



User job with the Web Portal

DIRAC Project



Outline

- ▶ DIRAC user interfaces
- ▶ Web Portal
- ▶ General layout
- ▶ User tasks





DIRAC: user interfaces

- ▶ **Unix command line interface**
 - ▶ Historically the first one
 - ▶ Suitable for unix addicts
 - ▶ Easy to use in shell scripts
 - ▶ Too many commands
 - ▶ Even more switches
- ▶ **Python API**
 - ▶ Originally for DIRAC developers
 - ▶ More users are starting to use it
 - ▶ The most versatile
 - ▶ Build your own DIRAC applications





DIRAC: user interfaces

- ▶ **Web interface**
 - ▶ Relatively recent addition to DIRAC
 - ▶ User friendliness is the goal
 - ▶ That's why we start with this one
 - ▶ No security compromises
 - ▶ Less flexibility than with other interfaces
 - ▶ But still in rapid development
 - ▶ More exciting functionalities
 - ▶ More application specific extensions





DIRAC: Secure Web Portal

- ▶ **Web portal with intuitive desktop application like interface**
 - ▶ Ajax, Pylons, ExtJS Javascript library
- ▶ **Monitoring and control of all activities**
 - ▶ User job monitoring and manipulation
 - ▶ Data production controls
 - ▶ DIRAC Systems configuration
- ▶ **Secure access**
 - ▶ Standard grid certificates
 - ▶ Fine grained authorization rules





Web Portal: user tasks

- ▶ **Job submission**
 - ▶ Demonstrator
- ▶ **Job Monitoring**
 - ▶ Job status, access to the results
- ▶ **Data discovery**
 - ▶ E.g. LHCb Bookkeeping database interface
 - ▶ Generic Catalog Browser to come
- ▶ **Administrative tasks**
 - ▶ Configuration management
 - ▶ Users and groups, community policies
 - ▶ Accounting, services monitoring
- ▶ **Specific application Web Portals can be derived**
 - ▶ Community Application Servers
 - ▶ All the grid computational tasks steered on the web
 - ▶ E.g. LHCb Production Management System





The screenshot displays the Job Monitoring interface with the following numbered callouts:

- 1**: Points to the "Systems" menu item.
- 2**: Points to the "Jobs" menu item.
- 3**: Points to the "Production" menu item.
- 4**: Points to the "Select All" checkbox.
- 5**: Points to the "Selected setup: EELA-Production" dropdown menu.
- 6**: Points to the "jobs > Job monitor" link in the "Current Statistics" section.
- 7**: Points to the "Submit" button.
- 8**: Points to the "Page 3 of 5" pagination control.
- 9**: Points to the "Items displaying per page: 50" control.
- 10**: Points to the "Items displaying per page: 50" control.
- 11**: Points to the "hamar" user name in the footer.
- 12**: Points to the "ella_user" user name in the footer.
- 13**: Points to the footer text "VO=GRID-FR/C=VF/O=UJA/OU=CECAL/OU=CN=Vanessa Hamar".
- 14**: Points to the "Reschedule" button in the table header.



Web Portal: general layout

1. **Main Menu:** This menu offers options for systems, jobs, tools and help.
2. **Selections:** Shows a set of selectors than permits generate customs selections.
3. **Buttons to open/collapse panels:** Permit open or collapse left menu.
4. **Actions to perform for job(s):** These actions permits select all, select none, reset, kill or submit
5. **Menu to change DIRAC setup:** Users can change between different setups.
6. **Current location:** Indicates where the user is located inside the portal.
7. **Buttons to submit or reset the form:** After options are selected its possible to submit and execute the selection or reset the selectors.
8. **Pagination controls:** Permits navigate between the pages, and also show in which page the user is navigating.
9. **Refresh table:** Reload the page without loose the previous selection and show the new status.
10. **Items per page:** This option allow the users to specify how many items are going to be displayed by page.
11. **User DIRAC login:** Login assigned to the user connected to DIRAC web portal.
12. **DIRAC Group:** The user could belong to different groups and perform actions depending of the group previously selected.
13. **Certificate DN:** Web portal shows the distinguish name of user certificate what is being used to realize the connection.
14. **Index items displayed:** Display the range of items displayed in the page.





