

AliEn Services

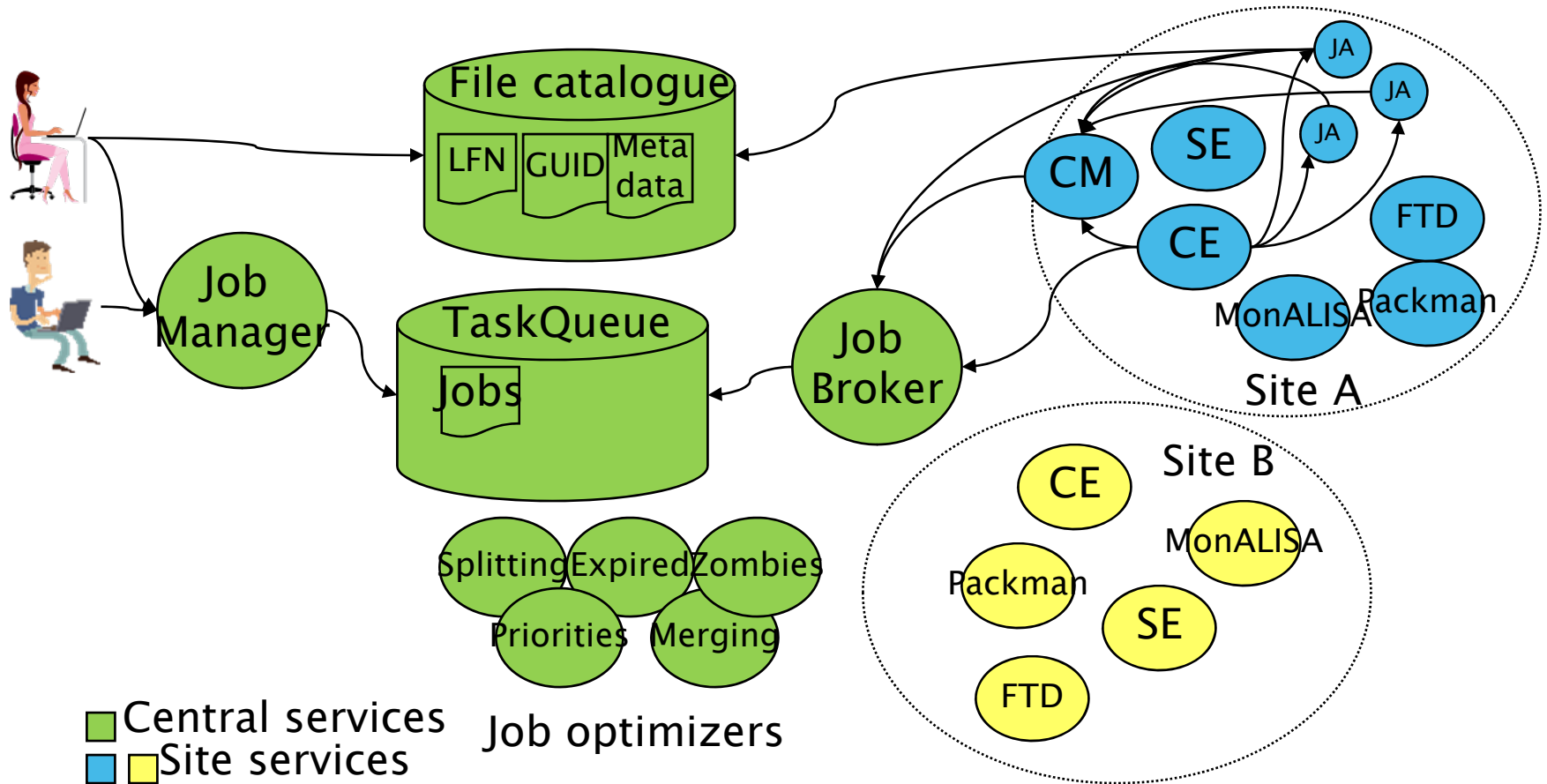
ALICE T1 / T2 tutorial



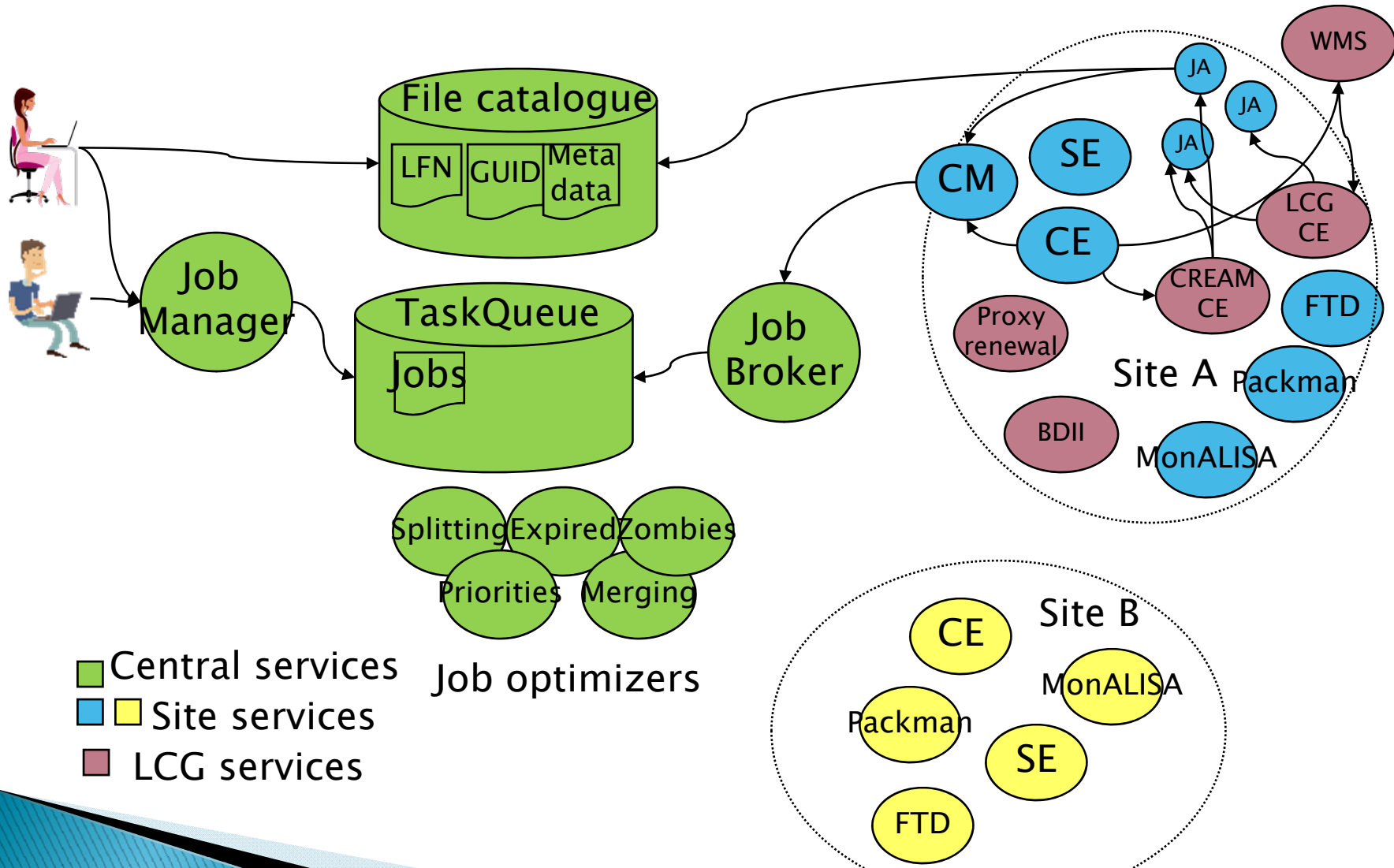
Table of contents

- ▶ AliEn model
- ▶ Installation
- ▶ AliEn site services
 - ClusterMonitor
 - PackMan
 - CE
 - SE
 - FTD
 - MonaLisa
- ▶ Conclusion

Job execution model



AliEn + LCG services



AliEn installation

- ▶ wget <http://alien.cern.ch/alien-auto-installer>
- ▶ chmod +x ./alien-auto-installer
- ▶ ./alien-auto-installer

- ▶ Automatic installation
- ▶ Check if latest version already installed
- ▶ Possibility to have several versions
- ▶ For the brave: <http://alien.cern.ch/alient-torrent-installer>

