Charles Schmitt
Director, Informatics and Data Sciences
Senior Researcher – Data Mining
RENCI

E-iRODS Consortium Update

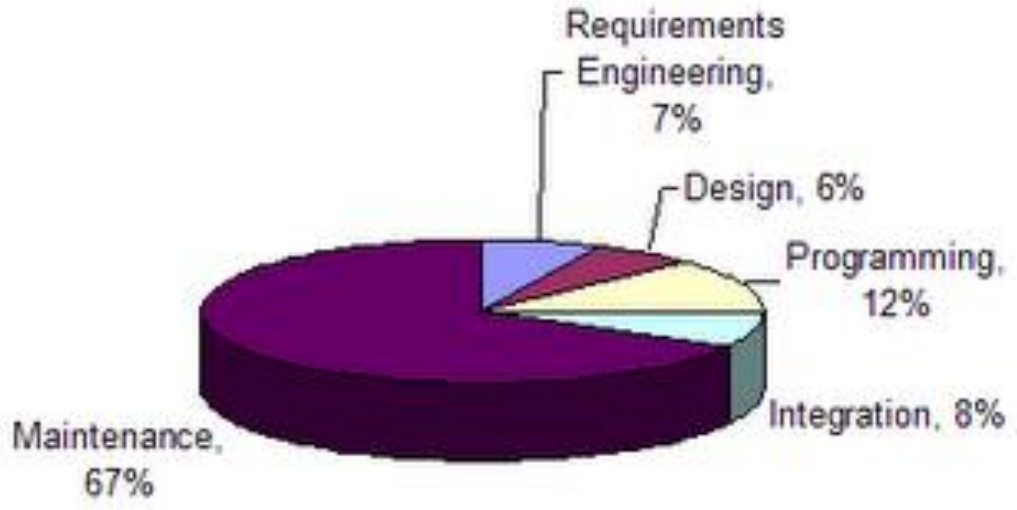
iRODS 2013 User Group Meeting

Acknowledgements

- DICE and the iRODS Development Team
- RENCI staff and broader UNC community
- Max Planck Society
- Many willing and helpful advisors from the iRODS Community
- Many existing consortium from which we're learning from

Sustaining iRODS development

Reduce reliance on NSF funding for iRODS technology



Academic funding won't pay for most of this

While staying open, driven by existing and future community, supportive of growing enterprise usage, innovative, …

Dual approach to sustainability

- Tailored *distribution* aimed at production deployments
  - E-iRODS
  - Driving towards a stable, easily maintained, easily extended iRODS core
  - Increase adoption in mission-critical industry, federal agencies, and research labs

- Consortium membership model
  - E-iRODS Consortium
  - Membership supported model
  - Not commercial

E-iRODS Distribution

Initial E-iRODS Distribution

- Beta releases in 2012
  - RENCI genomics grid used as testbed, in use since early last year
- Release candidate in preparation, first release aimed for 04/2013
- Pluggable microservices
- Pluggable resources
- Binary packaging
- Based on iRODS 3.0-3.2 minus later features: PAM, workflows

E-iRODS Focus

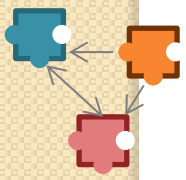
- Testing (see 2012 irods user group meeting)
  - Continuous testing, extensive code coverage
  - Distributed scenarios plus feature sets
  - As near production as possible for member scenarios
- Binary releases
  - Still open source
- Pluggable framework
  - Enable automated testing, certification of distributions, minimize inter-dependencies, dynamic extensibility, reduce danger from extensions,…

E-iRODS: Towards a pluggable framework for data grid technology

iRODS / E-iRODS Core is a substrate upon which new functionality may be added via seven interfaces. The core is designed to be a small, stable broker of extensible services.

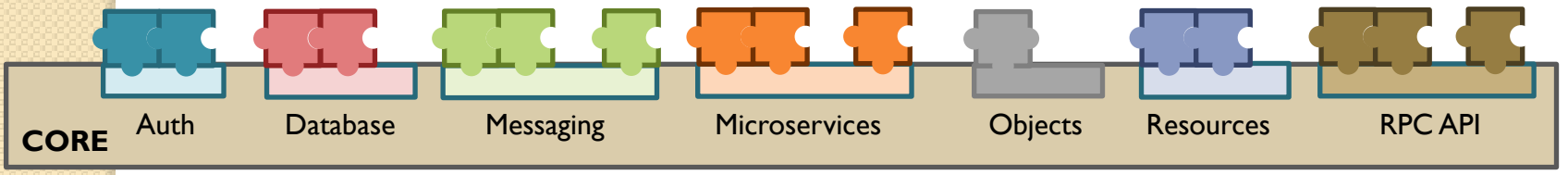
Interfaces for Extensibility:
Authentication, Database, Messaging, Microservices, Objects, Resources, RPC API

Plugins extend the functionality of iRODS / E-iRODS relevant to a given interface. They are self contained, dynamically loadable, and could be proprietary.

