



The GENIUS Portal

Nicola Venuti – Livia Torterolo
NICE srl

Geneva, 10-12.10.2006, 2nd Tutorial for Health e-Child Project



Contents

- Grid Portals technology
- EnginFrame Grid Portal/Gateway
- GENIUS Portal
- Future perspectives

What is a Grid Portal?

*A Grid Portal is a system to **expose** grid **services** that operate on grid **resources***

- Services are:
 - **generic** as well as **application-specific** grid services
- Resources are (stateful) instances of:
 - jobs, datasets, computing/storage nodes, queues, SW licenses
- Services are exposed through:
 - (X)HTML, Portlets, WebServices

Grid Portal Benefits

- A Grid Portal improves **usability** of Grids
 - Verticalizing the service offering
 - Lowering end-user requirements for accessing the Grid
 - Hiding the complexity of **data management** in the Grid

- A Grid Portal improves **utilization** of Grids
 - Making the Grid (r)evolution transparent to the end-user
 - Providing an appealing user-friendly Web interface
 - Enforcing Grid utilization policies

Slide 4

b24

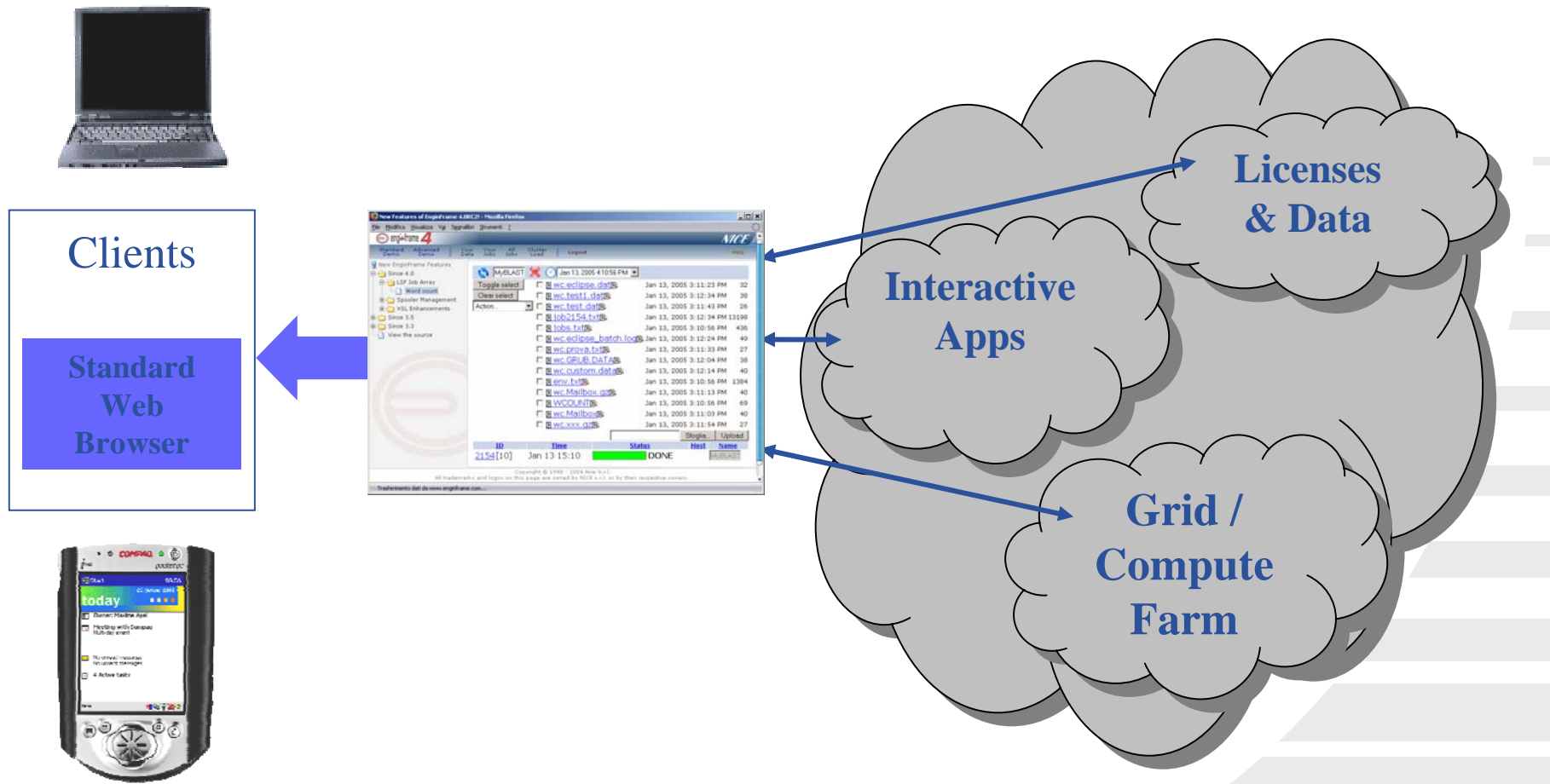
Questa slide e' da ripensare.

Benefici per chi?

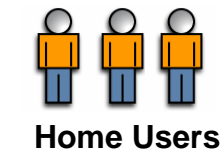
- For Users
- For Project Managers
- For Resource Managers
- For Administrators

bruno, 1/5/2005

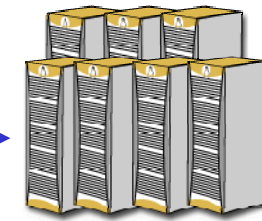
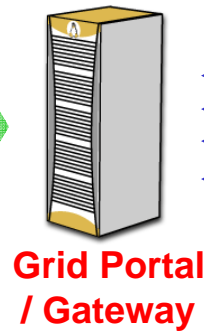
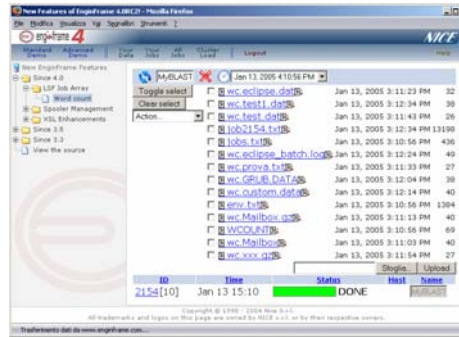
The Web-centric vision



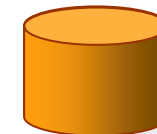
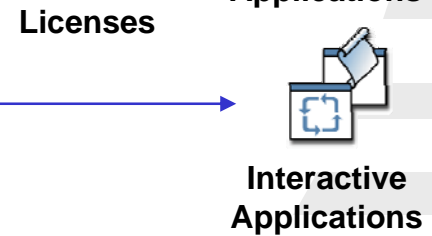
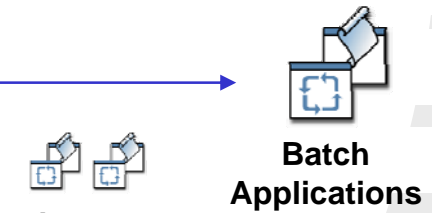
The Grid Portal / Gateway



Standard protocols



Grid / Compute Farm



Storage and Data



Contents

- Grid Portals technology
- EnginFrame Grid Portal / Gateway
- GENIUS Portal
- Future perspectives

What is EnginFrame?