Installation example

- Less than 3 min (for a vbox inst)
- 15 sec for a wn inst
- Default values
- Check current version
- Multiple versions

```
psaiz@pcarda10:~ - Shell No. 8 - Konsole
Session Edit View Bookmarks Settings Help
[pcarda10] /home/psaiz > wget http://alien.cern.ch/alien-auto-installer
--11:53:26-- http://alien.cern.ch/alien-auto-installer
=> `alien-auto-installer'
Resolving alien.cern.ch... 137.138.99.142
Connecting to alien.cern.ch|137.138.99.142|:80... connected.
HTTP request sent, awaiting response... 200 OK
Length: 10,309 (10K) [text/plain]

100%[=====] 10,309  ---K/s

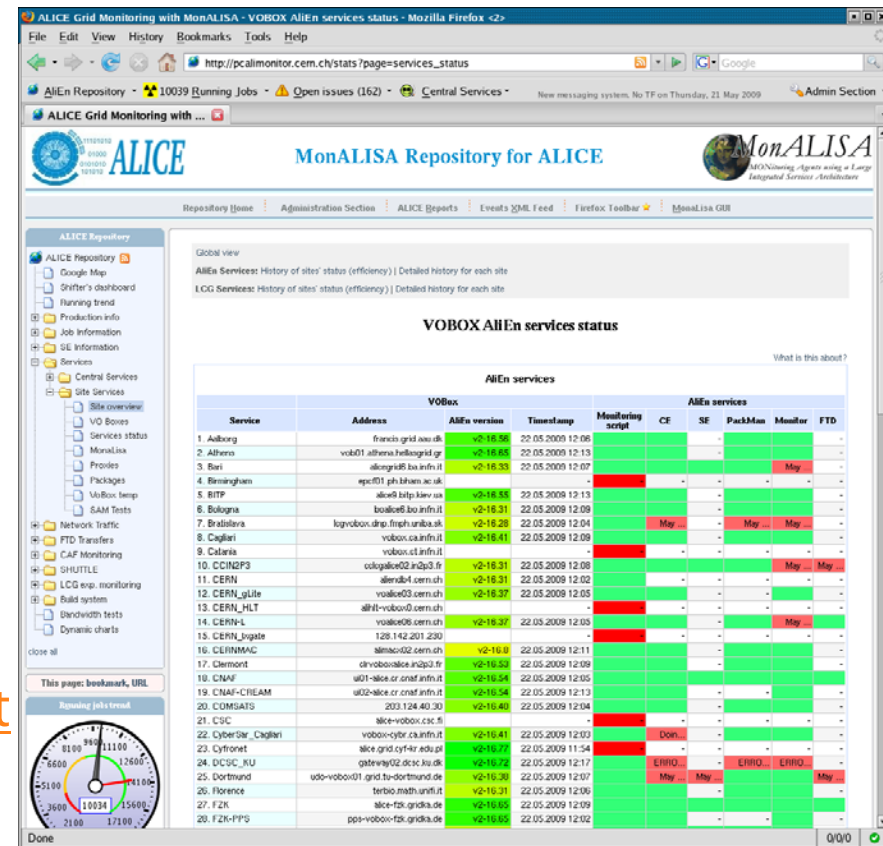
11:53:27 (15.58 MB/s) - `alien-auto-installer' saved [10309/10309]

[pcarda10] /home/psaiz > chmod +x alien-auto-installer
[pcarda10] /home/psaiz > ./alien-auto-installer
This is going to do an automatic installation of alien (NOBYPASS!!!)
Installing in /home/psaiz/alien (use ALIEN_INSTALLER_PREFIX to change it)
Installing the version 'v2-16'
Taking the current platform (i686-pc-linux-gnu) (use ALIEN_INSTALLER_PLATFORM if you want another one)
Checking the version currently installed
Checking the version that we would install (if it is newer than v2-16.41)
Ready to install v2-16.70
Installing the components gshell+site+lcg+monitor (use ALIEN_INSTALLER_TYPE to change it)
This corresponds to vbox

I am sleeping for 10 seconds to give you time to cancel...
Let's go!!
Ready to download the file
Let's get the file
Getting http://alienbuild.cern.ch:8880/i686-pc-linux-gnu/v2-16/download/alien-v2-16-vobox.tar.bz2
11:53:57 URL:http://alienbuild.cern.ch:8880/i686-pc-linux-gnu/v2-16/download/alien-v2-16-vobox.tar.bz2 [128888814/128888814] -> "alien.tar.gz" [1]
Extracting the files
Relocating the installation
The installation finished
Updating the link /home/psaiz/alien
[pcarda10] /home/psaiz > date
Fri May 22 11:56:08 CEST 2009
```

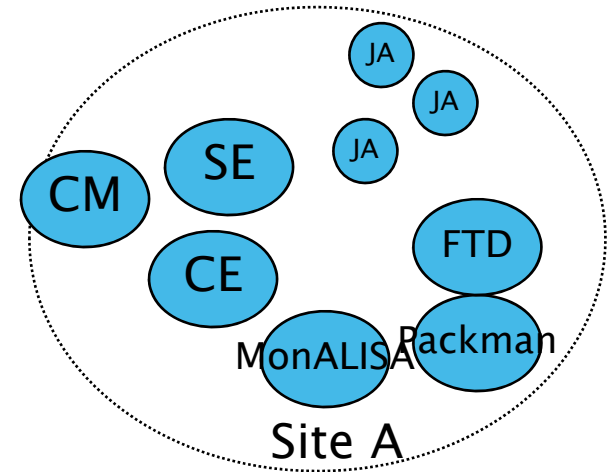
AliEn updates

- ▶ Triggered centrally
- ▶ Requirements:
 - MonALISA running
 - Writing access to the software area
 - Enough disk space
- ▶ How to see the version:
 - alien -version
 - http://pcalimonitor.cern.ch/stats?page=services_status



AliEn site services

- ▶ On the vobox:
 - ClusterMonitor (CM)
 - PackMan
 - CE
 - SE
 - FTD
 - MonALISA
- ▶ On the worker node:
 - JobAgent (JA)



Service & site configuration

- ▶ LDAP server: alice-ldap.cern.ch:8389
- ▶ Site selected according to domain (or ALIEN_DOMAIN)

The screenshot shows the Luma LDAP browser interface. The left pane displays a tree view of LDAP entries, with 'ou=Prague' selected. The right pane shows the details for the selected entry, including its Distinguished Name, Object Classes, and a list of attributes.

Distinguished Name: ou=Prague,ou=Sites,o=alice,dc=cern,dc=ch

ObjectClasses: top, organizationalUnit, AliEnSite

Attributes:

Attribute	Value	Icon
accountName	Prague	🔍 ✖
administrator	Jiri Chudoba , Dagmar Adamova	🔍 ✖
cachedir	/scratch/ALICE/cache	🔍 ✖
closese	ALICE::Prague::Disk2	🔍 ✖
country	Czech Republic	🔍 ✖
domain	farm.particle.cz	🔍 ✖
localconfig	add	🔍 ✖
location	Prague	🔍 ✖
logdir	/var/local/alicesgm	🔍 ✖
longitude	14.4766667	🔍 ✖
ou	Prague	🔍 ✖
tmpdir	/scratch/ALICE/tmp	🔍

Search request reached server side size limit!

