Getting started

DIRAC Tutorial

Outline

- DIRAC information system
    - Documentation sources

  DIRAC users and groups
    - Registration with DIRAC

  Getting DIRAC credentials
    - Getting the certificates right
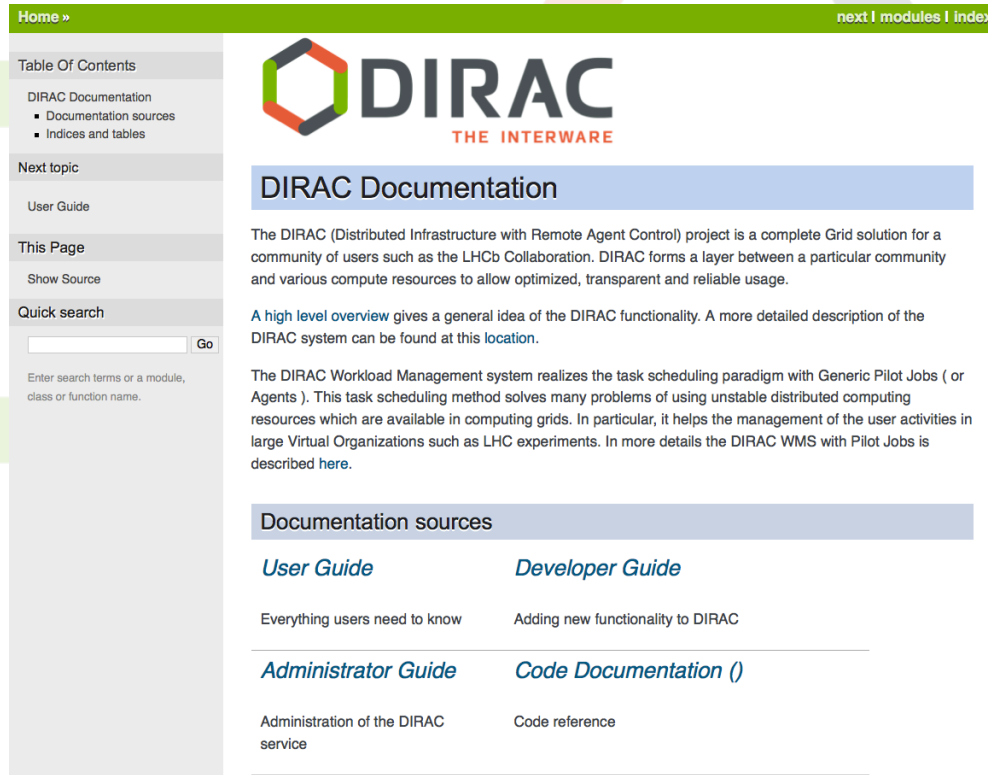   - Registering user proxies