- It is a Web-based technology able to expose Grid services running on Grid infrastructures
- It allows organizations to provide application-oriented computing and data services to both users (via Web browsers) and applications (via SOAP/WSDL and/or RSS)
- It's a Grid *gateway*
- It greatly simplifies the development of Web portals



Who uses EnginFrame?

■ Industries

- **Mechanical:** Ferrari, Audi, BMW, FIAT Auto, Delphi, Elasis, Magneti Marelli, P+Z, Swagelok, Toyota, TRW
- **Manufacturing:** Bridgestone, Procter & Gamble, Galileo Avionica
- **Oil&Gas:** Slavneft, Schlumberger, TOTAL, VNIIGaz
- **Electronics :** STMicroelectronics, Accent, SensorDynamics, Motorola
- **Biotech:** ENEA, EGEE LS community
- **Telecom:** Telecom Italia

■ Research

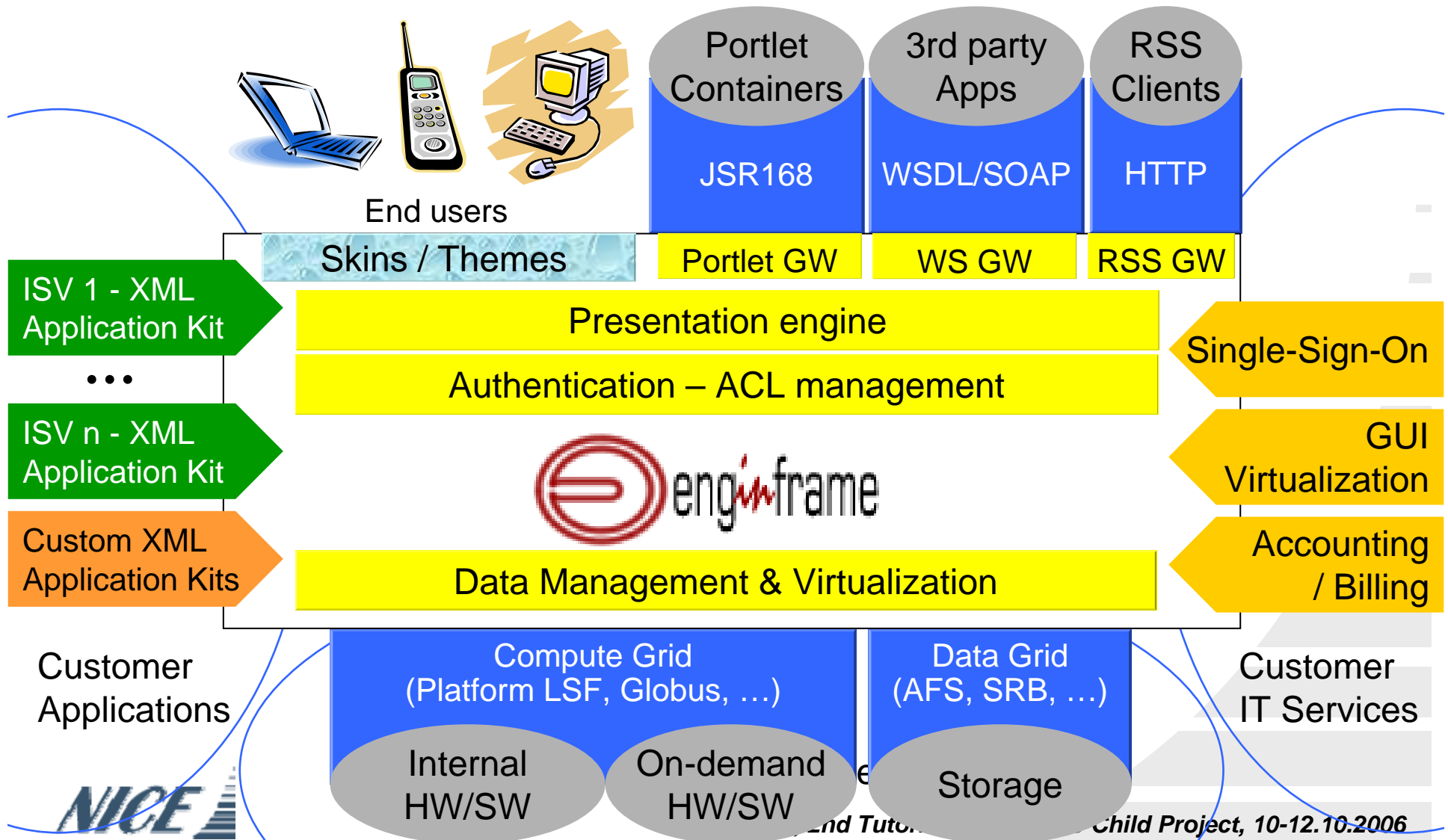
- CERN, INFN, ASSC, CCLRC, CILEA, CINECA, CNR, CNRS/IN2P3, ENEA, FzU, ICI, IFAE, ITEP, JSC G.G.M., KU Leuven, SSC-Russia, SDSC

