

Building Technical Infrastructure for Organizations and Communities

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iRODS

— CONSORTIUM —

renci

RESEARCH \ ENGAGEMENT \ INNOVATION



THE UNIVERSITY
of NORTH CAROLINA
at CHAPEL HILL

Past and Current Lives

- Student Wolfpack Club, NCSU
- Park Scholarships, NCSU
- Alumni Association, NCSU
- Forum/MCP, TextDrive/Joyent
- ClaimID.com
- iRODS, RENCI



RENCI develops and deploys data science cyberinfrastructure that helps researchers in academia, government, and business use data to drive discoveries, innovate, make informed decisions, and spur economic development.

- We build communities of domain scientists, data scientists, technology practitioners, and end users who apply data to catalyze innovation and knowledge discovery.
- We relentlessly improve our competencies in data science and cyberinfrastructure development and deployment, including the entire stack of resources and cloud services known as research cyberinfrastructure.
- We develop models of collaboration that translate our work into scientific, social, and economic innovations.
- We document and share our findings through research publications and educational materials.

<https://renci.org>



The Integrated Rule-Oriented Data System (iRODS) is open source data management software used by research organizations and government agencies worldwide.

iRODS is released as a production-level distribution aimed at deployment in mission critical environments. It virtualizes data storage resources, so users can take control of their data, regardless of where and on what device the data is stored.

iRODS has been deployed in thousands of locations, across industries as diverse as oil and gas, life sciences, physical sciences, archives and records management, and media and entertainment.

<https://irods.org>

Big Picture Considerations

1. Strategy / Planning
2. Tactics / Doing
3. Sustainability / Care and Feeding

Consideration 1 - Strategy / Planning

Identifying Goals and Outcomes

- Use Cases / User Stories
 - Be specific, talk about steps taken, talk about flow
 - Number them for ease of reference
 - Be comfortable with having a lot of these
 - This is the most important step, it drives everything else
- What does success look like?
 - Define metrics and how they will be measured
 - SMART - Specific, Measurable, Achievable, Relevant, Time-Bound
- What does failure look like?
 - Think of effects on community members
 - Think of effects on external collaborators

Consideration 2 - Tactics / Doing

- Information Architecture
 - Stakeholders - Who is the audience? Is there more than one?
 - Naming Things Well
 - Part Truth
 - Part Marketing
 - Zen - these are the same
 - Organization and Layout
 - Must match the mental model of the audience
 - Must teach your mental model to the audience
 - Zen - these are the same
- Technology
 - Selection - may depend on talent in the room
 - Execution - a small matter of typing

Consideration 3 - Sustainability / Care and Feeding

Ownership and Maintenance

- Legal
 - Where is this entity housed?
 - Governance
 - Intellectual Property
- Financial
 - One-time source of funds
 - Ongoing revenue - Internal and/or external
- Technical
 - Changes in people
 - Changes in technology

Lessons Learned

- Respect the process
 - Plan
 - Execute
- Rough consensus is good enough to move forward
- The technology is a means to an end
- Be careful, this might work and last a very long time