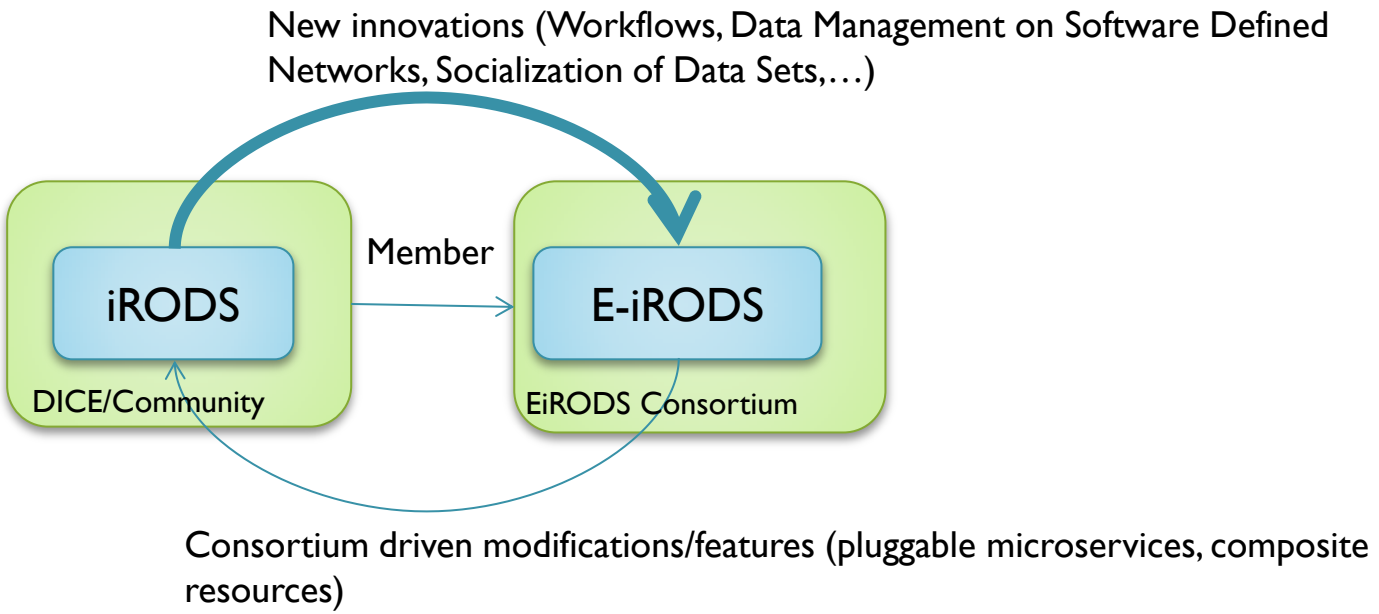


iRODS/E-iRODS includes a plugin dependency model. Plugins may be inter-dependent and provide new functionality via multiple plugins.

A Bundle of plugins can provide a set of features to support newly created first-class objects within iRODS / E-iRODS such as Tickets or Workflows.



RedHat-Fedora model



- E-iRODS:
  - Targeted subset of iRODS
  - Less frequent releases
  - Path to mission critical deployments and support
  - Path to adoption by lower risk groups

- iRODS
  - Pushes on the frontier of innovation
  - Finds new ways to enable Science

E-iRODS Distribution Release Roadmap

- First Release: 04/2013
  - Pluggable microservice, pluggable composite storage resources
  - Code hardening
  - Binary distributions

- Second Release: mid-late 2013
  - Consortium driven feature sets
  - Migration tools driven by DFC and community needs
  - *Guided by E-iRODS Consortium Technical Working Group*
    - *Renci and DICE development teams*

- Third Release: early 2014
  - Consortium driven feature sets
  - Migration tools driven by community
  - *Fully pluggable core allowing isolation of components*
  - *Guided by Technical Working Group*

E-iRODS – iRODS Future Distribution Plans

- iRODS 3.3 release in summer/fall 2013
- iRODS SVN repository frozen after 3.3 release
- E-iRODS Gforge repository used for subsequent releases (3.4+) of E-iRODS and iRODS
- Future distributions build on the same pluggable architecture
    - E-iRODS: stable, certified plugins defining a mission critical data grid distribution
    - i-RODS: experimental and early release plugins advancing new capabilities for data grid distributions

EiRODS Consortium

E-iRODS Consortium

- New membership-based organization
  - iRODS users, adopters, resellers, integrators, partners
  - Focused on E-iRODS distributions

- To be formed in early 2013, founders include:
  - DICE
  - RENCI
  - Members of Max Planck Society