■ Education

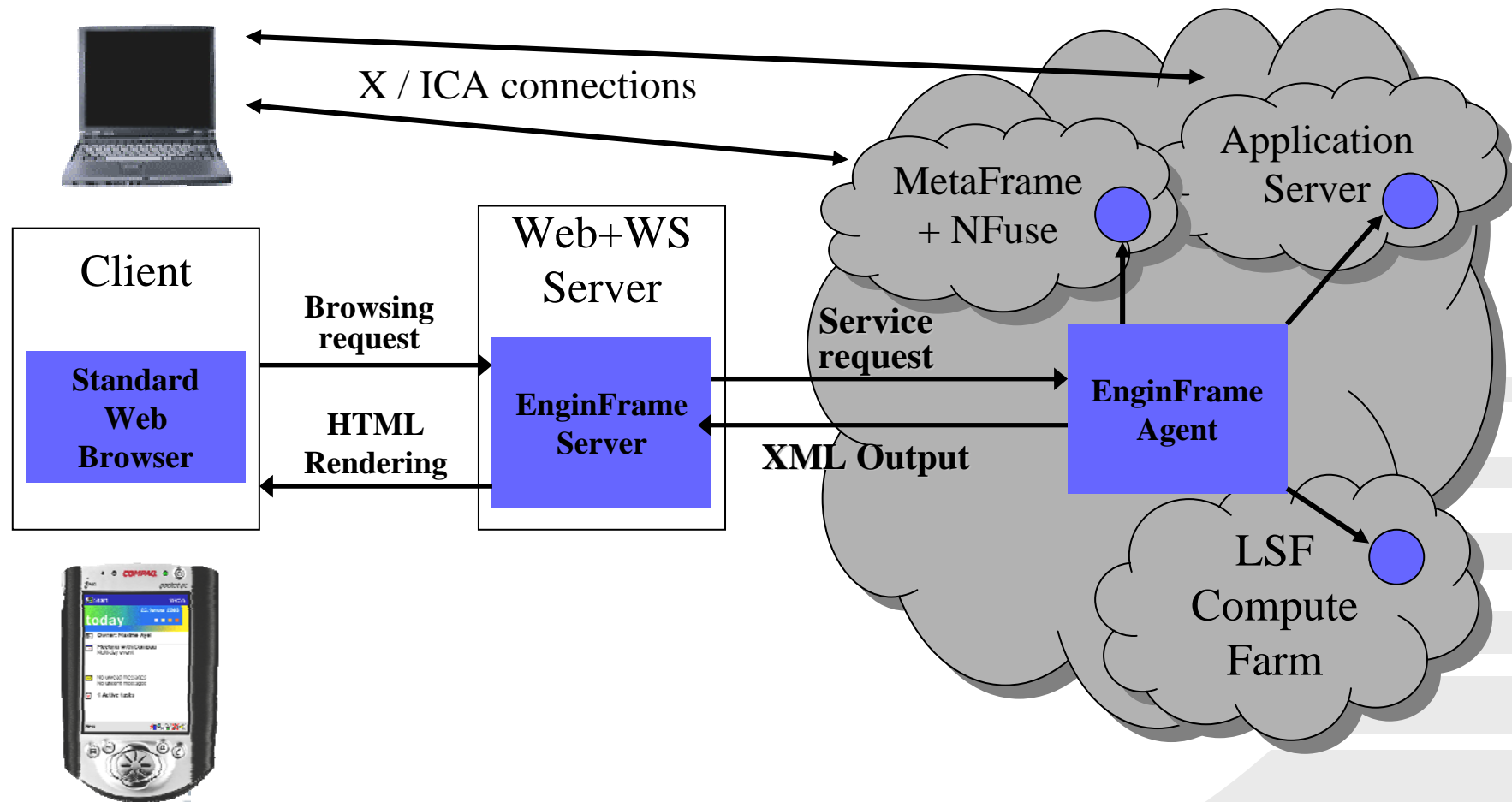
- Dresda University, Ferrara University, ITU, Messina University, Politecnico of Milan, Technische Universität Dresden, Trinity College Dublin, Salerno University, S-PACI



EnginFrame as Grid Gateway



EnginFrame Positioning



EnginFrame Terminology

- **Service** – anything that can be submitted through EnginFrame Portal
- **SDF** – **S**ervice **D**efinition **F**ile: XML file which contains the definitions of services
- **Authorization** – a system aimed to allow/deny user access to resources based on policies
- **Plug-in** – a piece of code that enhances the EnginFrame GRID Portal
- **Spooler** – data container created by EF to host the submitted commands

SM70

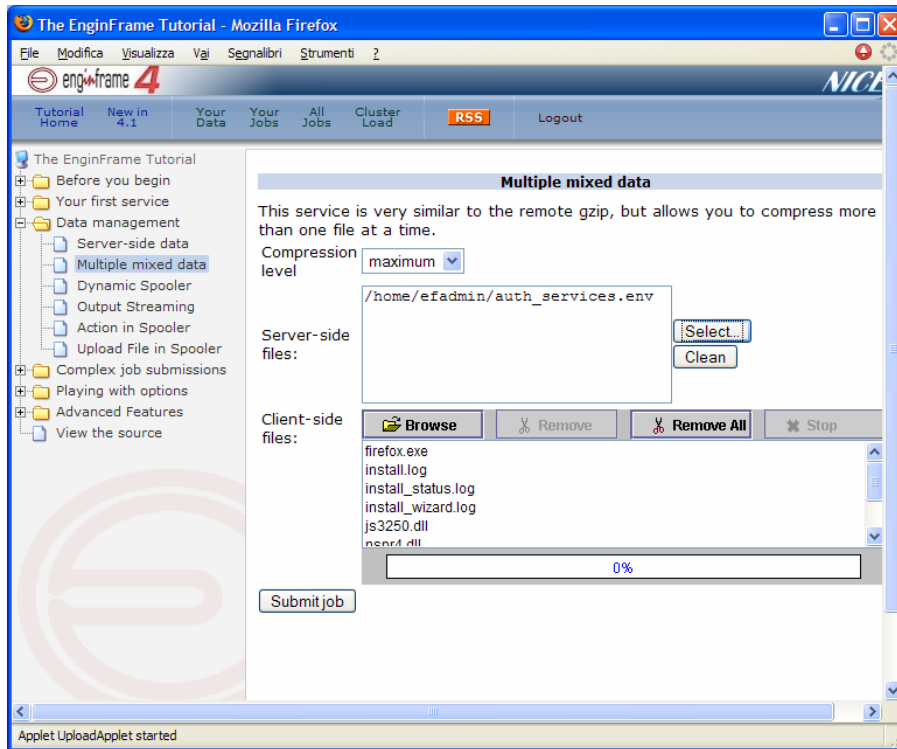
100%

Salvo Maccarone, 1/21/2005

EnginFrame Characteristics

- Job scheduling:
 - Platform LSF, Sun Grid Engine, Altair PBS, LCG and EGEE gLite
- Easy to add/modify services
 - Light on programming
 - Immediate to deploy (self-reload)
 - Enable to cope with continuous evolution of needs
 - Enable to deploy project-specific portals
- Service description, presentation, execution are completely separated!
 - XML for service description
 - XSL for service presentation
 - Service Actions / Shell scripts for service execution

