E-iRODS
and iRODS@RENCI

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E-iRODS 3.0 Beta

- Initial release based on iRODS 3.0
  - Tracks community code, with a delay

- Hardened binary release of iRODS
  - Passes continuous integration with back-ported bug fixes from community trunk
  - Packaging and signing: initially RPM and DEB

- Certification

- Documentation

- Subscription Support Contracts
Differences in Priority

• iRODS – features and funding

• E-iRODS – testing, packaging, and support
  – Newest features are not supported, yet
E-iRODS Certification

• 100% test coverage of server-side APIs: n-way testing across all combinations of selected platforms and topologies

• Platforms
  – CentOS 5.7
  – Ubuntu 11.04

• Topologies
  – Single Zone: iCAT server + 2 non-iCAT servers
  – Federation: two single zones
E-iRODS Certification

(CPU × OS × iRODS × DB × ResourceType × BuildOption) × (Topology) × (FeatureTest)

Servers

GridBundles

Certification
Open Source Software for the Test Environment

- git
- python
  - celery
  - nose
- erlang
  - rabbitmq
- javascript
  - node.js
- bash

*Developed at RENCI:*

- gridbundle
  - schema.json
  - validator.js
- deploy_gridbundle.py
- assertiCmd/assertiCmdFail
Hudson launches task on Slave Pool

Slave Pool runs script to “deploy a gridbundle”
- gridbundle – topological definition of an n-zone iRODS network (json)

Tests run against the resulting “live grid”
- automated and/or manual testing
- aggregates test results from various machines
Deploying a Gridbundle

- validate gridbundle is well-formed
- validate testbed capacity is sufficient
- foreach iCAT server
  - send celery request, wait for success
  - populate gridbundle data structure (IP and hostname)
  - foreach resource server
    - send celery request, wait for success
    - populate gridbundle data structure (IP and hostname)
- write out populated gridbundle to livegrid.json
Deploying a Gridbundle

Single Zone: One iCAT with two resources

Time

CentOS

iCAT1
centos3.irods.renci.org

ubuntu©

1Resource1
ubuntu1.irods.renci.org

CentOS

1Resource2
centos1.irods.renci.org

Federation: Two iCATs with one resource each

Time

ubuntu©

iCAT1
ubuntu2.irods.renci.org

CentOS

1Resource1
centos4.irods.renci.org

CentOS

iCAT2
centos2.irods.renci.org

ubuntu©

2Resource1
ubuntu1.irods.renci.org

Zone1

Zone2
Gridbundle Combinations

Topologies - Resource Configurations - Platforms

- Single Zone and Federated
- Resources – cache, compound, DBR (postgres, mysql)
- Ubuntu, CentOS (soon: MacOSX, Solaris, Windows)
Documentation


• E-iRODS Manual http://e-irods.com

• iRODS Wiki http://irods.org
Support Contracts

- Tutorial packages
  - User and administrator tutorials
  - On-site hands-on or web conferencing

- Technology preview packages
  - Helpdesk response to usage problems: iRODS, E-iRODS

- Production support packages
  - Bug fixes and problem closure for E-iRODS supported components on supported platforms

- Development support packages
  - Community or proprietary feature development
E-iRODS from iRODS@RENCI

- Downloadable binaries available at http://e-irods.com
- Initial release based on iRODS 3.0
- Support contracts available upon request
  - Contact: Leesa Brieger, leesa@renci.org