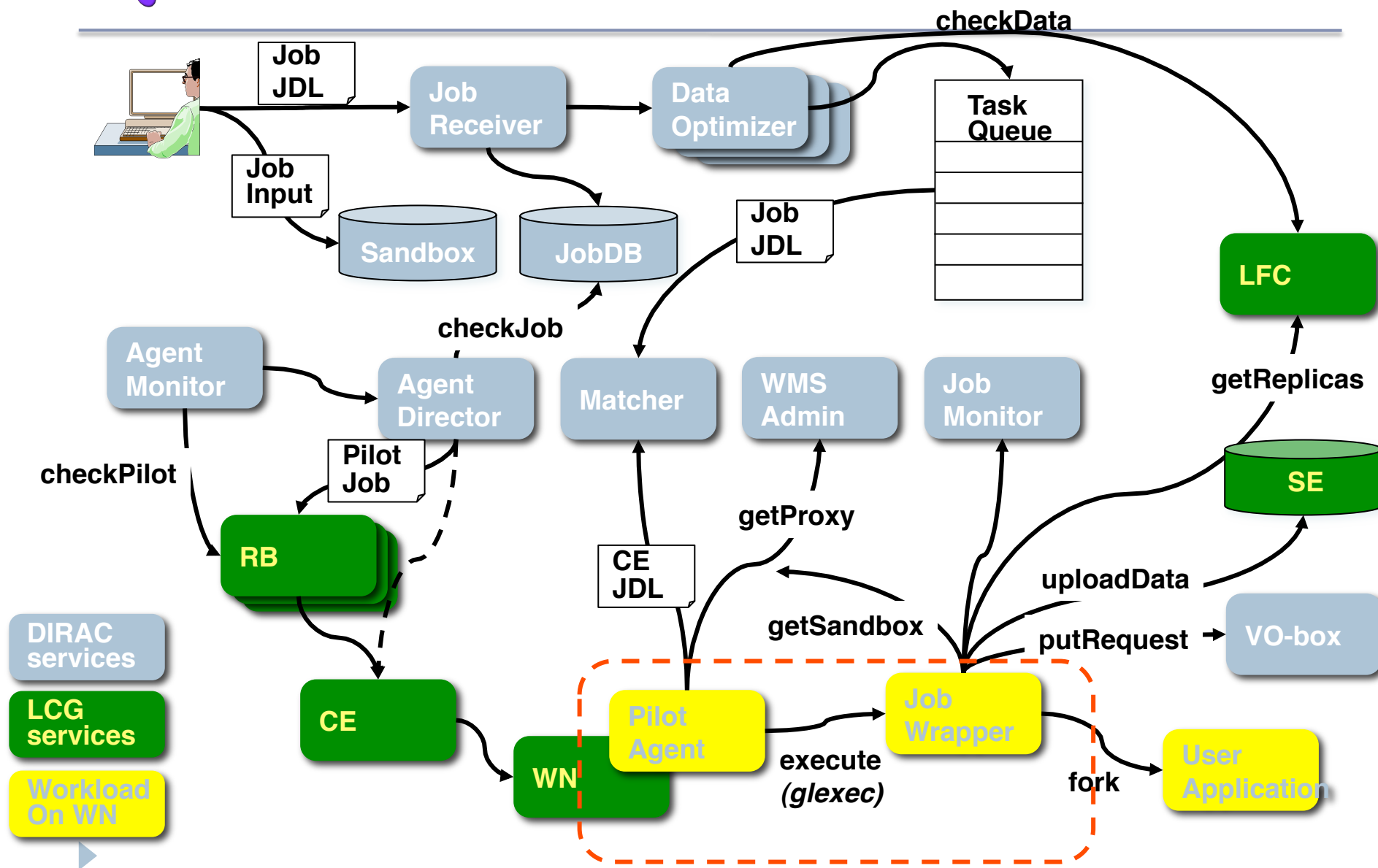
Web Portal: job submission

- ▶ Launchpad applet
 - ▶ Jobs > JobMonitoring > Tools
- ▶ 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