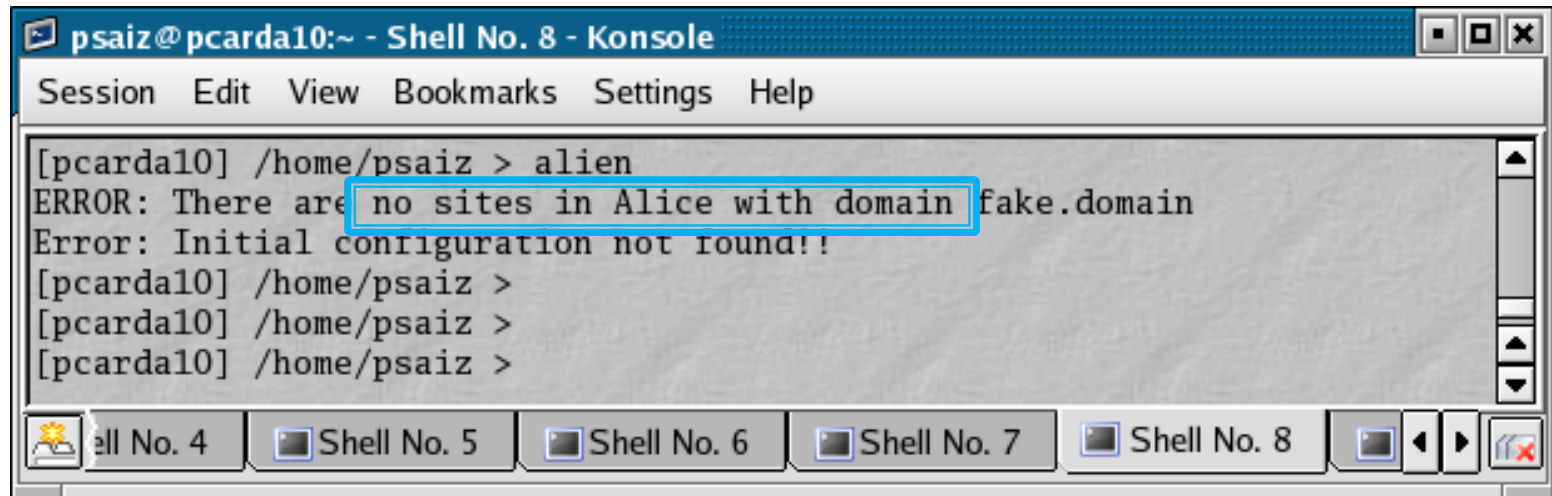
Local configuration files

- ▶ `$ALIEN_ROOT/.Environment` (bash script)
 - Should contain: `ALIEN_ROOT`, `GLOBUS_LOCATION`, `PATH`, `LD_LIBRARY_PATH`, ...
- ▶ `$HOME/.alien/Environment` (bash script)
 - Can include `ALIEN_USER`, `ALIEN_DOMAIN`, ...
- ▶ `$HOME/.alien/<vo>.conf`
 - Only allowed on certain hosts, during debugging
 - Modifies things defined in the central LDAP
 - http conf syntax

X509 authentication

- ▶ Assuming that X509_USER_PROXY points to a valid proxy
 - See Patricia's talk
- ▶ Usually, \$HOME/.alien/globus has usercert.pem, userkey.pem
 - chmod 700 userkey.pem
 - alien proxy-init

Possible errors... (1)



The screenshot shows a terminal window titled "psaiz@pcarda10:~ - Shell No. 8 - Konsole". The window contains the following text:

```
[pcarda10] /home/psaiz > alien
ERROR: There are no sites in Alice with domain fake.domain
Error: Initial configuration not round!!
[pcarda10] /home/psaiz >
[pcarda10] /home/psaiz >
[pcarda10] /home/psaiz >
```

The error message "ERROR: There are no sites in Alice with domain fake.domain" is highlighted with a blue box. The terminal window also shows a menu bar with "Session", "Edit", "View", "Bookmarks", "Settings", and "Help". At the bottom, there are tabs for "Shell No. 4", "Shell No. 5", "Shell No. 6", "Shell No. 7", and "Shell No. 8".

▶ Solutions:

- Give the site details to the VO admin (Latchezar)
- Use 'export ALIEN_DOMAIN=<existing domain>'

Possible errors... (2)

```
psaiz@pcegee02:~ - Shell No. 7 - Konsole <2>
Session Edit View Bookmarks Settings Help

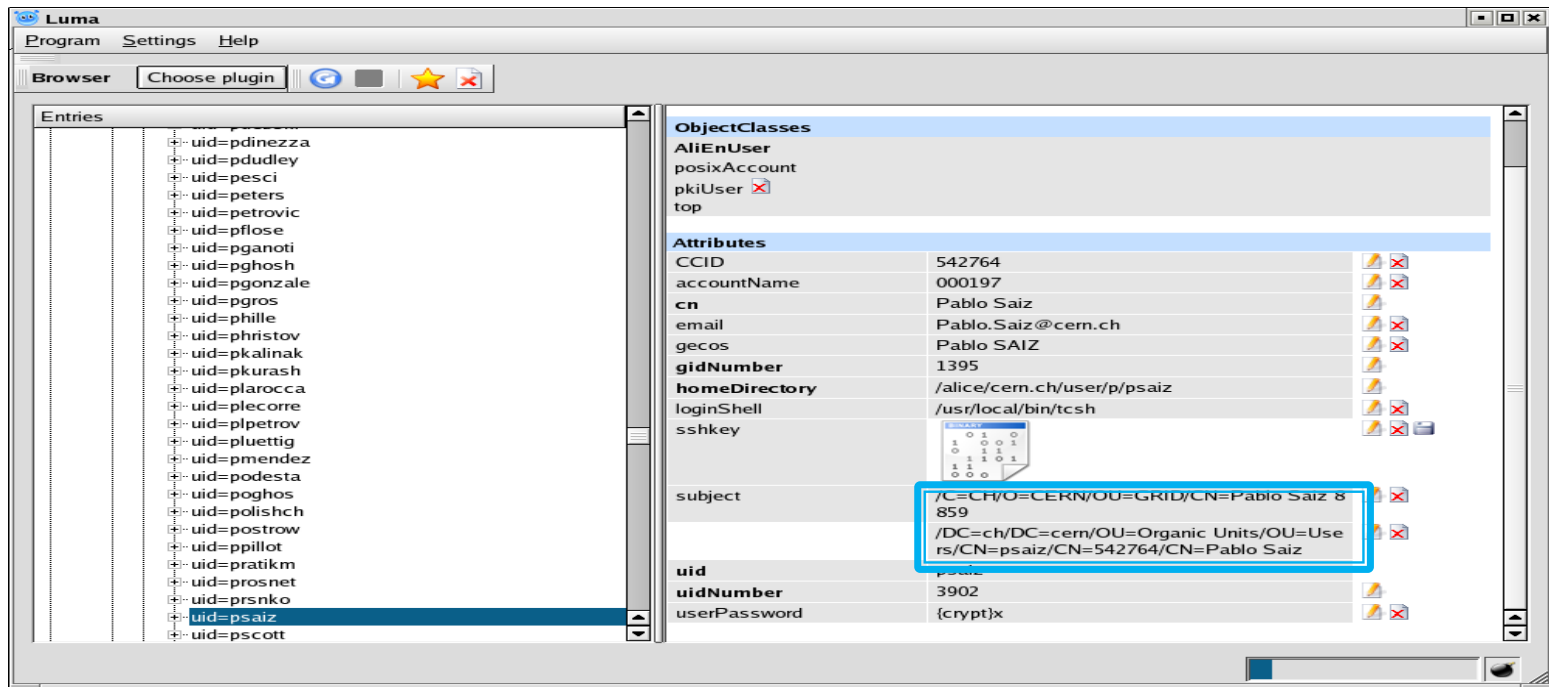
[voalice06] /etc/grid-security/certificates > alien
May 22 17:45:09 info Hello ALICE::CERN::SE
Warning: No valid proxy. Trying SSH key...
Use of uninitialized value in concatenation (.) or string at /afs/cern.ch/alice/alien2/.i386_linux24/alien.v2-16.56/lib/perl5/site_perl/5.8.8/AliEn/Authen/ClientVerifier.pm line 350.
Use of uninitialized value in length at /afs/cern.ch/alice/alien2/.i386_linux24/alien.v2-16.56/lib/perl5/site_perl/5.8.8/AliEn/Authen/ClientVerifier.pm line 355.
An error occurred during AliEn authentication:
May 22 17:45:10 info Could not connect to database: Not able to authenticate (1)
Database: In _validateUser validation of user pmendez (as pmendez) failed.
```

▶ Solution:

- Make sure that X509_USER_PROXY points to the right proxy!
- alien proxy-init

AliEn users vs. AliEn roles

- ▶ All the ALICE users are registered in LDAP



- ▶ Site administrators can become production user (aliproduct). 'alien -role aliproduct'

Possible errors... (3)