- Web portal interface

- Hello world! job

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http://diracgrid.org

- DIRAC Project Web site contains entry points to various docs

  This is being rapidly developed now, more info to come

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DIRAC users and groups

In order to work with DIRAC users should be registered

> In one or several groups

> For traceability, accounting, etc

User's rights are determined by the *Properties* of the group
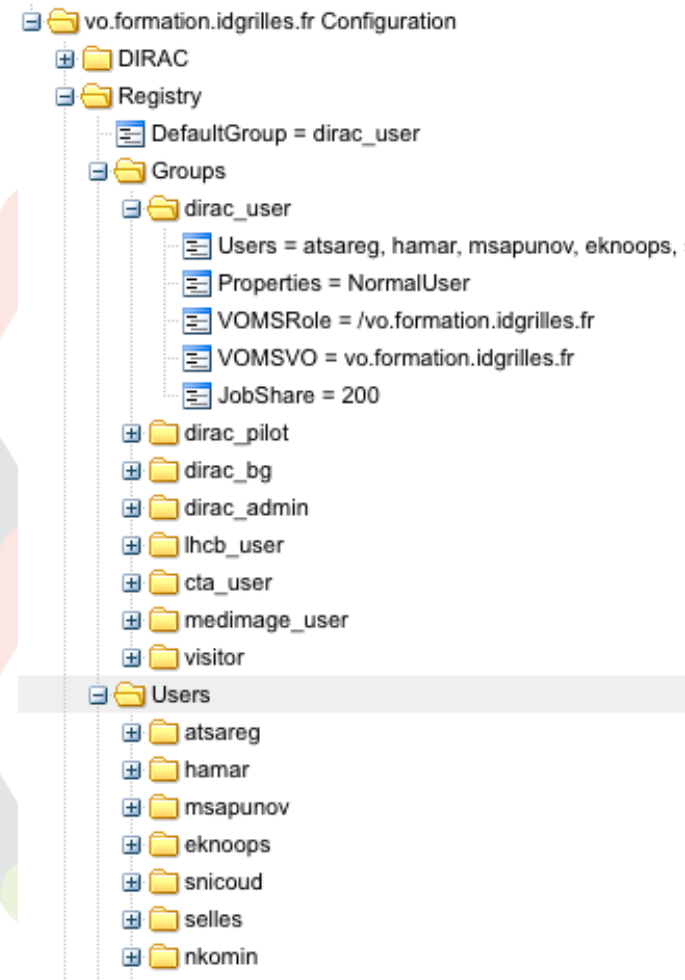
> E.g. *NormalUser* can submit jobs
> but can not change the DIRAC Configuration data

Each group has its share of jobs that it can run

> Determines the group priority

Groups are mapped onto VOMS VO groups/roles

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User credentials

Grid users are identified by their certificates

Individual certificates, X509 PKI infrastructure

Obtaining the certificates is not part of the tutorial

All the students have a generic tutorial certificate

Individual certificates can be used if any

Please, check your case

The students are already registered in the **dirac_user** group

Login names usera, userb, etc

These accounts are temporary

For the real DIRAC account one should get a personal certificate and register with the DIRAC service

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Proxy Management

- DIRAC has a full featured Proxy Management system
  - Secure Proxy repository – ProxyManager service
    - Can be configured to use MyProxy server
  - Supply user proxies to various components
    - Automatic proxy renewal if necessary

Before using DIRAC a long living proxy must be uploaded to the Proxy Repository

In the Web Portal:

https://dirac.france-grilles.fr/DIRAC

- Tools > Upload Proxy
- Choose certificate file
- Provide password

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DIRAC: user interfaces

Web interface – *https://dirac.france-grilles.fr/DIRAC*

    User friendliness is the goal

        That's why we start with this one

    No security compromises

    Stable but based on outdated technology

The new web portal prototype is also ready to use:

    ▸ *https://dirac.in2p3.fr/DIRAC*

But still in rapid development

    Some things to iron out

    More exciting functionalities

    More application specific extensions

User guide:
http://diracgrid.org/files/docs/UserGuide/WebAppUserGuide/index.html

YouTube video course: https://www.youtube.com/watch?v=vKBpEDOIyLc#

Loading certificate into the browser

- Before using the Web portal the user grid certificate must be loaded into the browser

  - Used to authenticate the user to the DIRAC services

  Firefox

  - Preferences > Advanced > Encryption > View Certificates
  - Import certificate
    - From .p12 file
    - Password required

