



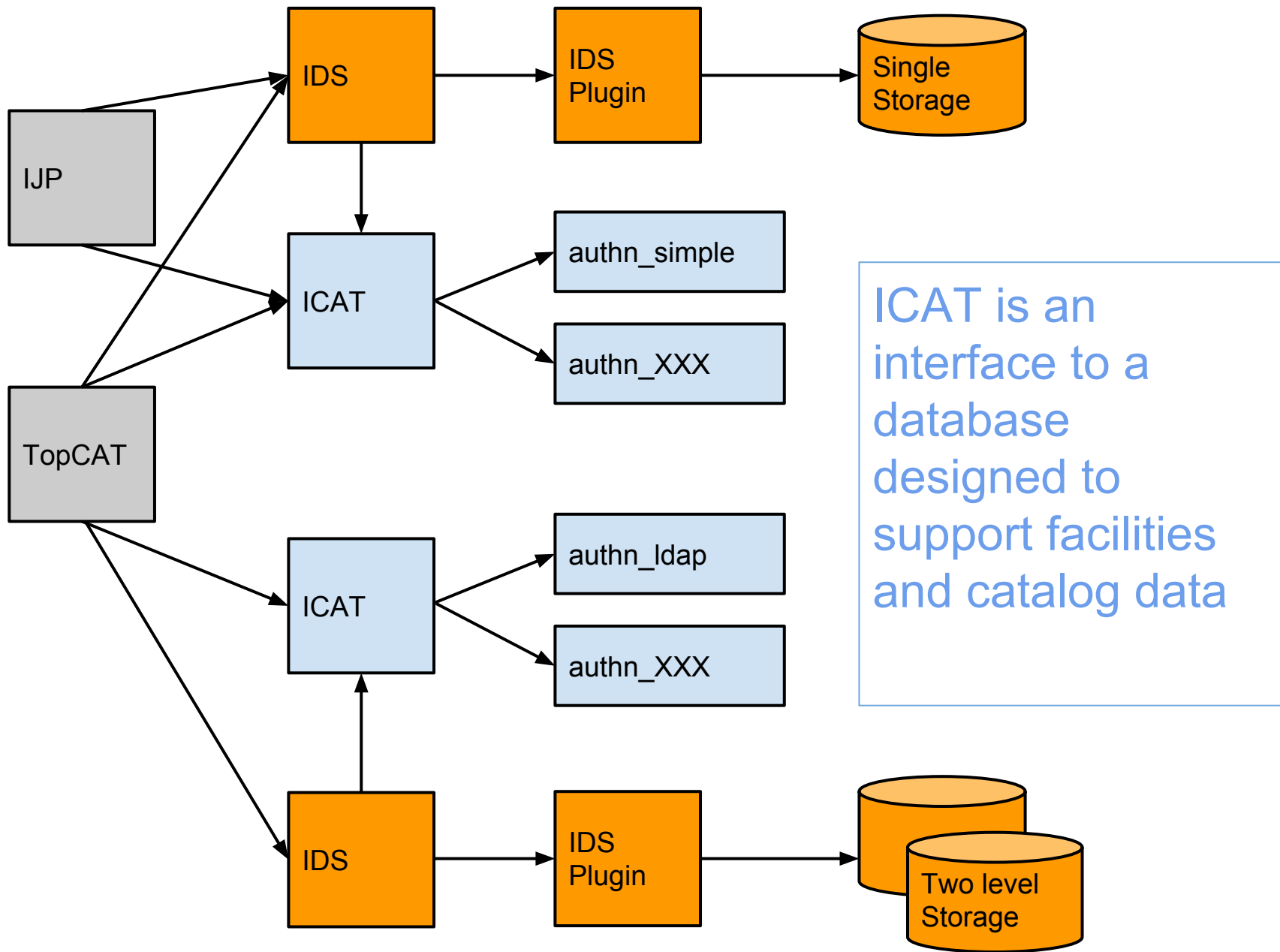
ICAT

Steve Fisher <dr.s.m.fisher@gmail.com>

March/April 2015

Introduction

- I have asked all the speakers when talking about their components to start at the beginning
- Apologies to those who have been using ICAT for years



