

Wispy: The Purdue VM Cloud

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Introduction

Overview of Clouds
Purdue's Cloud

Demo

Cloud Computing

- ▶ Storage.
 - ▶ Amazon's S3

Cloud Computing

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

Nimbus Clouds

- ▶ Nimbus: Scientific Clouds.
 - ▶ A globus service
 - ▶ Uses X509 for authentication, like OSG and Teragrid
 - ▶ Provides both a "Cloud Client" and a EC2 interface
 - ▶ Supports Xen VM technology, soon KVM too

Wispy: The Purdue VM Cloud

- ▶ Hardware
 - ▶ Four hosts
 - ▶ Dual Processor
 - ▶ 2GB of memory
 - ▶ Native networking, IP space on the Teragrid

Wispy: The Purdue VM Cloud

- ▶ Hardware
 - ▶ Four hosts
 - ▶ Dual Processor
 - ▶ 2GB of memory
 - ▶ Native networking, IP space on the Teragrid
- ▶ Software
 - ▶ Xen 3.0.3
 - ▶ Standard kernel released by XenSource, modules and source available

Wispy: Uses

- ▶ Quick Clustering

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- ▶ Rapid Software Development/Testing

Wispy: Uses

- ▶ Quick Clustering
- ▶ Rapid Software Development/Testing
- ▶ More....

Wispy: Downsides

- ▶ Potential Sharing of Resources

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- ▶ Potential Sharing of Resources
- ▶ No static IP
- ▶ Poor file performance
- ▶ Limited deployment time

Wispy: A Demo

- ▶ Push a VM image
- ▶ Deploy a VM image
- ▶ Use our VM
- ▶ Shutdown and retrieve VM

Wispy: End

Questions?