

Wispy: The Purdue VM Cloud

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Overview of Clouds

Cloud Computing
Scientific Clouds

Purdue's Cloud

Wispy
Demo

Well Known Clouds

- ▶ Storage
 - ▶ Amazon's S3

Well Known Clouds

- ▶ Storage
 - ▶ Amazon's S3
- ▶ Compute
 - ▶ Amazon's EC2

Nimbus: Scientific Clouds

- ▶ A Globus service implementing Infrastructure as a Service (IaaS)
- ▶ Uses certificates for authentication
- ▶ Provides both a WSRF and an EC2 interface
- ▶ Supports Xen VM technology, soon KVM as well
- ▶ Has hooks to integrate into a site's normal scheduler

Wispy: The Purdue VM Cloud

- ▶ Hardware
 - ▶ Four hosts
 - ▶ Dual processor (2.8GHz)
 - ▶ 2GB of memory
 - ▶ Native networking for guests, IP space on the Teragrid
- ▶ Software
 - ▶ Xen 3.0.3
 - ▶ Standard kernel released by XenSource, modules and source readily available

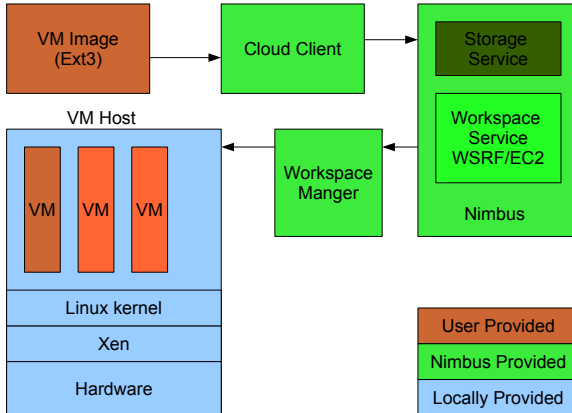
Wispy: Uses

- ▶ Quick Clustering, Hadoop
- ▶ Rapid Software Development/Testing
- ▶ STAR, Physics Code
- ▶ AliEn, geofest, bioinformatics

Other Activities

- ▶ Virtual Linux Clusters on Windows Lab Computers, using VMware and IPOP
- ▶ TeraGrid gateway for OSG virtual clusters

Wispy: A Demo



Wispy: Turning to Rain

Questions? Accounts? rcac-help@purdue.edu
Thanks to Kate Keahey at Argon for the graphics.