  Exporting certificate in Firefox

  - Preferences > Advanced > Encryption > View Certificates
  - Backup certificate

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Web Portal: job submission

Launchpad applet

 Tools > Launchpad

Job submission with the real owner credentials

Job description

 Executable, arguments

 Sandboxes

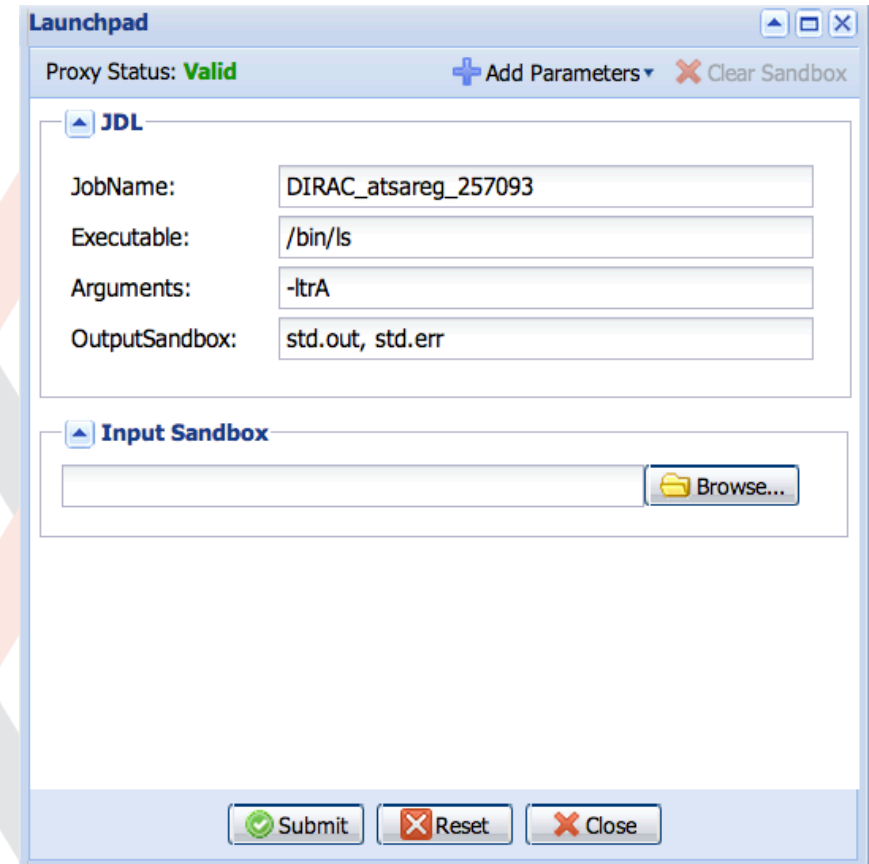 Input/Output data

 Extra parameters
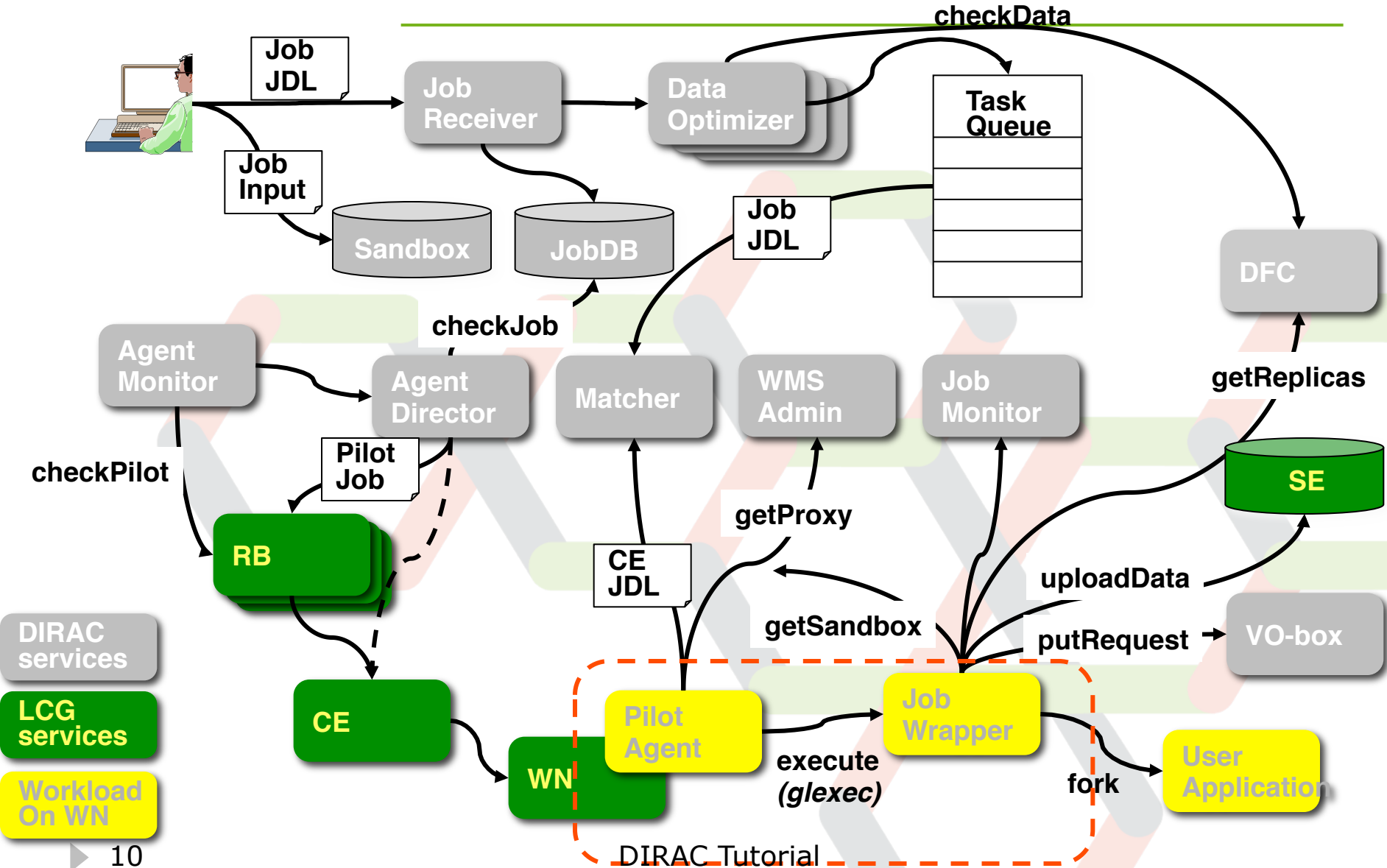
Input Sandbox

