

# iRODS

## 4.0 and Beyond

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# State of the Union : Features

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- Feature Compatible with 3.3.1
- Full SSL support with encrypted parallel transfer
- Live Hierarchy Manipulation – move and rename resources in a hierarchy with existing data on the resources
- Added rebalancing as an operation
- Six Plugin Interfaces

# State of the Union : Plugin Interfaces

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- Microservice
- Resource
- Network
- Authentication
- Database
- API

# State of the Union : Existing Plugins

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## Resources:

- Compound
- Deferred
- Load Balanced
- MSO
- Non Blocking
- Passthru
- Random
- Replication
- Round Robin
- Universal MSS
- Unix File System
- Direct Access
- WOS
- HPSS
- S3

## Authentication

- Native
- PAM
- OSAuth
- GSI
- Kerberos

## Network

- SSL
- TCP

## Database

- PostgreSQL
- MySQL
- Oracle

# Point Releases : 4.0 to 4.0.x

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- Run In Place and OSX Support
  - Database Update Mechanism
  - Microservice Template Framework
  - Additional Rebalance Support
  - Additional Options for Setup
  - Security Fixes
  - Bug Fixes
  - Memory Leaks
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- C API Support
  - Complete review and testing of system microservices

# iRODS 4.1

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## Consortium-Driven Road Map via the Technical Working Group

- Architectural Changes ( e.g. Abstract Parallel Transfer )
- Put data with metadata as an atomic operation
- Key-Value passthrough from icommands to plugins
- Support symlink following for recursive puts
- Improved support for file streaming and associated PEPs
- Support user defined service account names during binary installation
- Updates to “imeta set” for consistency

# Further Down the Road

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- Refactoring – Continue migrating to more abstract interfaces ( e.g. Special Collections )
- Plugin Registry – keep track of plugins and state in the catalog
- Plugin Dependency Model – describe interdependencies between plugins, ship groups of plugins as a collective feature
- Improved API Language Support – migration to protobuf