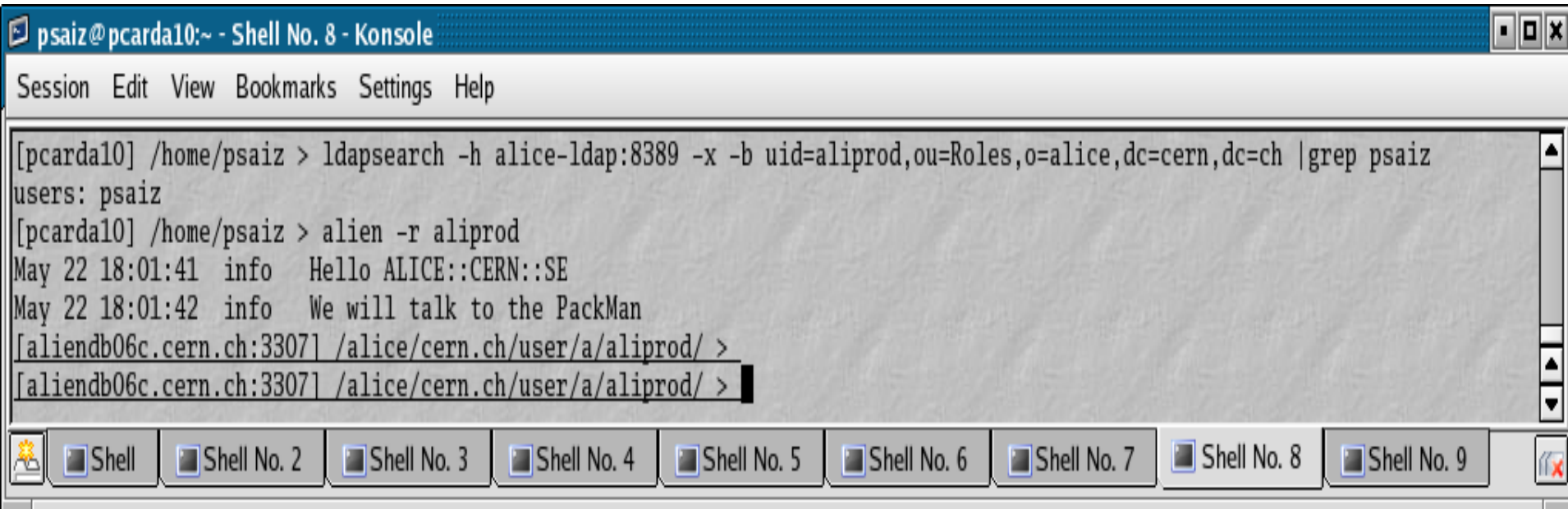
```
psaiz@pcarda10:~ - Shell No. 8 - Konsole
Session Edit View Bookmarks Settings Help

[pcarda10] /home/psaiz > alien -r aliproduct
May 22 17:56:08 info Hello ALICE::CERN::SE
An error occurred during AliEn authentication:
May 22 17:56:08 info Could not connect to database: Not able to authenticate (1)
Database: In _validateUser validation of user psaiz (as aliproduct) failed.
[pcarda10] /home/psaiz > ldapsearch -h alice-ldap:8389 -x -b uid=aliproduct,ou=Roles,o=alice,dc=cern,dc=ch |grep psaiz
[pcarda10] /home/psaiz >
```

▶ Solution:

- The VO admin will add your name to the 'production user' in LDAP
- It might take up to 10 minutes for changes in LDAP to propagate
 - (VO admin: use resyncLDAP)

How it is suppose to look...



```
psaiz@pcarda10:~ - Shell No. 8 - Konsole
Session Edit View Bookmarks Settings Help

[pcarda10] /home/psaiz > ldapsearch -h alice-ldap:8389 -x -b uid=aliprod,ou=Roles,o=alice,dc=cern,dc=ch |grep psaiz
users: psaiz
[pcarda10] /home/psaiz > alien -r aliprod
May 22 18:01:41 info Hello ALICE::CERN::SE
May 22 18:01:42 info We will talk to the PackMan
[aliendb06c.cern.ch:3307] /alice/cern.ch/user/a/aliprod/ >
[aliendb06c.cern.ch:3307] /alice/cern.ch/user/a/aliprod/ >
```

- ▶ See <http://alien.cern.ch/twiki/bin/view/AliEn/HowToUseAliEn> to see what to do in within the alien catalogue...

Starting and stopping services

- ▶ Two ways:
 - Manually: `alien (Start|Stop|Status)<service>`
 - Automatic: `aliend start|stop|status`
 - MonALISA will be able to restart other services
- ▶ And check the log files!!
 - `$LOGDIR/<Service>.log`

How to setup aliend

- ▶ Create `$HOME/.alien/etc/aliend/startup.conf`
 - `ALIEN_ORGANISATIONS="ALICE"`
- ▶ Create `$HOME/.alien/etc/aliend/ALICE/startup.conf`
 - `AliEnUser=psaiz`
 - `AliEnCommand="$HOME/alien/bin/alien"`
 - `AliEnServices="MonaLisa CE SE PackMan Monitor"`

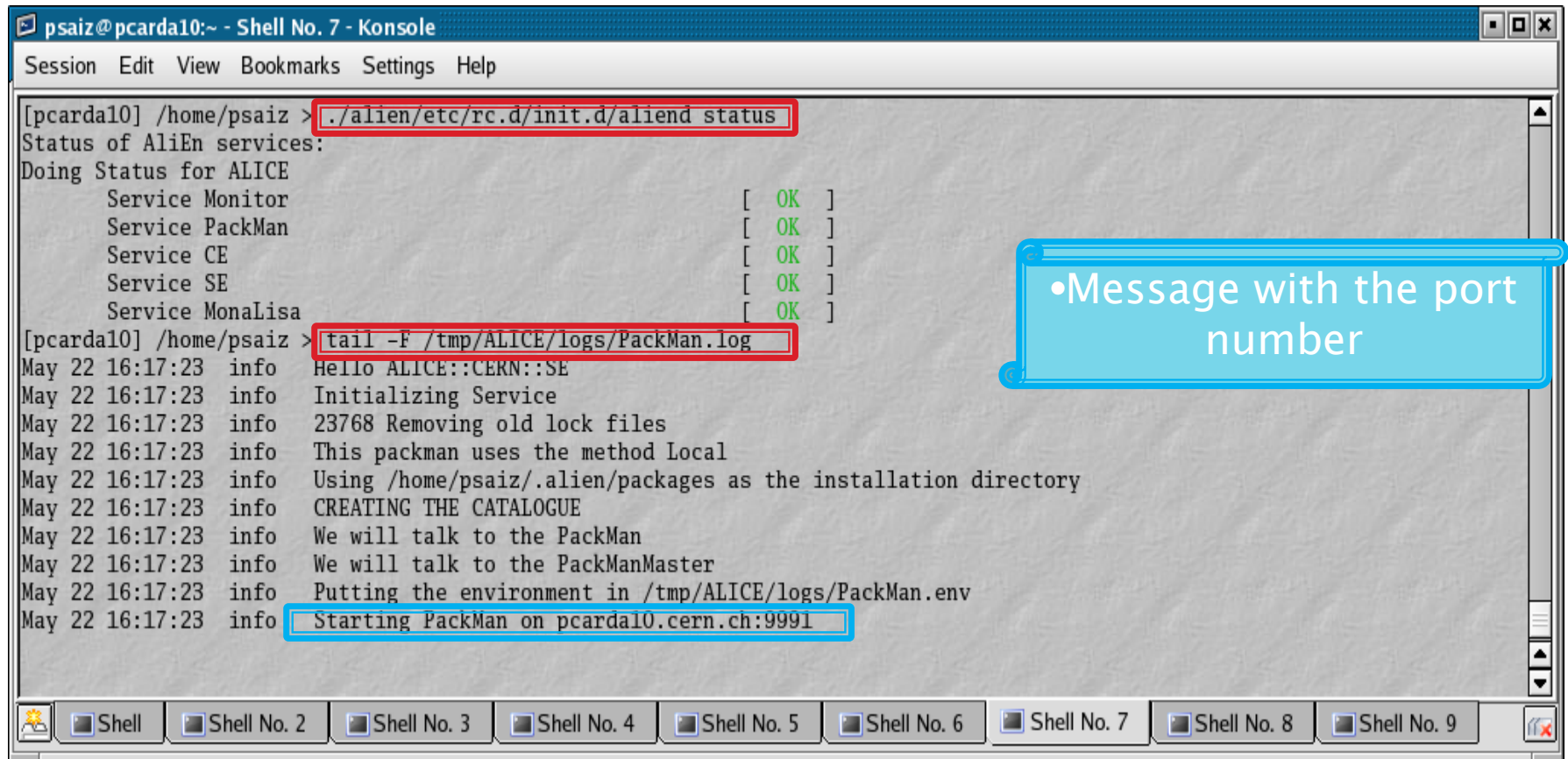
Starting the services

```
psaiz@pcarda10:~ - Shell No. 8 - Konsole
Session Edit View Bookmarks Settings Help

[pcarda10] /home/psaiz > mkdir -p .alien/etc/aliend/ALICE
[pcarda10] /home/psaiz > echo ALIEN_ORGANISATIONS=ALICE > .alien/etc/aliend/startup.conf
[pcarda10] /home/psaiz > cat <<EOF >.alien/etc/aliend/ALICE/startup.conf
> AliEnUser=psaiz
> AliEnServices="Monitor PackMan CE SE MonaLisa"
> AliEnCommand=/home/psaiz/alien/bin/alien
> EOF
[pcarda10] /home/psaiz > ./alien/etc/rc.d/init.d/aliend start
Starting AliEn services:
Doing Start for ALICE
  Service Monitor           [ OK ]
  Service PackMan           [ OK ]
  Service CE                 [ OK ]
  Service SE                 [ OK ]
  Service MonaLisaStarting UPDATE .. OK
Trying to start MonaLisa. Please wait .... STARTED [ PID == 18783 ]
                                [ OK ]

[pcarda10] /home/psaiz > █
```

Check the log files!