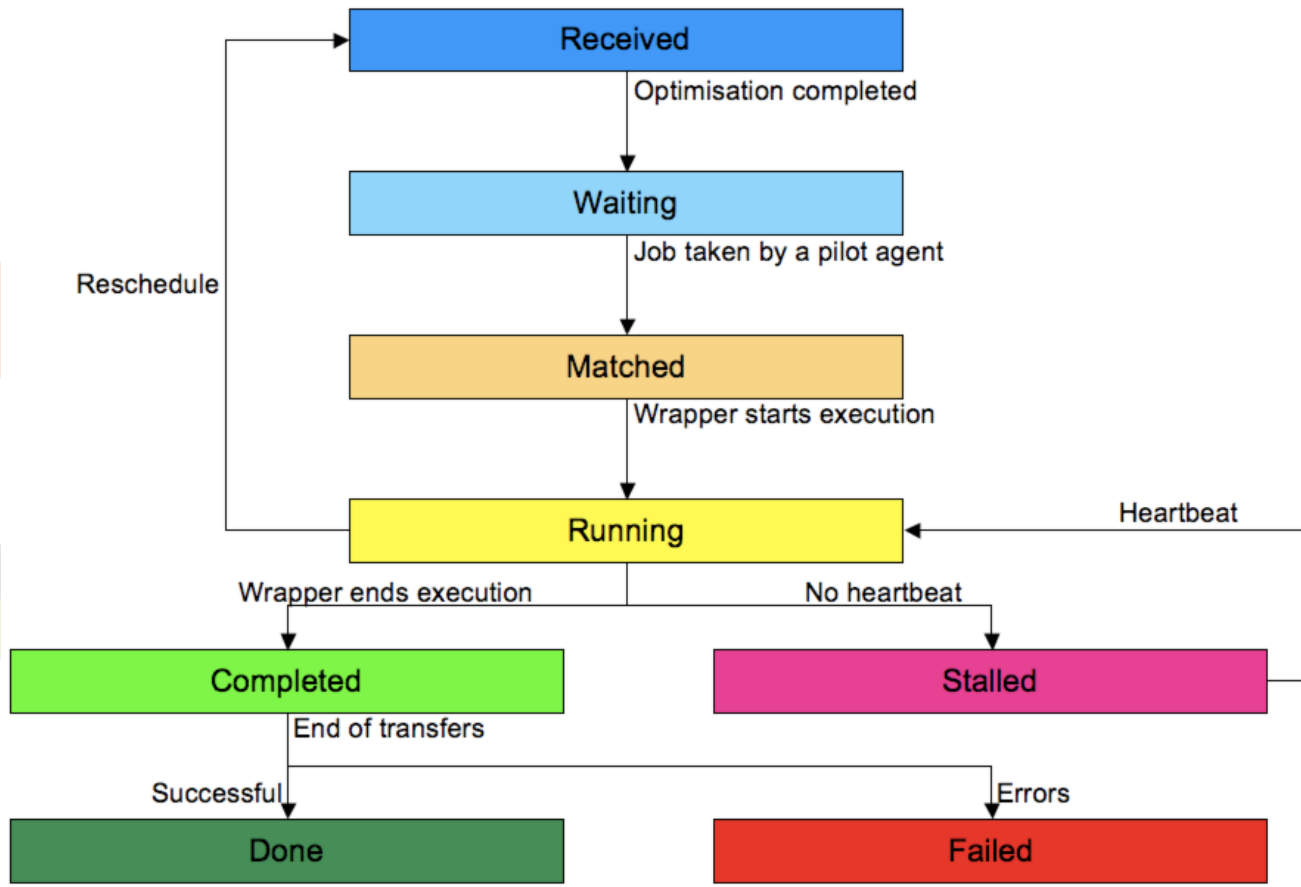 Upload local files

Simple application

 Mostly for demonstration purposes

 Evolving into a more versatile toole

DIRAC job life cycle

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Job state machine

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Job Monitoring

Job Monitoring page

Everything you need to know about your jobs

Use *Help* button for detailed explanations

Job Menu

Job info

Actions
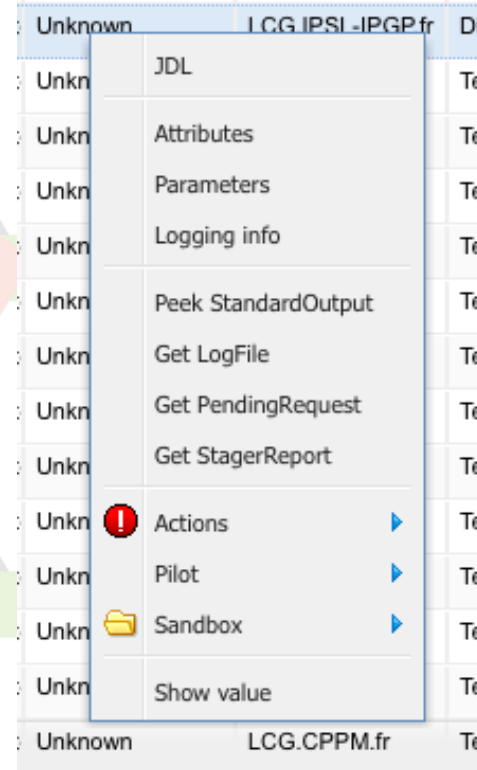
▸ Reschedule, delete, kill

Pilot output access

Useful for debugging

Sandbox download

Job selections

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Submit "Hello, world!" job with Web Launchpad

Basic job description

Monitor it

Get results

Submit job with Input and Output Sandbox

Simple processing

Getting results

Goals

Understand job description

Understanding job Web monitoring and manipulation tools

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