Galaxy CloudMan Workshop

Community Meeting
April 2012

GMOD

Washington, DC

April 5, 2012
Dave Clements
Galaxy Team
http://galaxyproject.org

Agenda

Motivation

Hands on demo
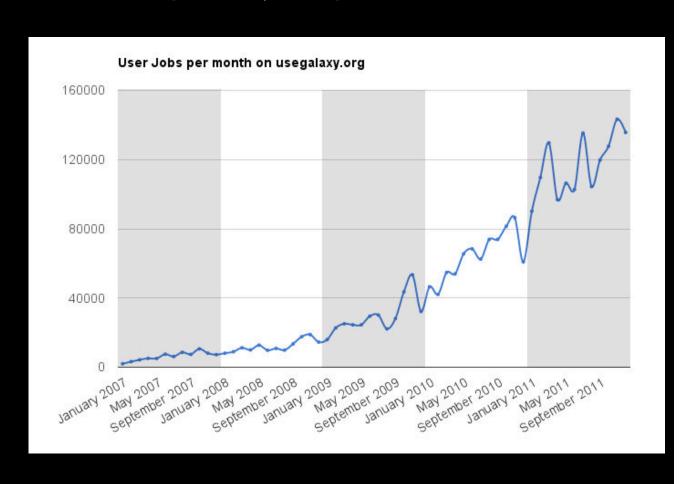
Galaxy main site
(http://usegalaxy.org)

Public web site,
anybody can use

~500 new users / mo
~100 TB of user data
~140,000 jobs / mo

Will continue to be
maintained and
enhanced, but with
limits and quotas

Centralized solution cannot scale to meet data analysis demands
of the whole world

User Jobs per month on usegalaxy.org

Local Galaxy instances
(http://getgalaxy.org)

Galaxy is designed for local installation and customization

- ✦ Just download and run, completely self-contained
- ✦ Easily integrate new tools
- ✦ Easy to deploy and manage on nearly any (unix) system
- ✦ Run jobs on existing compute clusters

Especially useful when you have

- ✦ sensitive or massive data sets
- ✦ you need tools that aren't on getgalaxy.org
- ✦ custom tools you want the world to use

http://galaxyproject.org/wiki/Big%20Picture/Choices

Scale up on existing resources

Move intensive processing (tool execution) to other hosts

Frees up the application server to serve requests and manage jobs

Utilize existing resources

Supports any scheduler that supports DRMAA (most of them)

Running a **Production** Server

Use a real database server: PostgreSQL, MySQL

Run on compute cluster resources

External Authentication: LDAP, Kerberos, OpenID

Load balancing; proxy support

Don't forget storage, electricity, cooling, …

http://wiki.g2.bx.psu.edu/Admin/Config/Performance/Production%20Server

Lack IT knowledge or resources?

No problem, just use *the Cloud.*

Great!

What is that?

Agenda

Motivation

Hands on demo

Hands-on Demo

http://galaxyproject.org

Acks!