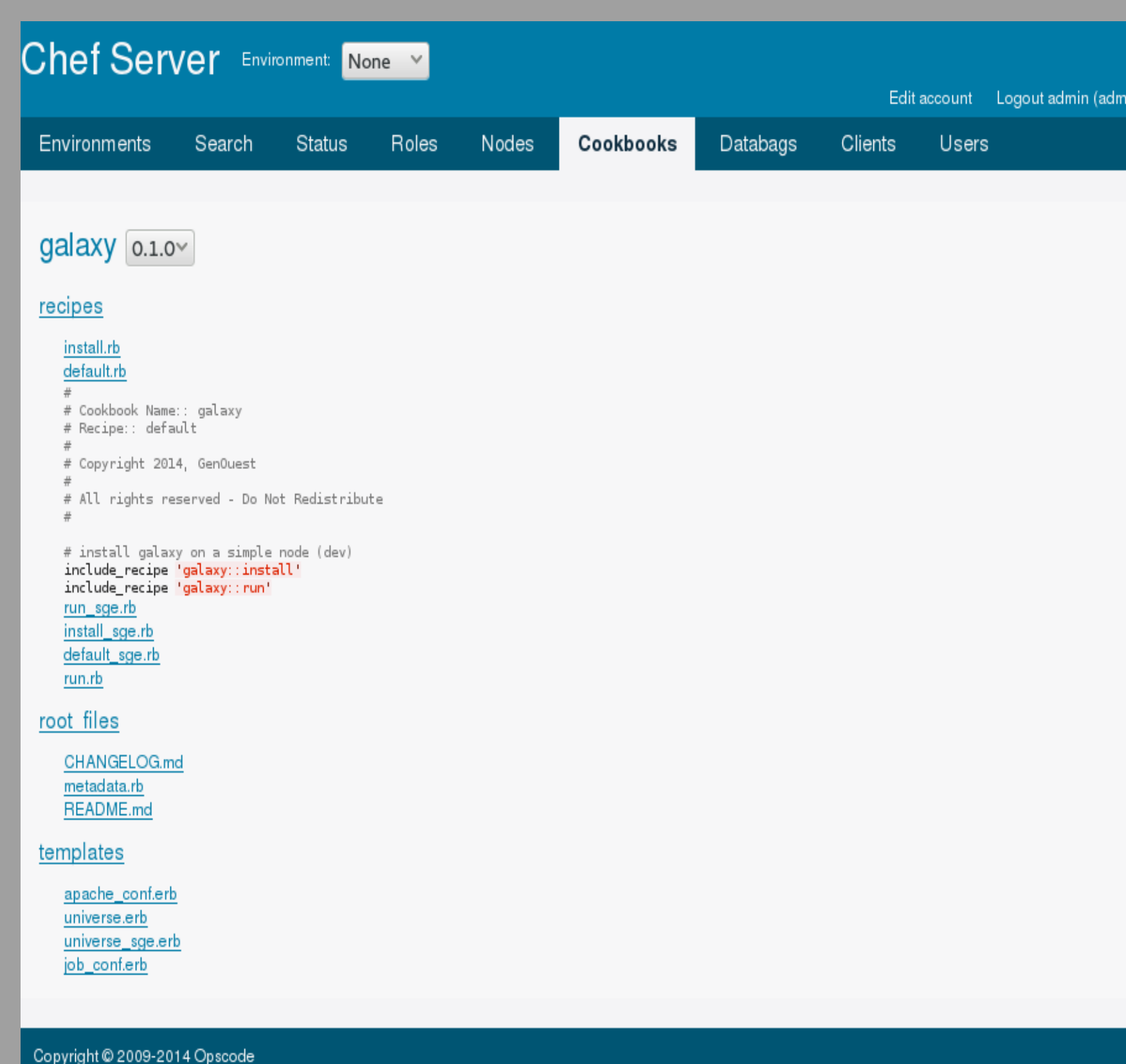


Genocloud : create a machine from the Galaxy template

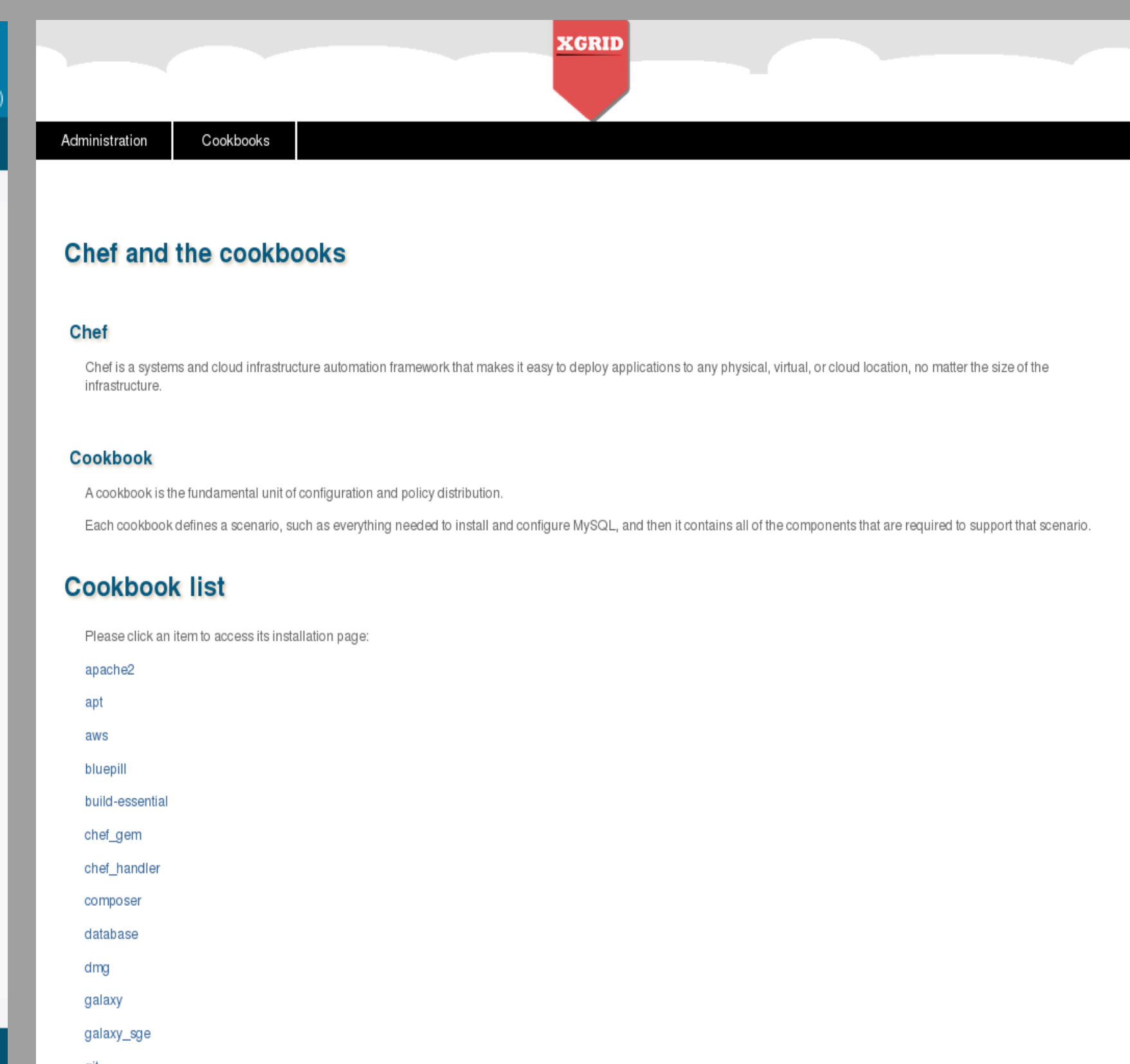
Galaxy installed from CHEF cookbook

We have developed a CHEF (www.getchef.com) cookbook to install the latest release of Galaxy on a virtual machine.

Via our own Xgrid web application, we can carry out the installation of this cookbook on an already active virtual machine.