Flexible Input data access



- Client-side data
 - HTTP(S) data transfer
 - Single/multiple upload
 - Progress bars for large file tracking
- Server-side data
 - Standards-based remote navigation
 - Single-multiple selections
 - Flexible navigation sources
- Support for Windows, Linux and UNIX browsers

Usability & Input management

*User friendly,
Application-oriented
Job submission*

*Flexible and efficient
Input file management*

*Hide complexity of
Underlying scheduler*

The screenshot shows the Gridage 4.1 web interface in a Mozilla Firefox browser. The page title is "Gridage - Mozilla Firefox" and the URL is "http://www.gridage.com/enginframe/gridage/main/gridage.xml?_folder=rc". The interface features a navigation menu with "my jobs", "all jobs", "cluster load", "RSS", and "logout". A sidebar on the left lists "Grid Services" including MSC.Nastran, MSC.Marc, MSC.Actran, MSC.ADAMS, MSC.Dytran, MSC.PThermal, MSC.Patran, and Radioss. The main content area is titled "MSC.Nastran" and contains a form for job submission. The form includes fields for "Project" (Project1), "Label" (NASTRAN), "Nastran version" (Nastran 2005 R2), "Remote input file" (with a "Select..." button), "Input file (.dat or .zip)" (with an "Sfoggia..." button), "No. of CPU" (1), "Keep files on computode" (no), and "Additional options". Below these are three dropdown menus for "Estimated elapsed time", "Estimated memory requirements", and "Estimated disk space", each with a "Select one..." option. There are also checkboxes for "Notify by mail", "When job starts", and "When job finishes", and a "Submit job" button. The footer of the page includes "Completato" and "Copyright © 1998 - 2005 NICE S.p.A. - Gridage version 4.1".



Usability & Input management

**User friendly,
Application-oriented
Job submission**

**Flexible and efficient
Input file management**

**Hide complexity of
Underlying scheduler**

```
- <ef:agent xmlns:ef="http://www.enginframe.com/2000/EnginFrame" authority="os"
id="com.enginframe.system">
  <ef:name>EnginFrame System Services</ef:name>
  <ef:location host="127.0.0.1" port="9999" />
  <!-- TTL=0 means delete the spooler as soon as the service has finished
execution. -->
- <ef:spooler server="{EF_SPOOLER_DIR}" ttl="0">
- <ef:folder id="root">
  <ef:name>EnginFrame System Services</ef:name>
- <ef:folder id="data">
  <ef:name>Data management</ef:name>
- <ef:service id="list.spoolers">
  <ef:name>List your spoolers</ef:name>
  <ef:option id="countHiddenFiles" type="hidden">>false</ef:option>
- <ef:action id="submit" label="Details">
  ${EF_ROOT}/plugins/ef/bin/ef.list.spoolers
  <ef:result type="text/xml" />
</ef:action>
</ef:service>
- <ef:service id="show.spooler">
  <ef:name>Browse spooler contents</ef:name>
  <ef:option id="uri" label="URI:" type="text" />
  <ef:option id="sub" label="Sub Directory:" type="text" />
- <ef:action id="submit" label="Details">
  ${EF_ROOT}/plugins/ef/bin/ef.show.spooler $uri $sub
  <ef:result type="text/xml" />
```



Monitoring & control

Global Job monitoring

Cluster & host monitoring

Job details & control

ID	Project	Time	Status	Host	Name
23065	Tr3Df5	Mar 16 10:07	EXIT		M_copiatrucio3dnewmodeldirec
23066	Tr3Df5	Mar 16 10:09	EXIT		
23007	Tr2Df3	Mar 14 14:48	EXIT		
22998	Tr12Df2	Mar 14 12:48	DONE		
22806	TEST	Mar 9 18:16	DONE		
22807	TEST	Mar 9 18:26	DONE		
23018	test	Mar 14 17:34	EXIT		
23020	test	Mar 14 17:48	EXIT		
23023	test	Mar 14 17:57	DONE		
23024	test	Mar 14 17:59	DONE		
23027	test	Mar 14 18:12	DONE		
23028	test	Mar 14 18:13	DONE		
23030	test	Mar 14 18:20	DONE		
23031	test	Mar 14 18:22	DONE		
23032	test	Mar 14 18:24	DONE		
23033	test	Mar 14 18:25	DONE		
23034	test	Mar 14 19:33	DONE		

Host gridage2

Status: ok

Hardware:

- Host type: HPPA11
- Host model: Intel_IA64
- Number of processors: 2
- Physical memory: 8181M
- Swap space: 4096M

Load:

- Number of users: 0
- CPU utilization: 50 %
- CPU run queue length:
 - Averaged over 15 sec: 2.0
 - Averaged over 1 min: 2.0
 - Averaged over 15 min: 2.1
- Available physical memory: 6872M / 8181M
- Available swap space: 3910M / 4096M
- Free space in /tmp: 2452M
- Paging rate: 1.0 pages/sec
- I/O throughput: 108 Kb/sec
- Idle time: 2932 min

ID	Project	Time	Status	Host	Name
23068	Project1	Mar 16 11:21	RUN	gridage2	M_maniglia_10381.job

Details Resource usage: CPU: 18145s. Memory: 426 Mbytes Swap: 439 Mbytes;

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Comprehensive Output data management

Data lifecycle management

Comprehensive output File manipulation (view, edit, delete, zip, ...)