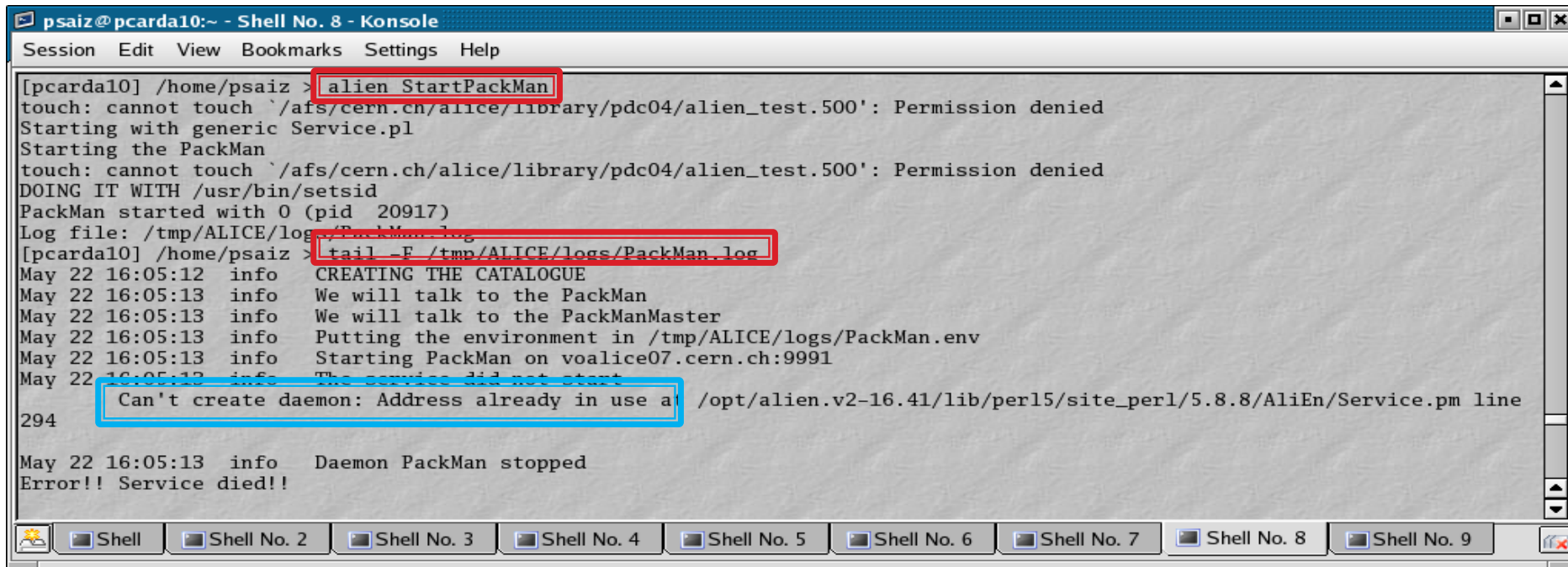
The image shows a terminal window titled "psaiz@pcarda10:~ - Shell No. 7 - Konsole". The window contains the following text:

```
[pcarda10] /home/psaiz > ./alien/etc/rc.d/init.d/aliend status
Status of AliEn services:
Doing Status for ALICE
  Service Monitor      [ OK ]
  Service PackMan     [ OK ]
  Service CE          [ OK ]
  Service SE          [ OK ]
  Service MonaLisa    [ OK ]

[pcarda10] /home/psaiz > tail -F /tmp/ALICE/logs/PackMan.log
May 22 16:17:23  info  Hello ALICE::CERN::SE
May 22 16:17:23  info  Initializing Service
May 22 16:17:23  info  23768 Removing old lock files
May 22 16:17:23  info  This packman uses the method Local
May 22 16:17:23  info  Using /home/psaiz/.alien/packages as the installation directory
May 22 16:17:23  info  CREATING THE CATALOGUE
May 22 16:17:23  info  We will talk to the PackMan
May 22 16:17:23  info  We will talk to the PackManMaster
May 22 16:17:23  info  Putting the environment in /tmp/ALICE/logs/PackMan.env
May 22 16:17:23  info  Starting PackMan on pcarda10.cern.ch:9991
```

A blue callout box on the right side of the terminal window contains the text: "•Message with the port number".

Possible errors... (4)



```
psaiz@pcarda10:~ - Shell No. 8 - Konsole
Session Edit View Bookmarks Settings Help

[pcarda10] /home/psaiz > alien StartPackMan
touch: cannot touch `/afs/cern.ch/alice/library/pdc04/alien_test.500': Permission denied
Starting with generic Service.pl
Starting the PackMan
touch: cannot touch `/afs/cern.ch/alice/library/pdc04/alien_test.500': Permission denied
DOING IT WITH /usr/bin/setsid
PackMan started with 0 (pid 20917)
Log file: /tmp/ALICE/logs/PackMan.log
[pcarda10] /home/psaiz > tail -F /tmp/ALICE/logs/PackMan.log
May 22 16:05:12 info    CREATING THE CATALOGUE
May 22 16:05:13 info    We will talk to the PackMan
May 22 16:05:13 info    We will talk to the PackManMaster
May 22 16:05:13 info    Putting the environment in /tmp/ALICE/logs/PackMan.env
May 22 16:05:13 info    Starting PackMan on voalice07.cern.ch:9991
May 22 16:05:13 info    The service did not start
Can't create daemon: Address already in use at /opt/alien.v2-16.41/lib/perl5/site_perl/5.8.8/AliEn/Service.pm line
294

May 22 16:05:13 info    Daemon PackMan stopped
Error!! Service died!!
```

▶ Solution:

- Kill everything listening on that port

- `kill -9 `ps -ef |grep PackMan |awk '{print $2}'``

▶ This should be fixed in latest version (v2.16-71)

How to get more details...

- ▶ Debug mode:
- ▶ `alien StartCE -debug 5`

LET'S GO THROUGH THE SERVICES

(ANY QUESTIONS SO FAR?)

ClusterMonitor

- ▶ **Tasks:**
 - Handles communication with Broker
 - Gives configuration to JA
 - Gets heartbeats from JA
 - Performs regular cleans up
- ▶ **Configuration:**
 - Nothing
- ▶ **If down:**
 - No new JA will be submitted
 - No heartbeats from JA
 - Existing jobs will turn to zombie (after 1.5 hours)
 - and expired (after 3 hours)
- ▶ **Warning: service called “Monitor”**