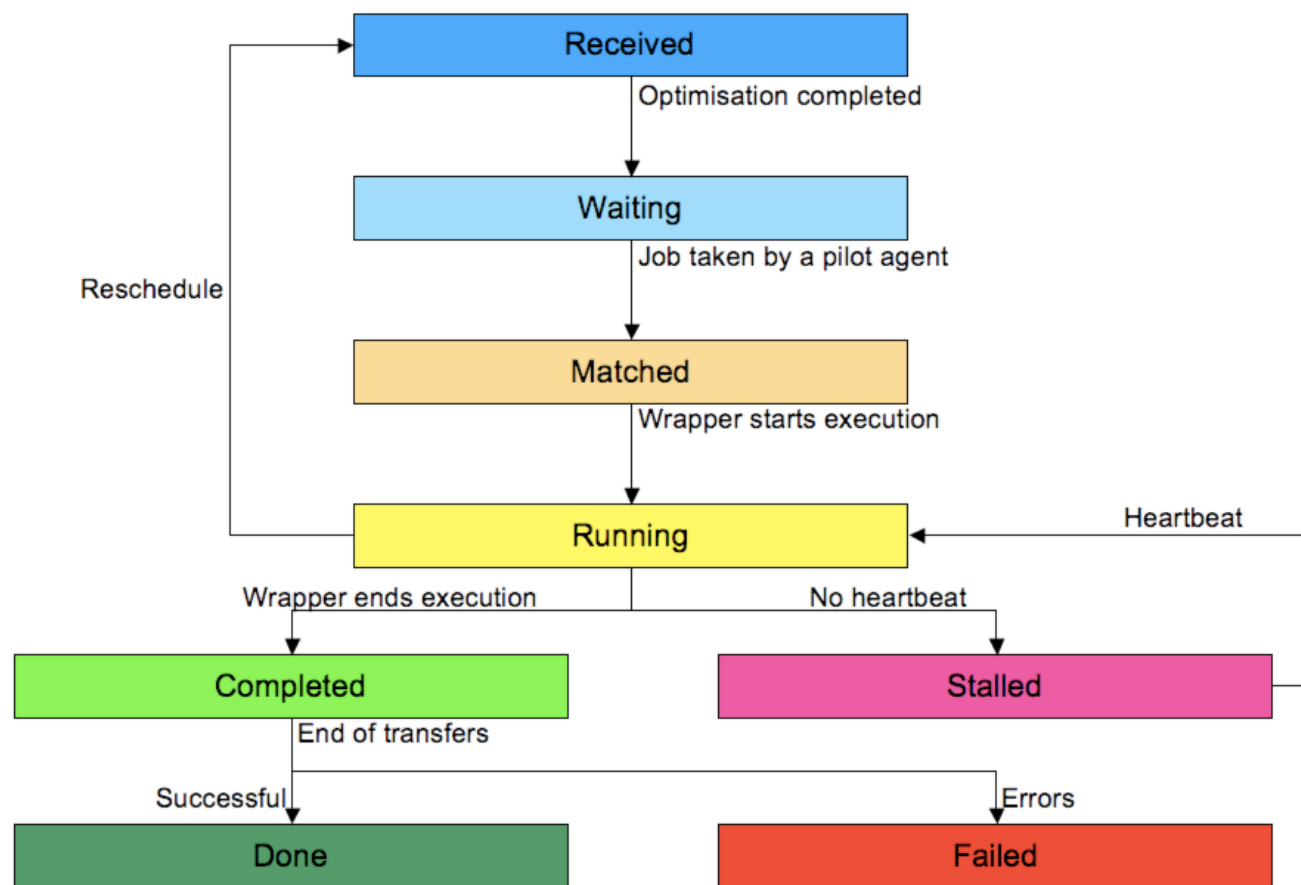
A screenshot of the 'Launchpad' web application. The window has a title bar with standard OS controls. Below the title bar, it says 'Proxy Status: Valid' in green, followed by '+ Add Parameters' and 'X Clear Sandbox'. The main content area is divided into two sections. The first section, titled 'JDL', contains four input fields: 'JobName:' with the value 'DIRAC_atsareg_411113', 'Executable:' with '/bin/lis', 'Arguments:' with '-ltrA', and 'OutputSandbox:' with 'std.out, std.err'. The second section, titled 'Input Sandbox', features a large blue progress bar and a 'Browse...' button with a folder icon. At the bottom of the window, there are three buttons: 'Submit' with a green checkmark, 'Reset' with a red X, and 'Close' with a red X. The background of the page shows a table with job scheduling information, including columns for job name, status, and dates.



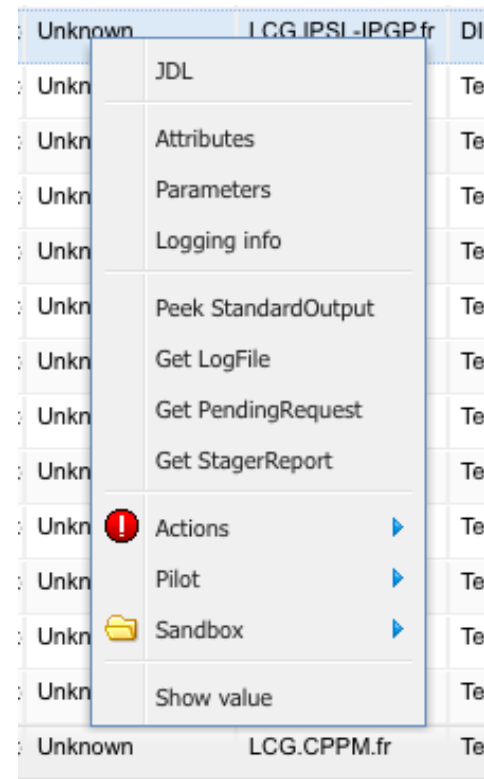
DIRAC job life cycle



Job state machine



- ▶ 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





Tutorial

- ▶ **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