CHEF server with Galaxy cookbook

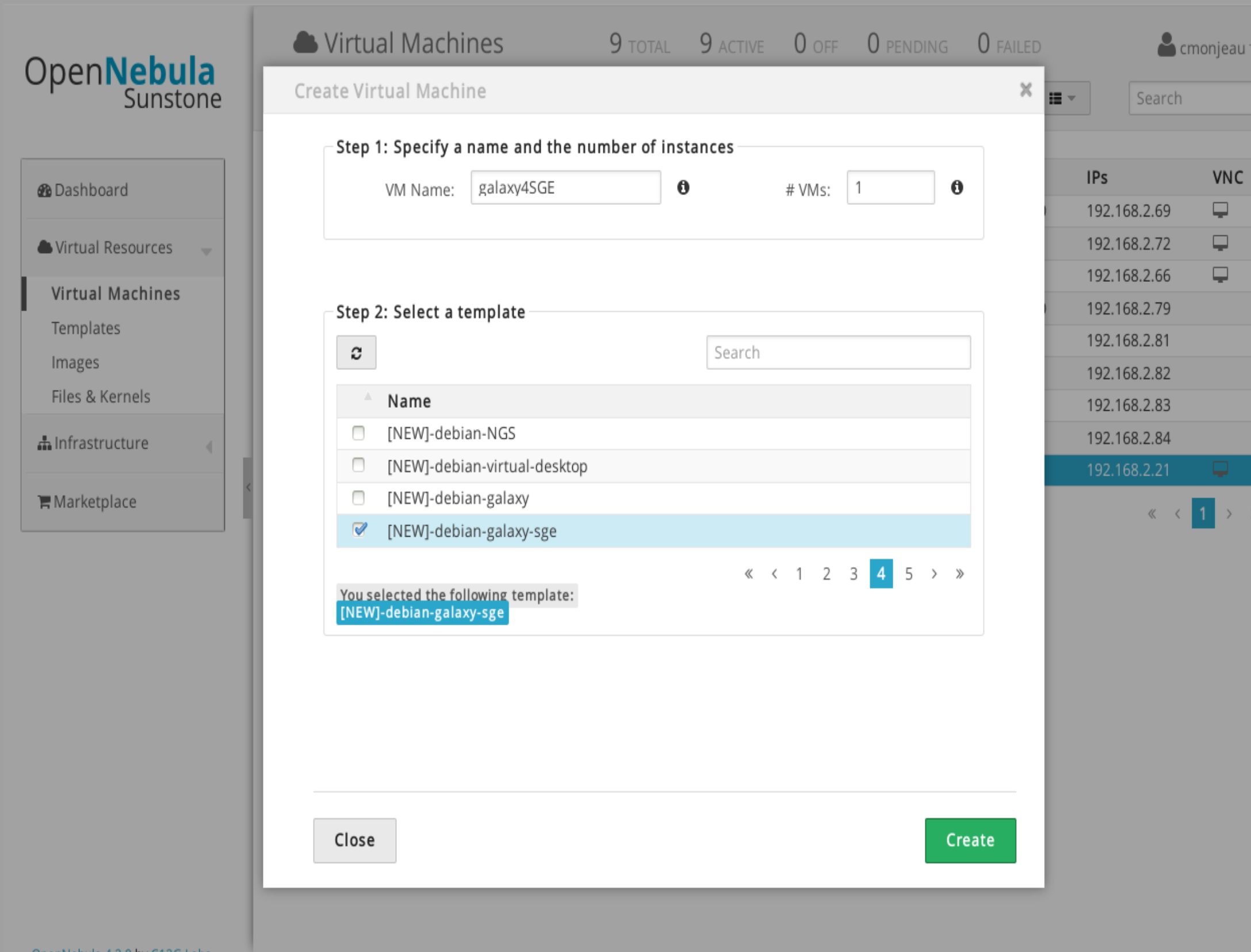


Xgrid Web Application: cookbooks list

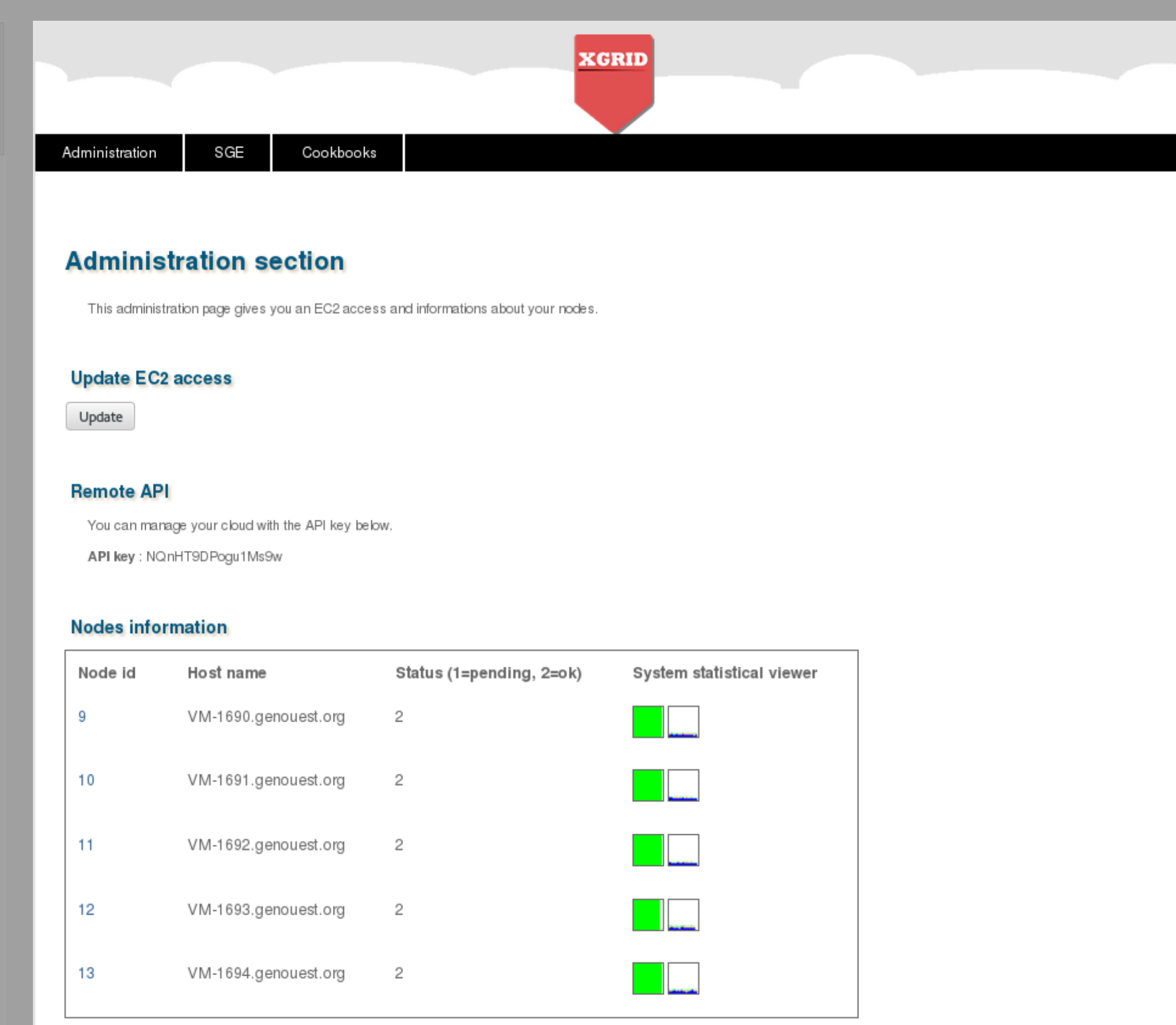
Galaxy under SGE cluster

A Galaxy SGE template is offered to combine a Galaxy server with a virtual SGE cluster. This Galaxy template is configured to run jobs on this cluster.

The virtual cluster nodes can be managed with EC2 via our Xgrid internal web application.



Genocloud : create a machine from the Galaxy SGE template



Xgrid Web Application: manage your SGE nodes

The Genocloud project is supported by Biogenouest: the Western France life science and environment core facility network and funded by Région Bretagne.

All services are available on the Genocloud website: <http://genocloud.genouest.org>