Benefits and Costs

	Non Member	General Member	Professional Member	Sustaining Member	Founding Member
Benefits					
Access to software distributions	x	x	x	x	x
Access to software source code	x	x	x	x	x
Access to online community help and forums	x	x	x	x	x
Access to software documentation	partial	x	x	x	x
Access to training and support documentation	partial	x	x	x	x
Access to use cases and white papers	partial	x	x	x	x
Access to hosted software extensions and modules	x	x	x	x	x
Submit software extensions and modules for hosting		x	x	x	x
Free consulting, training, and support	0 hr/year	10 hr/year	20 hr/year	40 hr/year	60 hr/year
Priority access to paid consulting, training, and support	if available	low	medium	high	Highest
Participation in Consortium Working Groups		x	x	x	x
Participation in Consortium Planning Committee		x	x	x	x

Tiered benefits/costs

Available soon from web:

http://eirods-consortium.org

Benefits Overview

- ***iRODS adopters***
  - Formalized influence over directions
  - Investment protection: overall and specific use cases
  - Support and priority access

- ***Vendors of products that integrate with iRODS***
  - Cross marketing
  - Strategic involvement
  - Support model for customers usings iRODS
  - Investment protection for customer integrated systems

- ***Resellers/Extenders/Support providers of iRODS***
  - Investment protect
  - Formalized influence over future directions
  - Non-competitive partner on contracts and awards
  - Targeted market place

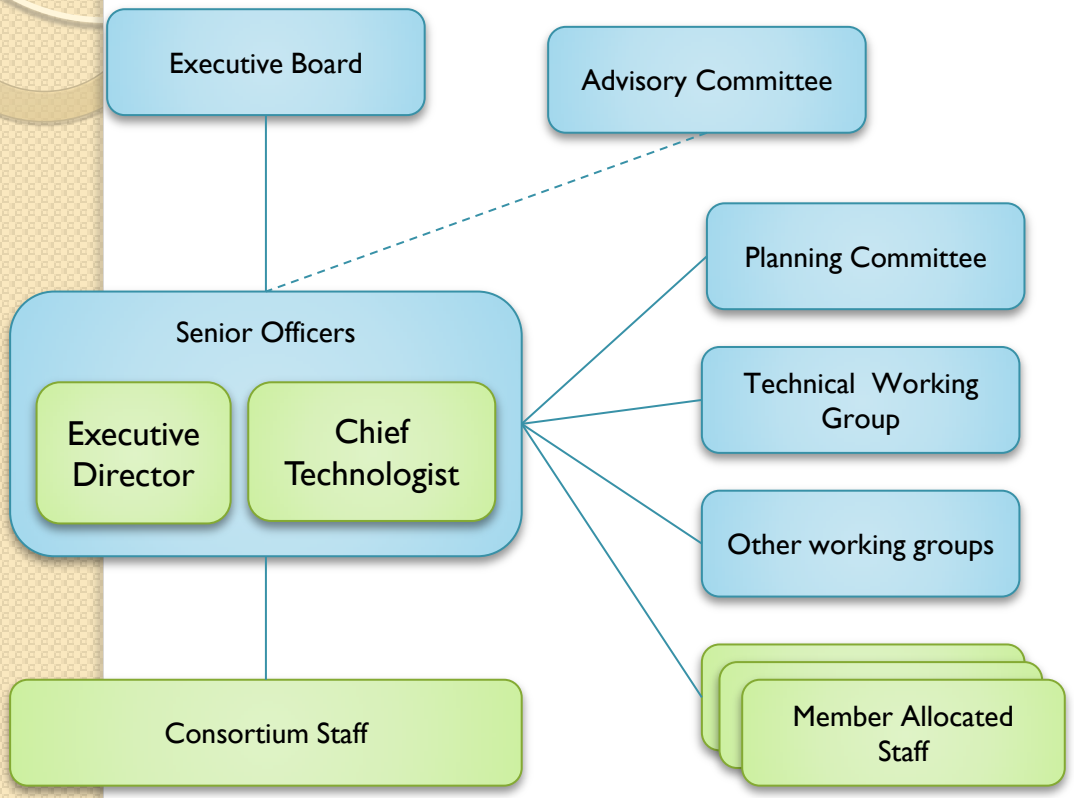
Membership Benefits

- *Founding and Sustaining Members:*
  - Votes on the governance board
  - Greatest level of free support and prioritized support
  - Founders: RENCI, DICE, members of the Max Planck Society

- *Professional Members:*
  - Votes on software release roadmaps
  - Intermediate level of free and prioritized support
  - Professional benefits: marketing, events, hosting, contracts, targeting of vertical solutions, …

- *General Members:*
  - Seat at the table on roadmaps, working groups, …
  - Basic level of free and prioritized support