Job details & control

The screenshot shows the Gridage 4.1 web interface in a Mozilla Firefox browser. The page title is "Gridage - Mozilla Firefox" and the URL is "http://www.gridage.com/engframe/gridage/main/gridage.xml?_uri=//cor". The interface features a navigation menu with tabs for "my jobs", "all jobs", "cluster load", "RSS", and "logout". A sidebar on the left lists various MSC (MSC.Nastran, MSC.Marc, MSC.Actran, MSC.ADAMS, MSC.Dytran, MSC.Patran, Radioss) and is powered by "engframe". The main content area displays a list of files for job "22953 - NASTRAN - Project1" dated "Mar 18, 2006 11:14:12". The files list includes:

File Name	Size
1e2x10.dat	5057 bytes
N_NASTRAN_28073.job	3949 bytes
INFO_22953.txt	130 bytes
1e2x10.f04	5985 bytes
1e2x10.f06	15806 bytes
1e2x10.log	3584 bytes
post_processing.ses	254 bytes
1e2x10.LSF_out	2219 bytes
1e2x10.LSF_err	238 bytes

Below the file list, there are buttons for "tar", "tgz", "zip", and "del". A "Resubmit Nastran" button is also present. A table below shows job details:

ID	Project	Time	Status	Host	Name
22953	Project1	Mar 13 11:14	DONE	intelmuc06	N_NASTRAN_28073.jc

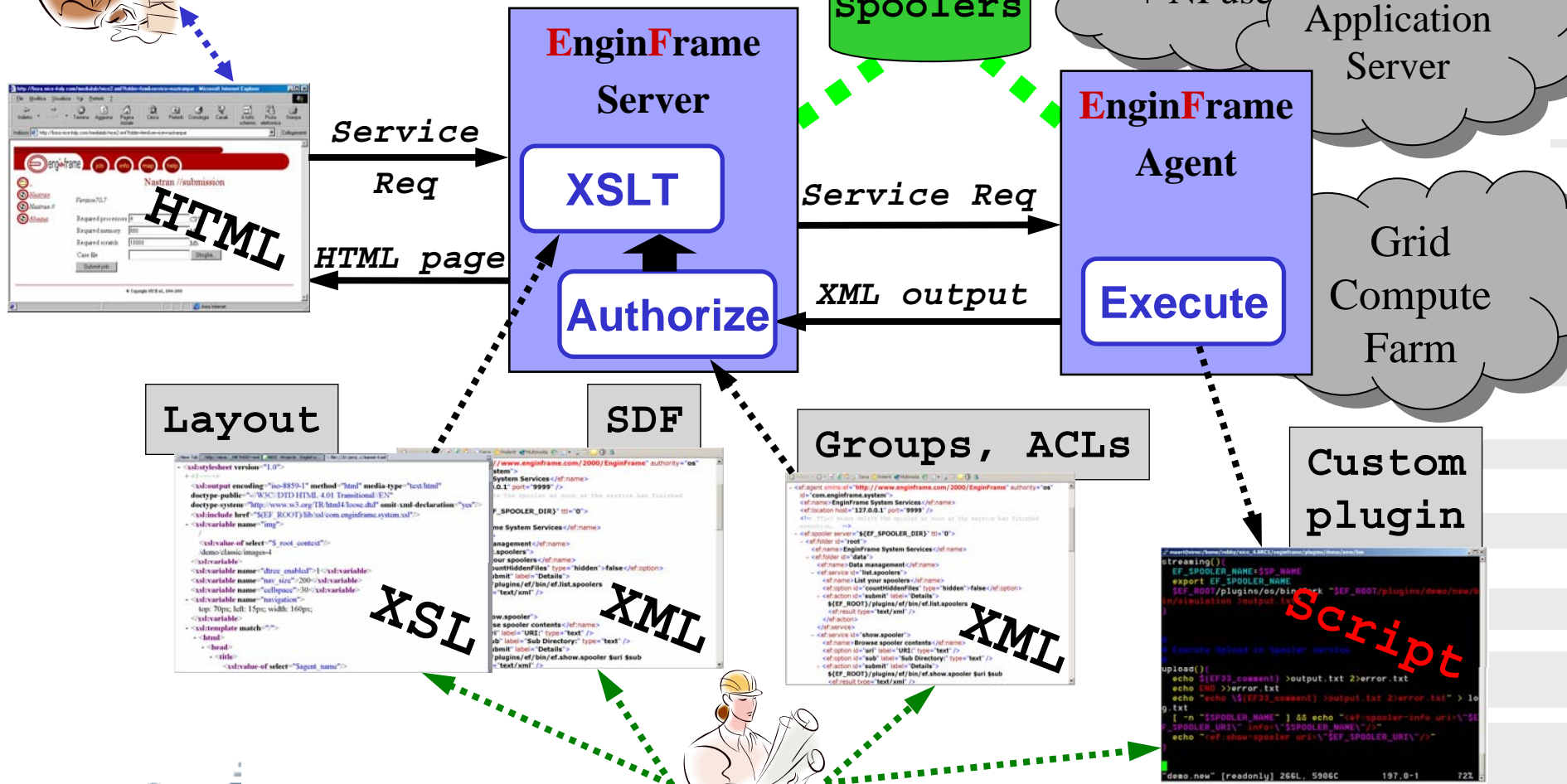
Additional details include "Resource usage: CPU: 0.4s." and a footer with copyright information: "Copyright © 1998 - 2005 NICE S.r.l. - Gridage version 4.1. All trademarks and logos on this page are owned by NICE s.r.l. or by their respective owners." The status "Completato" is shown at the bottom left of the browser window.

EnginFrame Working Environment

User



Service Submission



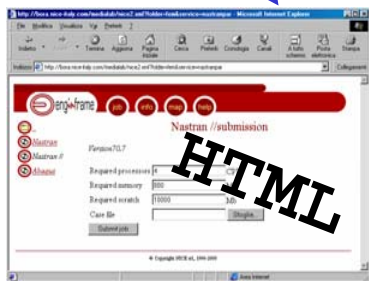
m115

100%

mauri, 1/17/2005

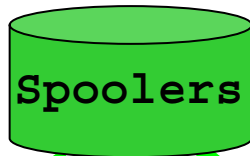
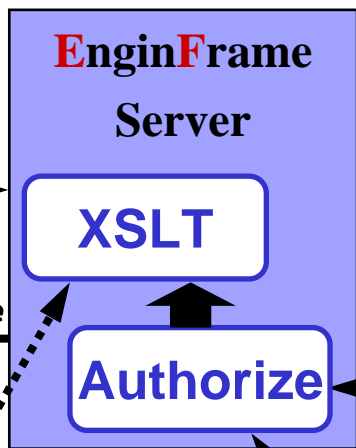
EnginFrame Working Environment