Starting the ClusterMonitor

```
psaiz@pcarda10:~ - Shell No. 7 - Konsole
Session Edit View Bookmarks Settings Help

[pcarda10] /home/psaiz > alien StartMonitor
Starting with generic Service.pl
Starting the cluster monitor
Killing old cluster monitor (pid 2074)
cluster monitor started with 0 (pid 2300)
Log file: /tmp/ALICE/logs/ClusterMonitor.log
[pcarda10] /home/psaiz > tail -F /tmp/ALICE/logs/ClusterMonitor.log
May 22 18:18:25 info Hello ALICE::CERN::SE
May 22 18:18:25 info Initializing Service
May 22 18:18:25 info Hello ALICE::CERN::SE
May 22 18:18:26 info Contacting the Manager/Job
May 22 18:18:26 warning Cluster monitor is not allowed to execute any jobs
May 22 18:18:26 info Starting the Cluster monitoring (max jobs)
May 22 18:18:26 info Manager/Job contacted
May 22 18:18:26 info Batch system: AliEn::TQ::FORK
May 22 18:18:26 info Batch systems:
May 22 18:18:26 info Putting the output in /tmp/ALICE/logs/ClusterMonitor/ProcInfo.log
May 22 18:18:26 info The father has started the messages thread (2324)
May 22 18:18:26 info Putting the environment in /tmp/ALICE/logs/ClusterMonitor.env
May 22 18:18:26 info Starting ClusterMonitor on pcarda10.cern.ch:8084
May 22 18:18:26 info Forking a process
May 22 18:18:26 info *****Redirecting the log of the checkWakesUp to /tmp/ALICE/logs/ClusterMonitor.wakesup.log

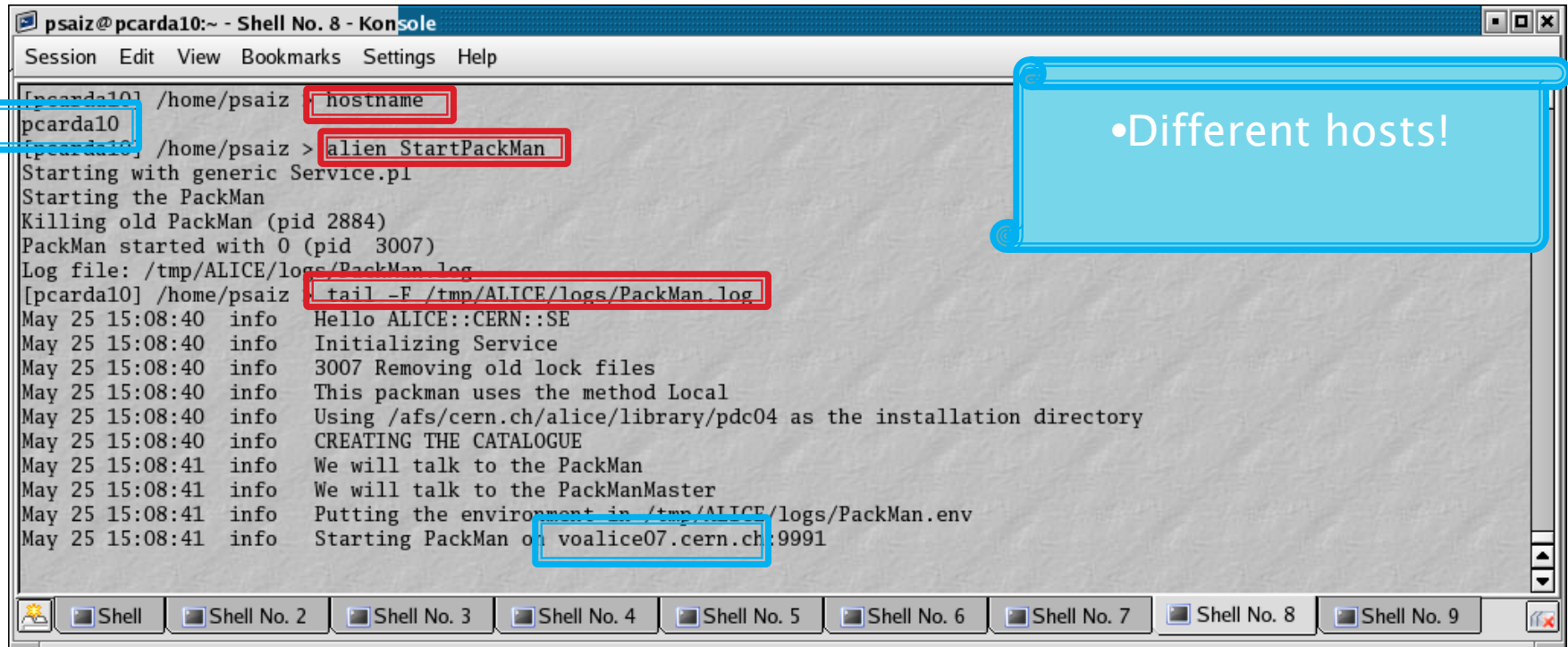
[pcarda10] /home/psaiz > █
```

- Service started!
- Default values
- Type of batch
- Warning: machine not allowed to execute jobs

PackMan

- ▶ Tasks:
 - Advertise known/installed packages
 - Installs/removes/configures software packages
- ▶ Configuration
 - Installdir, platform
- ▶ If down:
 - CE will not advertise any packages
 - JA might have problems configuring packages
 - If site does not allow JA to install packages

Possible errors(5)



The image shows a terminal window titled "psaiz@pcarda10:~ - Shell No. 8 - Konsole". The terminal output shows the execution of the following commands and their results:

```
[pcarda10] /home/psaiz hostname
pcarda10
[pcarda10] /home/psaiz > alien StartPackMan
Starting with generic Service.pl
Starting the PackMan
Killing old PackMan (pid 2884)
PackMan started with 0 (pid 3007)
Log file: /tmp/ALICE/logs/PackMan_log
[pcarda10] /home/psaiz tail -F /tmp/ALICE/logs/PackMan_log
May 25 15:08:40 info Hello ALICE::CERN::SE
May 25 15:08:40 info Initializing Service
May 25 15:08:40 info 3007 Removing old lock files
May 25 15:08:40 info This packman uses the method Local
May 25 15:08:40 info Using /afs/cern.ch/alice/library/pdc04 as the installation directory
May 25 15:08:40 info CREATING THE CATALOGUE
May 25 15:08:41 info We will talk to the PackMan
May 25 15:08:41 info We will talk to the PackManMaster
May 25 15:08:41 info Putting the environment in /tmp/ALICE/logs/PackMan.env
May 25 15:08:41 info Starting PackMan on voalice07.cern.ch:9991
```

Annotations in the image include:

- A blue box around the terminal prompt `[pcarda10]`.
- Red boxes around the command `hostname` and the output `pcarda10`.
- A red box around the command `alien StartPackMan`.
- A red box around the command `tail -F /tmp/ALICE/logs/PackMan_log`.
- A blue box around the output `voalice07.cern.ch:9991`.
- A blue callout box on the right containing the text "•Different hosts!".

- ▶ Solution:
 - Check the LDAP configuration

Starting PackMan

- Right host
- Installation directory

```
psaiz@pcarda10:~ - Shell No. 8 - Konsole
Session Edit View Bookmarks Settings Help

[pcarda10] /home/psaiz >
[pcarda10] /home/psaiz > alien StartPackMan
Starting with generic Service.pl
Starting the PackMan
Killing old PackMan (pid 3007)
PackMan started with 0 (pid 3359)
Log file: /tmp/ALICE/logs/PackMan.log
[pcarda10] /home/psaiz > tail -F /tmp/ALICE/logs/PackMan.log
May 25 15:13:55 info Hello ALICE..CERN.:SE
May 25 15:13:55 info Initializing Service
May 25 15:13:55 info 3359 Removing old lock files
May 25 15:13:55 info This packman uses the method Local
May 25 15:13:55 info Using /home/psaiz/.alien/packages as the installation directory
May 25 15:13:55 info CREATING THE CATALOGUE
May 25 15:13:55 info We will talk to the PackMan
May 25 15:13:55 info We will talk to the PackManMaster
May 25 15:13:56 info Putting the environment in /tmp/ALICE/logs/PackMan.env
May 25 15:13:56 info Starting PackMan on pcarda10.cern.ch:9991
```

How to talk to the PackMan

- ▶ See <http://alien.cern.ch/twiki/bin/view/AliEn/HowToUsePackMan>
- ▶ alien login
 - packman
- ▶ How to install packages
 - packman install <package name>
packman install VO_ALICE@AliRoot::v4-17-01
- ▶ How to remove
 - packman remove <package name>
 - rm -rf \$HOME/.alien/packages/VO_ALICE/

CE

▶ Tasks:

- Submits JA
 - While 1:
 - offerAgent
 - Sleep 60
 - Not a real service

▶ Configuration

- Type, Maxjobs,
- Maxqueued,
- Cmds, args

▶ If down:

- No JA will be submitted

The screenshot shows the Luma web interface. The left pane displays a tree view of organizational units (ou) and services. The 'ou=Prague' branch is expanded, showing sub-entries for 'ou=Config', 'ou=Services', 'ou=FTD', 'ou=SE', and 'ou=SARA'. The 'ou=Services' branch is further expanded, showing 'ou=CE' and 'ou=Prague-CREAM'. The 'ou=Prague-CREAM' entry is selected and highlighted in blue.