Consortium Structure

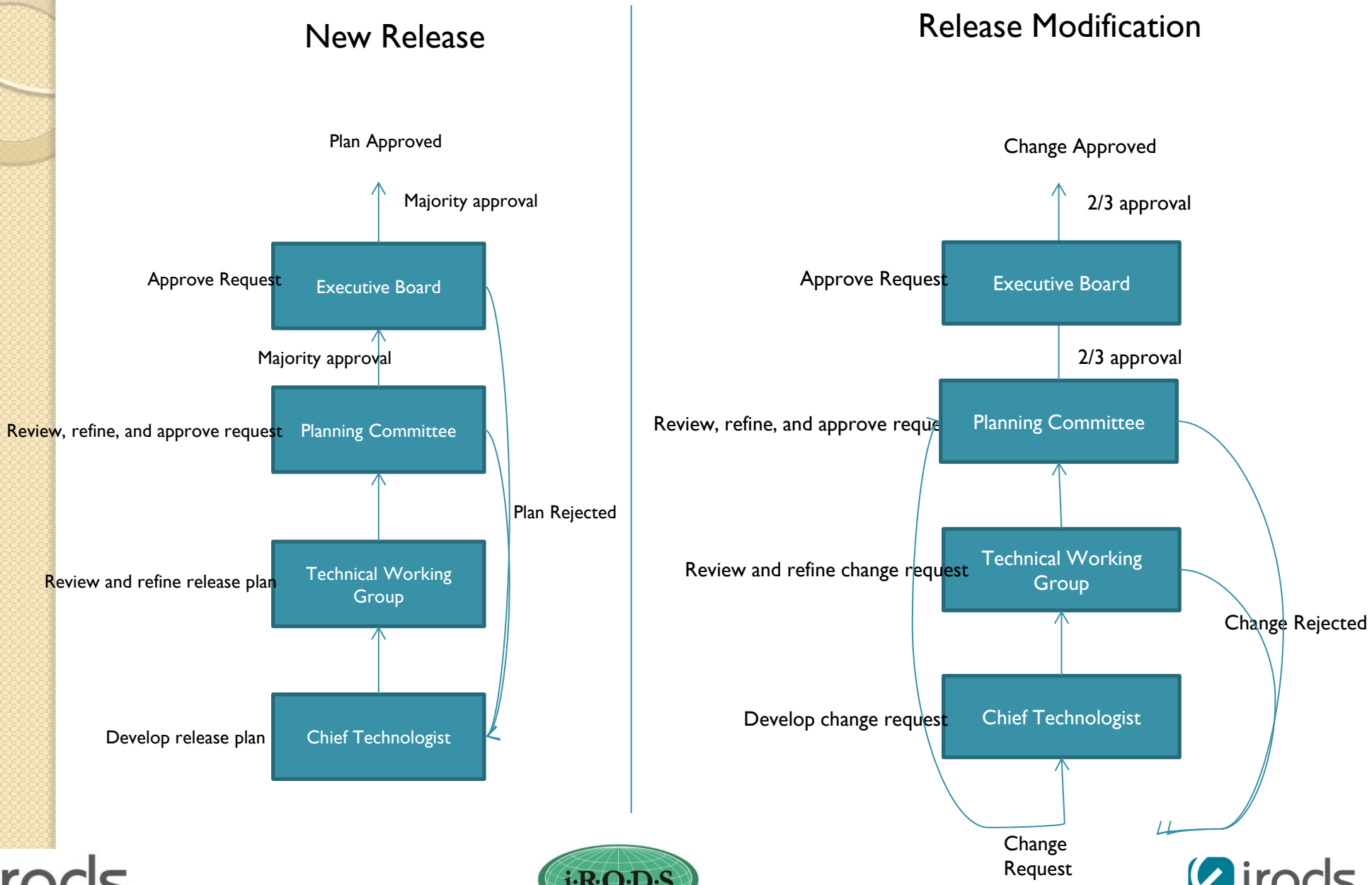


- Develop E-iRODS distributions
- Develop E-iRODS/iRODS extensions
- Certified testing
- Support, consulting, training
- Evolving architectural standards, use patterns,…
- Promoting iRODS
  Documentation, use cases, white papers, vertical solutions, …

DICE, RENCI, and MPS will have seats on the board

Technical Working Group started 12/2012

Software roadmap release planning/change process



irods CONSORTIUM

i·R·O·D·S Integrated Rule-Oriented Data System

irods

E-iRODS Consortium Roadmap

- Initial discussions and market surveys: mid-late 2012
    - Drafting of initial procedural documents: late 2012
- Announce intention to form in partnership with DICE, RZG: November 2012
    - Refinement of procedural documents: early 2013
- First formal meeting of the Founding Members/Executive Board: 2/27/2013
    - Minor changes to founding documents: next two weeks
- Initial membership drive: 3/2013+
- Meeting with prospective 2013 members: June 20th 2013