User



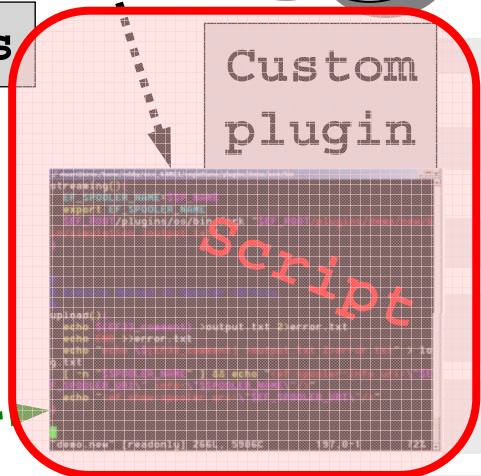
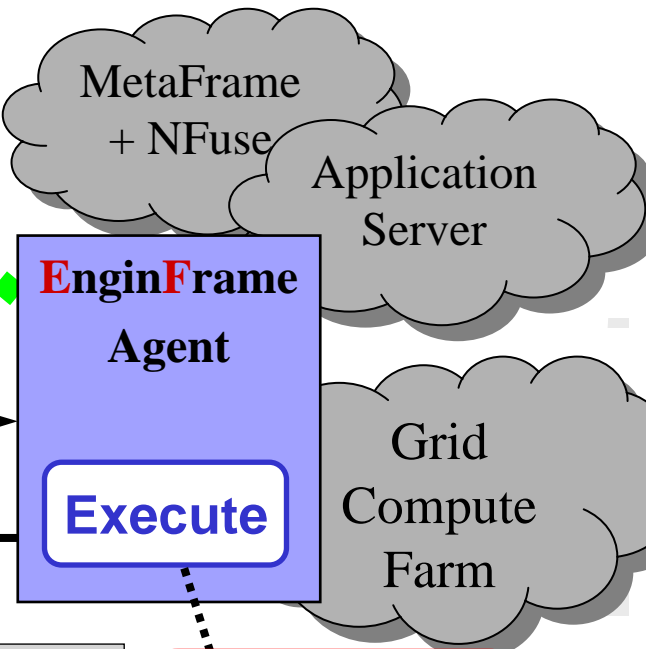
Service Req

HTML page



Service Req

XML output



Admin

a, 2nd Tutorial for Health e-Child Project, 10-12.10.2006



m116

100%

mauri, 1/17/2005

Creating a SDF – example

```
<ef:agent id="myagentname"
  authority="{EF_DEFAULT_AUTHORITY}"
  xmlns:ef="http://www.engineframe.com/2000/EngineFrame">

  <ef:name>EngineFrame Grid Portal</ef:name>
  <ef:info><h1>Welcome to EngineFrame</h1></ef:info>

  <ef:location host="{EF_AGENT_HOST}"
    port="{EF_AGENT_PORT}"/>

  <ef:include xml="{EF_LIB}/xml/com.engineframe.system.xml"/>
  <ef:include xml="{EF_LIB}/xml/com.engineframe.lsf.xml"/>

  <ef:spooler server="{EF_SPOOLER_DIR}" ttl="0"/>

  <ef:folder id="root">
    <!-- Services go here -->
    ...
  </ef:folder>
</ef:agent>
```

Slide 21

UM42

?

Umberto Milletti, 12/14/2004

SM65

100%

Salvo Maccarone, 1/25/2005

Service Structure

ef:service *id*

ef:name

ef:info

ef:option *id type*

ef:action *id*

M97

100 %

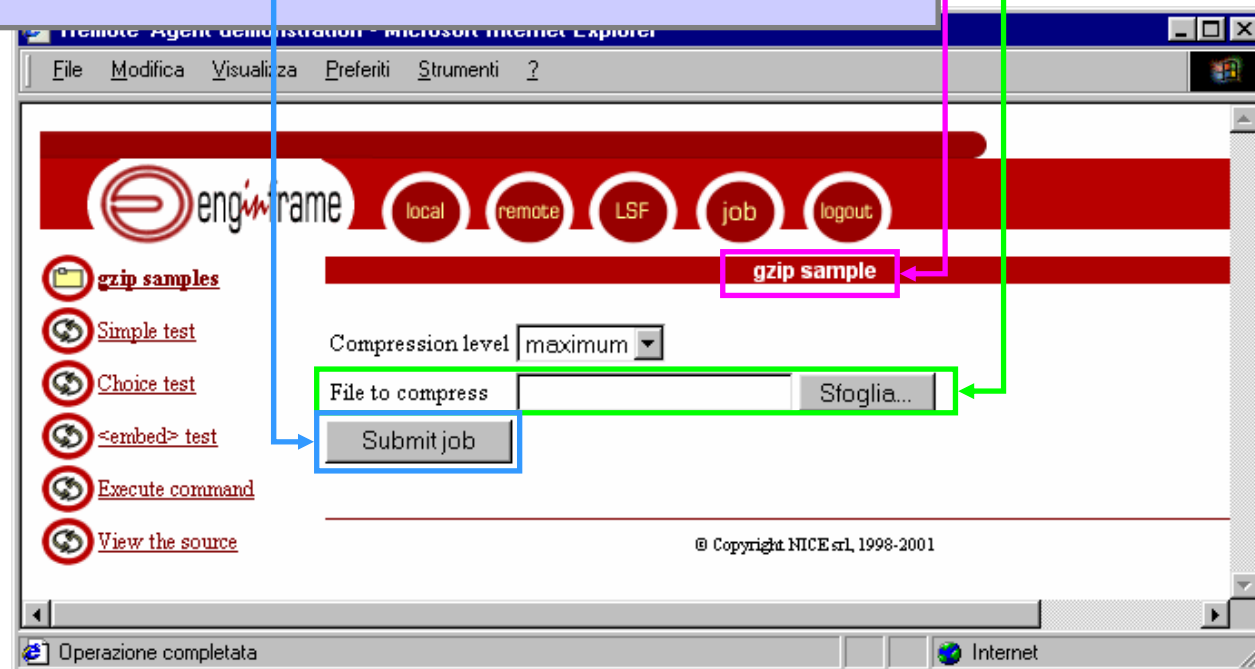
Mauri, 1/21/2005

Services Example

```

<ef:service id="gzip">
  <ef:name>gzip sample</ef:name>
  <ef:option id="level" label="Compression level" type="list">
    <ef:option id="9">maximum</ef:option>
    <ef:option id="4">medium</ef:option>
    <ef:option id="0">none</ef:option>
  </ef:options>
  <ef:option id="FILE" label="File to compress" type="file"/>
  <ef:action id="submit" label="Submit job">
    EF_SPOOLER_NAME="gzip $file"
    export EF_SPOOLER_NAME
    ${EF_ROOT}/plugins/lsf/bin/bsub -o output.txt gzip -$level \"${FILE}\"
  </ef:action>
</ef:service>