Installer

A small digression: to demo the installer from:

<http://icatproject.org/installation/quick-starter-installation/>

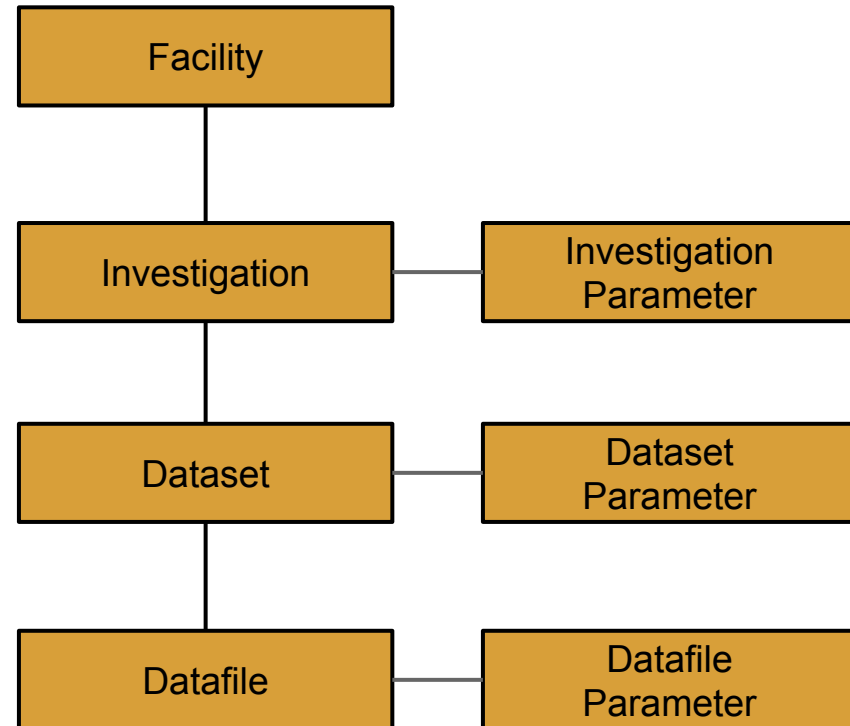
Note that because of refusal of Glassfish to start applications cleanly it may not work first time.

A bit more work needed for Windows

Some problems running from command line in “unattended mode”

ICAT Catalog

- Designed to support scientific facilities
- Aims to cover all needs from proposal to publication.
- ICAT is a database accessed via easy to use APIs (SOAP and REST).
- Authentication makes use of plugins (including Federal Ids and User Office systems).
- Authorization is rule based.
- Around forty different object types available.



- Also: Sample, Instrument, Publication ...
- Object types carry DOIs where relevant
- <http://icatproject.org/user-documentation/icat-schema>

Recent Developments

4.3.3

- Support for multiple ICAT servers to work together
 - Sharing one RDBMS and one lucene index.
 - Made the config operation in the setup script redundant

4.4.0

- Partial “RESTful” interface to sit side by side with the SOAP one
 - Rest is popular and works well with any programming language and supports streaming out of the box
 - Provides functionality of create, search, get and login as well as import/export which does not exist as a SOAP call.
- Properties to define limits to protect ICAT from expensive operations
- .war file rather than .ear which is easier to deploy
- InvestigationGroup introduced

Next releases of ICAT

4.5.0

- Bug fixes
 - Allow queries of the form "SELECT a.b.c FROM ..." This was not documented but used to work in ICAT 4.3 and is standard JPQL.
 - Provide better protection against queries that are getting too large a quantity of data back from the database.
- Removal of Lucene support as the API is about to change

4.6.0

- Reintroduction of Lucene but with ad-hoc calls to support TopCAT2
- Bug fixes

General direction of ICAT

- Resilience
- Multiple ICAT servers
- Robustness of Lucene index access
- Installation to support Wildfly *as well as* Glassfish
- Modify the handling of authz rules to make the RDBMS do more work
- Study of scaling issues