The right pane displays the configuration details for the selected entry. The 'Distinguished Name' is 'name=Prague-CREAM,ou=CE,ou=Services,ou=Prague,ou=Sites,o=alice,dc=cern,dc=ch'. The 'ObjectClasses' are 'top' and 'AliEnCE'. The 'Attributes' table is as follows:

Attribute	Value	Actions
TTL	172800	[edit] [delete]
environment	CE_LCGCE=cream1.farm.particle.cz:8443/cream-pbs-gridaliceprod	[edit] [delete]
	AliEn_WMS=CREAM	[edit] [delete]
	CE_RBLIST=	[edit] [delete]
host	alicebox1.farm.particle.cz	[edit] [delete]
killcmd	glite-ce-job-cancel	[edit] [delete]
maxjobs	300	[edit] [delete]
maxqueuedjobs	30	[edit] [delete]
name	Prague-CREAM	[edit] [delete]
si2kPrice	1	[edit] [delete]
statuscmd	glite-ce-job-status	[edit] [delete]
submitarg	-a -r cream1.farm.particle.cz:8443/cream-pbs-gridaliceprod	[edit] [delete]
submitcmd	glite-ce-job-submit	[edit] [delete]
type	CREAM	[edit] [delete]

Possible errors... (6)

```
psaiz@pcarda10:~ - Shell No. 8 - Konsole
Session Edit View Bookmarks Settings Help

[pcarda10] /home/psaiz > alien StartCE
Starting the "CE"
Killing old "CE" (pid 18547)
"CE" started with 0 (pid 4430)
Log file: /tmp/ALICE/logs/CE.log
[pcarda10] /home/psaiz > tail -F /tmp/ALICE/logs/CE.log
tail: cannot open '/tmp/ALICE/logs/CE.log' for reading: No such file or directory
tail: '/tmp/ALICE/logs/CE.log' has appeared; following end of new file
May 25 15:21:38 info Hello ALICE::CERN::SE
May 25 15:21:38 info Hello ALICE::CERN::SE
May 25 15:21:39 info We will talk to the PackMan
May 25 15:21:39 notice Starting remotequeue...
May 25 15:21:39 info We will talk to the PackMan
Filesys::DiskFree: /home/psaiz/.alien
May 25 15:21:39 info Warning! No price set in LDAP for CE. Setting price to '1'
May 25 15:21:39 info
[
  Requirements = ( other.Type == "Job" );
  CloseSE =
  {
    "Alice::CERN::Castor2",
    "Alice::CERN::CERNMAC",
    "Alice::CERN::SE",
    "Alice::CERN::CDR"
  };
  CE = "Alice::CERN::aliendb5";
  Version = "v2-16.70";
  Price = 1.0000000000000000E+00;
  Platform = "Linux-i686";
  Host = "aliendb5d";
  LocalDiskSpace = 3400796;
  WNHost = "pcarda10.cern.ch";
  TTL = 43200;
  Type = "machine";
  Uname = "2.6.9-67.0.1.EL.cern"
]
May 25 15:21:39 info Putting the environment in /tmp/ALICE/logs/CE.env
May 25 15:21:39 error Could not retrieve Queue information!
Checking of the Queue failed!
May 25 15:21:39 error
syntax error at line 1, column 0, byte 0 at /home/psaiz/alien.v2-16.70/lib/perl5/site_perl/5.8.8/i686-linux/XML/Parser.pm line 187
500 Can't connect to pcarda10.cern.ch:8084 (connect: Connection refused)
May 25 15:21:39 info At the moment we are busy (we can't request new jobs)
```

•CM is down. Restart it!
•CE jdl

Possible errors... (7)

```
psaiz@pcarda10:~ - Shell No. 8 - Konsole
Session Edit View Bookmarks Settings Help

[pcarda10] /home/psaiz > alien StartMonitor
Starting with generic Service.pl
Starting the cluster monitor
Killing old cluster monitor (pid 2300)
cluster monitor started with 0 (pid 5132)
Log file: /tmp/ALICE/logs/ClusterMonitor.log
[pcarda10] /home/psaiz > tail -F /tmp/ALICE/logs/CE.log
500 Can't connect to pcarda10.cern.ch:8084 (connect: Connection refused)

May 25 15:29:39 error
syntax error at line 1, column 0, byte 0 at /home/psaiz/alien.v2-16.70/lib/perl5/site_perl/5.8.8/i6
ine 187
500 Can't connect to pcarda10.cern.ch:8084 (connect: Connection refused)

May 25 15:30:39 error
syntax error at line 1, column 0, byte 0 at /home/psaiz/alien.v2-16.70/lib/perl5/site_perl/5.8.8/i686-linux/XML/Parser.pm 1
ine 187
500 Can't connect to pcarda10.cern.ch:8084 (connect: Connection refused)

May 25 15:31:39 error Error the ClusterMonitor did not return any value

[pcarda10] /home/psaiz > tail -F /tmp/ALICE/logs/ClusterMonitor.log
May 25 15:31:15 info Batch system: ALICE.LQ.FORK
May 25 15:31:15 info Batch systems:
May 25 15:31:15 info Putting the output in /tmp/ALICE/logs/ClusterMonitor/ProcInfo.log
May 25 15:31:15 info The father has started the messages thread (5153)
May 25 15:31:15 info Putting the environment in /tmp/ALICE/logs/ClusterMonitor.env
May 25 15:31:15 info Starting ClusterMonitor on pcarda10.cern.ch:8084
May 25 15:31:15 info Forking a process
May 25 15:31:15 info *****Redirecting the log of the checkWakesUp to /tmp/ALICE/logs/ClusterMonitor.wakesup.log
May 25 15:31:39 info Asking the Manager how many jobs we can run
May 25 15:31:39 info We can run and 0
May 25 15:32:39 info Asking the Manager how many jobs we can run
```

- Host is not allowed to execute jobs!
- Check LDAP configuration
- After fixing LDAP, wait 10 minutes
- (VO ADMIN: resyncLDAP)

Possible errors... (8)

```
psaiz@pcarda10:~ - Shell No. 8 - Konsole
Session Edit View Bookmarks Settings Help

[pcarda10] /home/psaiz > tail -F /tmp/ALICE/logs/CE.log
WnHost = "pcarda10.cern.ch";
TTL = 43200;
Type = "machine";
Uname = "2.6.9-67.0.1.EL.cern"
]
May 25 15:47:11 info Putting the environment in /tmp/ALICE/logs/CE.env
May 25 15:47:11 info At the moment we are busy (we can't request new jobs)
May 25 15:48:11 error The master has blocked the queue for us!

[pcarda10] /home/psaiz > alien login -r aliproduct
May 25 16:01:28 info Alice::CERN::CE
May 25 16:01:29 info We will talk to the PackMan
May 25 16:01:29 notice Starting remotequeue...
Filesys::DiskFree: /home/psaiz/.alien
May 25 16:01:29 info Using default TTL value: 12 hours
May 25 16:01:29 info Warning! No price set in LDAP for CE. Setting price to '1'
May 25 16:01:29 info
[
Requirements = ( other.Type == "Job" );
CloseSE =
{
"Alice::CERN::Castor2",
"Alice::CERN::CERNMAC",
"Alice::CERN::SE",
"Alice::CERN::CDR"
};
CE = "Alice::CERN::pcarda10";
Version = "v2-18.70";
Price = 1.0000000000000000E+00;
Platform = "Linux-i686";
Host = "pcarda10.cern.ch";
LocalDiskSpace = 3401372;
WnHost = "pcarda10.cern.ch";
TTL = 43200;
Type = "machine";
Uname = "2.6.9-67.0.1.EL.cern"
]
[aliendb06c.cern.ch:3307] /alice/cern.ch/user/a/aliproduct > queue list Alice::CERN::pcarda10
-----
site           open    status      load runload queued/max  run/max
Alice::CERN::pcarda10  locked closed-blocked  -0  -0  0/5  0/5
```

•Contact the VO admin:
•queue open <queue name>

Possible errors... (9)

```
psaiz@pcarda10:~ - Shell No. 7 - Konsole
Session Edit View Bookmarks Settings Help

[pcarda10] /home/psaiz > tail -F /tmp/ALICE/logs/CE.log
tail: cannot open '/tmp/ALICE/logs/CE.log' for reading: No such file or directory
tail: '/tmp/ALICE/logs/CE.log' has appeared; following end of new file
May 25 16:15:11 info Hello ALICE::CERN::SE
May 25 16:15:12 info Hello ALICE::CERN::SE
May 25 16:15:12 info We will talk to the PackMan
May 25 16:15:12 notice Starting remotequeue...
May 25 16:15:12 info We will talk to the PackMan
Filesys::DiskFree: /home/psaiz/.alien
May 25 16:15:13 info Using default TTL value: 12 hours
May 25 16:15:13 info Warning! No price set in LDAP for CE. Setting price to '1'
May 25 16:15:13 info
[
  Requirements = ( other.Type == "Job" );
  CloseSE =
  {
    "Alice::CERN::Castor2",
    "Alice::CERN::CERNMAC",
    "Alice::CERN::SE",
    "Alice::CERN::CDR"
  };
  CE = "Alice::CERN::pcarda10";
  Version = "v2-16.70";
  Price = 1.0000000000000000E+00;
  Platform = "Linux-i686";
  Host = "pcarda10.cern.ch";
  LocalDiskSpace = 3401500;
  WNHost = "pcarda10.cern.ch";
  TTL = 43200;
  Type = "machine";
  Uname = "2.6.9-67.0.1.EL.cern"
]
May 25 16:15:13 info Putting the environment in /tmp/ALICE/logs/CE.env
May 25 16:15:13 error Could not retrieve Queue information!
Checking of the Queue failed!
May 25 16:15:13 info According to the manager, we can queue max 5 and manage max
May 25 16:15:13 info Returning 5 free slots, with 0 running jobs
May 25 16:15:13 info We will talk to the PackMan
Filesys::DiskFree: /home/psaiz/.alien
May 25 16:15:13 info Using default TTL value: 12 hours
May 25 16:15:13 info warning: no price set in LDAP for CE. Setting price to '1'
May 25 16:15:13 info No job matched your ClassAd
```

•There is nothing in the queue that you can execute...

