

# Cloud demo

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# System components

## Cloud infrastructure:

- OpenNEbula (ONE), version 2.0, up and running

### Hardware:

- Installation on HP-Blade Center (ONE headnode, 5 cluster nodes)
- Every node: 8 Xeon Cores 2.33GHz, 16 GB RAM
- 1 TB NFS shared Image Repository

### Software:

- Ubuntu 10.4, KVM Support
  - Opennebula 2.0 Beta with Interfaces for: ONE native, OCCl, Amazon AWS (ECONE)
- Access to Amazon Elastic Compute Cloud (Amazon EC2)

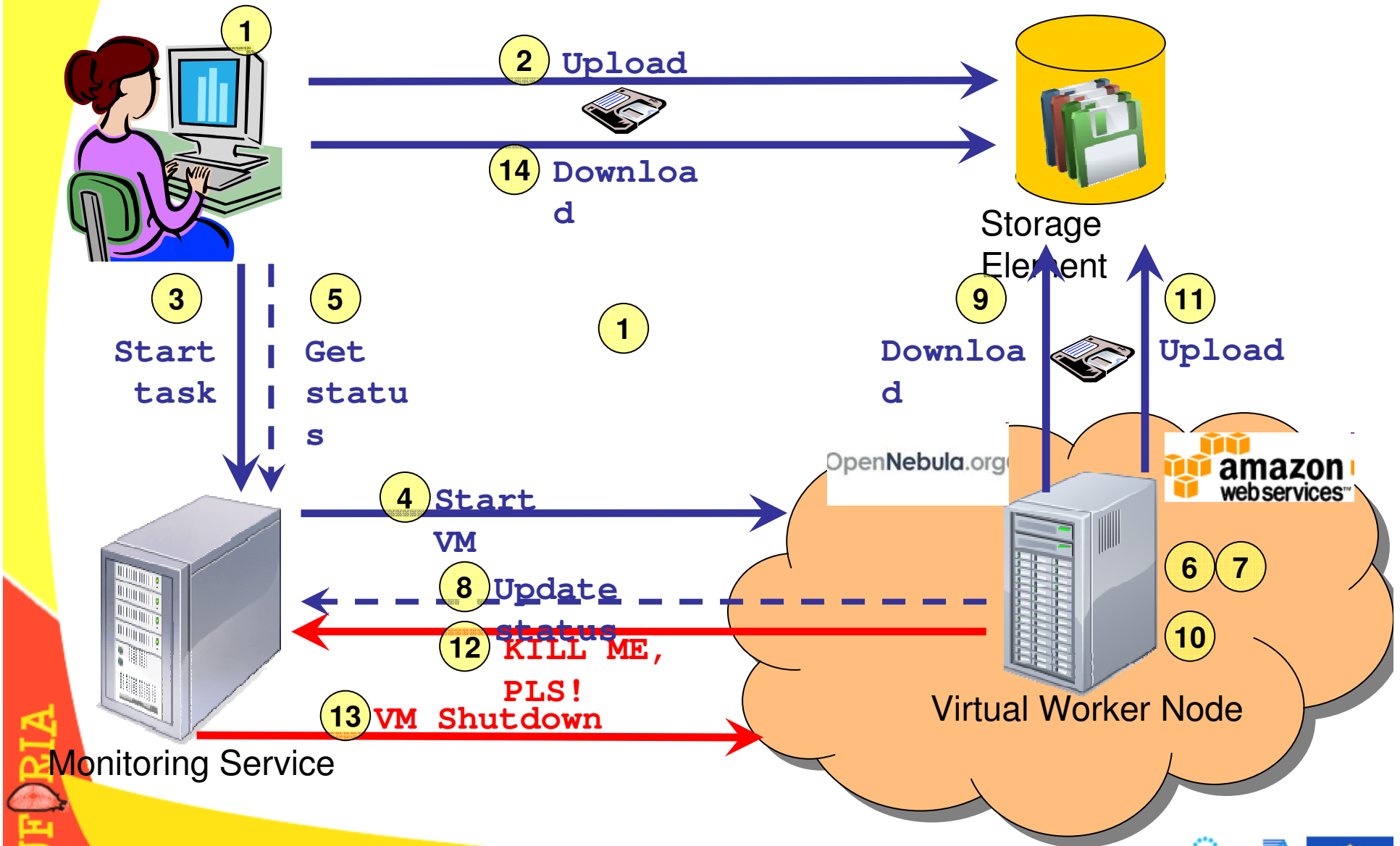
# VM Image

- Virtual Machine (VM) image:
  - VM image based on a gLite 3.2 Worker Node
  - Preinstalled applications (or sent during the stage-in)
  - Instance contextualization mechanism
  - Scripts for application starting, file transfer, status update

# Services

- Job Monitoring Service
  - Additional server to solve firewall problem
  - Access to OpenNebula using AWS API
  - VM start / shutdown
  - Monitoring VM / job status
  - Keeping info about users' jobs
- Kepler
  - Workflow combining all components

# Usage scenario



# Summary

- Infrastructure up and running (Open Nebula)
- Ready to use Image of Virtual Machine with pre-installed Euforia cloud software and applications
- Mechanisms for jobs handling (submission, monitoring, obtaining results) Kepler workflow incorporating all components
- Transparent usage of Amazon **and** Open Nebula resources