•Could be either misconfiguration or that there is nothing to execute

No job matched your classad

- ▶ `top -status WAITING -user aliproduct`
- ▶ `jobListMatch <jobid> <ce_name> -verbose`

jobListMatch

```
psaiz@pcarda10:~ - Shell No. 7 - Konsole
Session Edit View Bookmarks Settings Help

27695468      WAITING      /alice/bin/aliproduct_new      aliproduct@pcalimonitor.cern.ch
27695469      WAITING      /alice/bin/aliproduct_new      aliproduct@pcalimonitor.cern.ch
27695470      WAITING      /alice/bin/aliproduct_new      aliproduct@pcalimonitor.cern.ch
27695471      WAITING      /alice/bin/aliproduct_new      aliproduct@pcalimonitor.cern.ch
27695472      WAITING      /alice/bin/aliproduct_new      aliproduct@pcalimonitor.cern.ch
27695473      WAITING      /alice/bin/aliproduct_new      aliproduct@pcalimonitor.cern.ch
27695474      WAITING      /alice/bin/aliproduct_new      aliproduct@pcalimonitor.cern.ch
27695475      WAITING      /alice/bin/aliproduct_new      aliproduct@pcalimonitor.cern.ch
27695476      WAITING      /alice/bin/aliproduct_new      aliproduct@pcalimonitor.cern.ch
27695477      WAITING      /alice/bin/aliproduct_new      aliproduct@pcalimonitor.cern.ch
[aliendb06c.cern.ch:3307] /alice/cern.ch/user/a/aliproduct/ > jobListMatch 27695477 alice::cern::pcarda10
May 25 16:26:15 info In total, there are 0 sites that match
[aliendb06c.cern.ch:3307] /alice/cern.ch/user/a/aliproduct/ > jobListMatch 27695477 alice::cern::pcarda10 -verbose
Comparing the jdl of the job with Alice::CERN::pcarda10... no match :(
May 25 16:26:19 info In total, there are 0 sites that match
May 25 16:26:19 info Starting with ( other.Type == "machine" ) && ( member(other.Packages,"VO_ALICE@APISCONFIG::V2.4") )
&& ( member(other.Packages,"VO_ALICE@ROOT::v5-23-04") ) && ( member(other.Packages,"VO_ALICE@GEANT3::v1-10-1") ) && ( member
(other.Packages,"VO_ALICE@AliRoot::v4-16-Rev-11") ) && ( other.Type == "machine" ) && ( other.TTL > 72000 ) && ( other.Pr
ice <= 1 ) && ( other.LocalDiskSpace > 4096000 )
May 25 16:26:19 info Checking Alice::CERN::pcarda10
May 25 16:26:19 info Unmet Requirements for Alice::CERN::pcarda10:
May 25 16:26:19 info 1) ( other.TTL > 72000 ) : TTL is not matched by this CE
May 25 16:26:19 info 2) ( member(other.Packages,"VO_ALICE@AliRoot::v4-16-Rev-11") ) : Package doesn't exit or de
leted from the Catalogue
May 25 16:26:19 info 3) ( member(other.Packages,"VO_ALICE@GEANT3::v1-10-1") ) : Package doesn't exit or deleted
from the Catalogue
May 25 16:26:19 info 4) ( member(other.Packages,"VO_ALICE@ROOT::v5-23-04") ) : Package doesn't exit or deleted f
rom the Catalogue
May 25 16:26:19 info 5) ( member(other.Packages,"VO_ALICE@APISCONFIG::V2.4") ) : Package doesn't exit or deleted
from the Catalogue
May 25 16:26:19 info The best sites are Alice::CERN::pcarda10 (with only 5)
[aliendb06c.cern.ch:3307] /alice/cern.ch/user/a/aliproduct/ >
```

Possible items

- ▶ TTL
 - Check proxy and ldap configuration
- ▶ Packages
 - Check if PackMan is running
- ▶ Partition
 - Ask the VO admin to add your site to the right partition
- ▶ SE
 - Nothing to do... the job is supposed to run somewhere else

MonALISA

- ▶ Tasks:
 - See Costin's presentation
- ▶ Configuration
 - See Costin's presentation
- ▶ If down:
 - Red dot on the map!!
 - No MonALISA information for the site
 - No possibility to restart services



• See Costin's presentation

SE

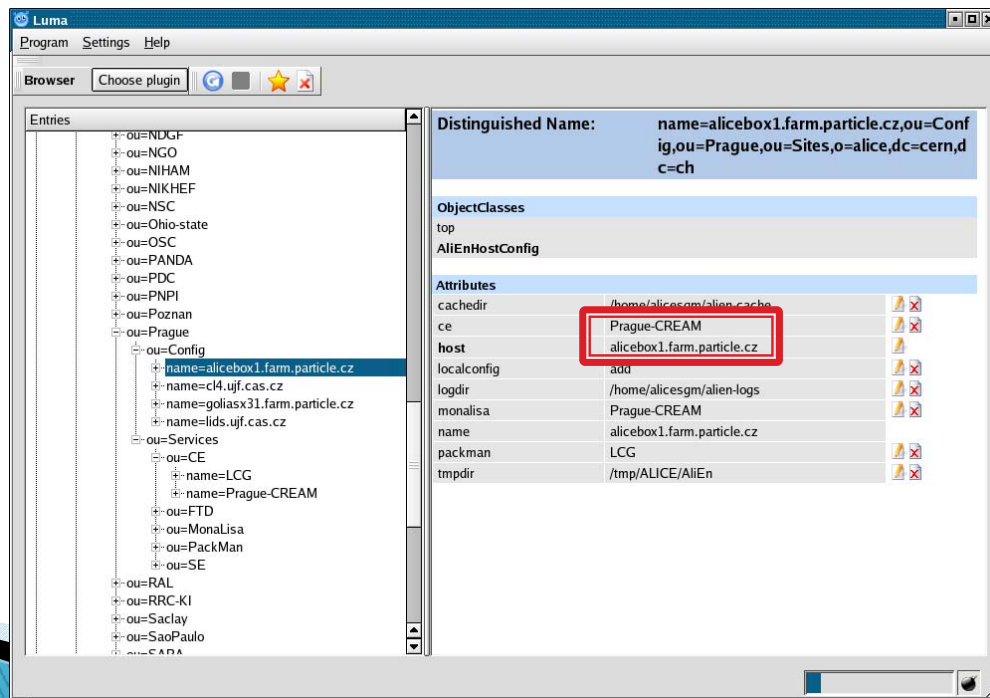
- ▶ Tasks:
 - Keeps track of files
 - Immediate transfers (mirror -i)
 - Clean up orphan files **
- ▶ Configuration
 - Type, directory, size
 - Iodaemons (xrootd) host & port
- ▶ If down:
 - No 'immediate transfers'
- ▶ Warning: this service might become obsolete (although the functionality will still be there)

FTD

- ▶ **Tasks**
 - Transfers files between sites
- ▶ **Configuration**
 - Protocols, X509 certificate, directories
- ▶ **If down:**
 - No scheduled transfers from or to the site
- ▶ **Warning:**
 - This service might become obsolete

Problems (10)

- ▶ What if I have several services on the same site?
- ▶ Solution:
 - Define different configs in Idap



Summary of commands

- ▶ `$ALIEN_ROOT/etc/rc.d/init.d/aliend start|stop`
- ▶ `alien Start<Service> [-debug 5]`
 - `StartMonitor StartCE StartPackMan StartMonaLisa StartSE StartFTD`
- ▶ `alien login -role aliproduct`
 - `queue info <queuename>`
 - `top -user aliproduct -status WAITING`
 - `jobListMatch <jobid> <queuename>`
 - `packman`

Conclusion

- ▶ You are ready to handle the AliEn Site Services!
- ▶ Software update triggered centrally
- ▶ If MonALISA running (and site configured), it can restart other services
- ▶ In case of errors:
 - Check log file
 - Check FAQ (thanks to Steffen!)
 - Start in debug mode
 - If none of the above helped, send email to the list