```



Slide 23

M96

100%

Mauri, 1/24/2005

Customizing the layout - Structure

- Layout structure:

- Left navigation tree with the list of services

- Central "content" area with forms and output from services

- Top Menu area

New Features of EnginFrame 4.0RC2! - Microsoft Internet Explorer

enginframe 4 NICE

Standard Demo Advanced Demo Your Data Your Jobs All Jobs Cluster Load Logout Help

New EnginFrame Features

- Since 4.0
 - LSF Job Array
 - Word count
 - Spooler Management
 - Dynamic Spooler
 - XSL Enhancements
 - Confirm action
 - Embed output in widgets
 - Output Streaming
- Since 3.5
- Since 3.3
- View the source

Embed output in widgets

This service demonstrates how to include input arriving from an embedded service into any HTML widget created by EnginFrame.

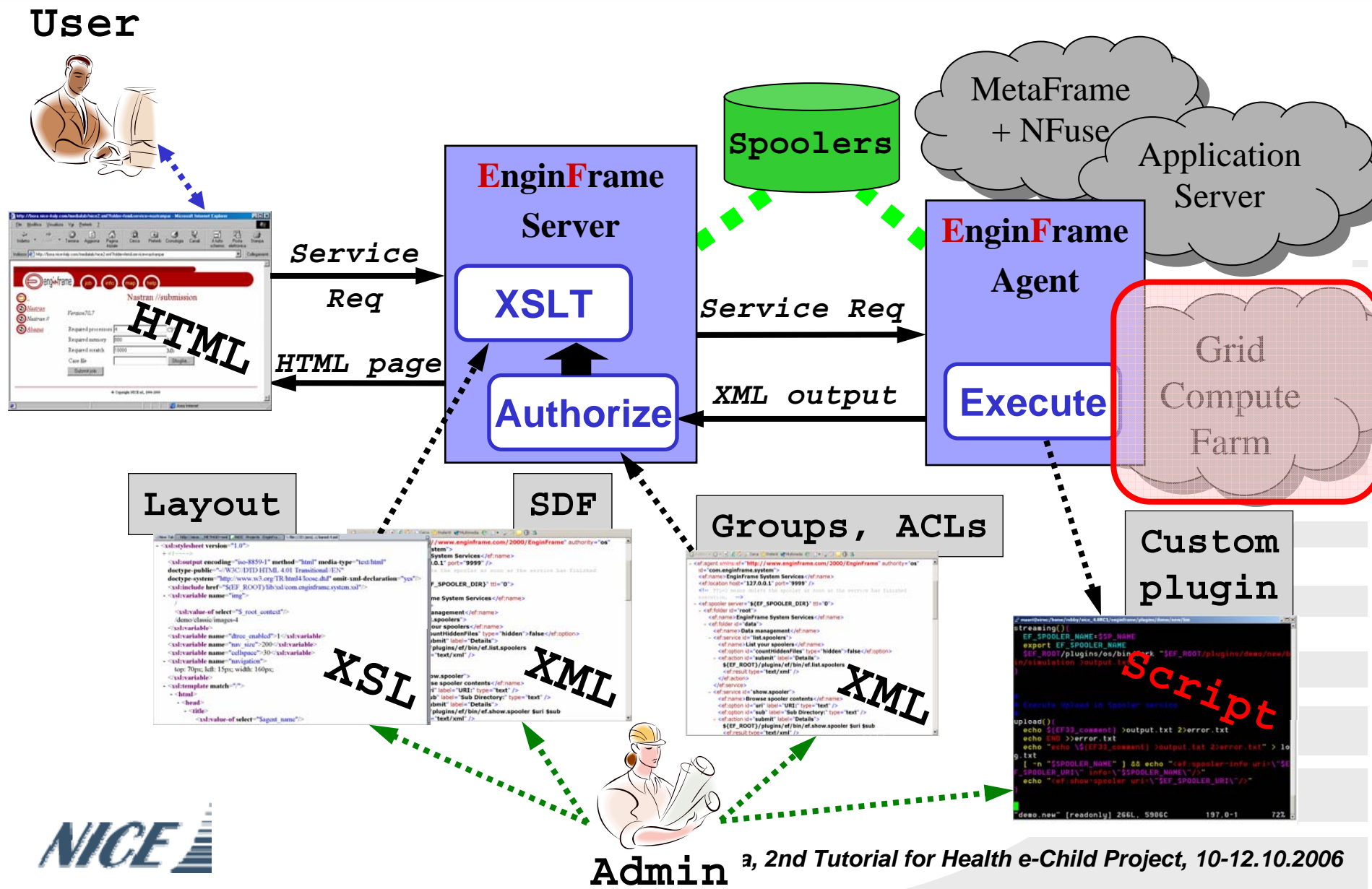
Text

User name

TextArea

Radio option RED GREEN BLUE

EnginFrame Working Environment



m117

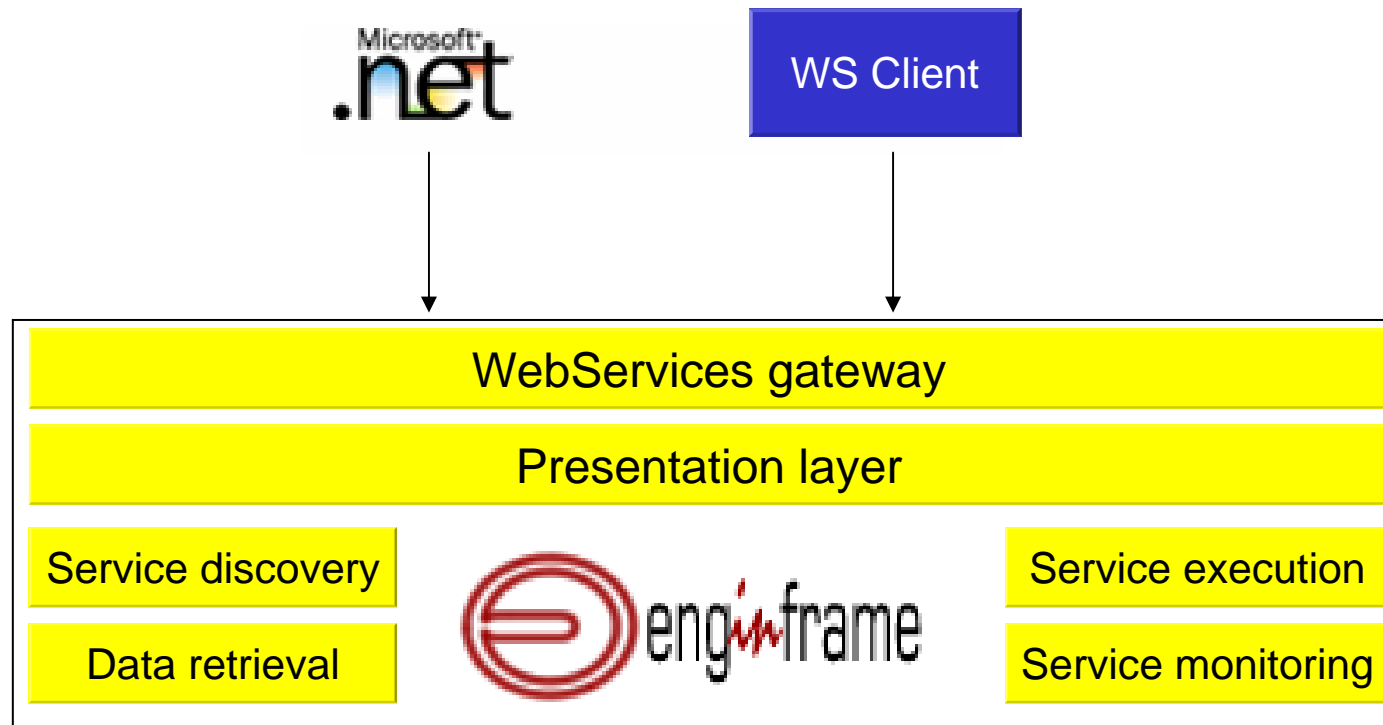
100%

mauri, 1/17/2005

GridML sample: job

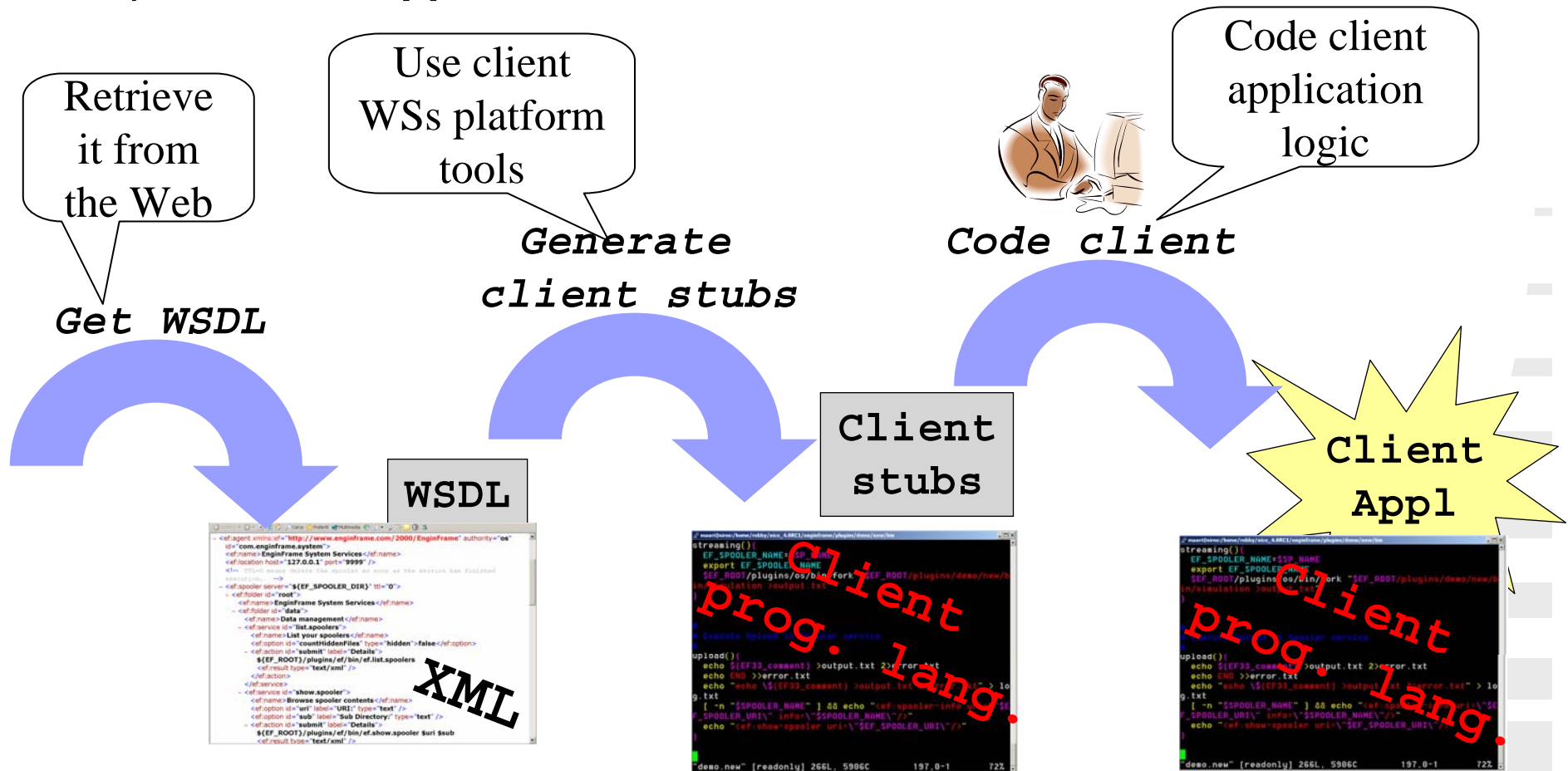
```
<grid:job-list type="lsf" xmlns:grid="http://www.enginframe.com/2000/GRID">
  <grid:job type="lsf" id="4120">
    <grid:owner>andrea</grid:owner>
    <grid:account>default</grid:account>
    <grid:status>DONE</grid:status>
    <grid:queue>priority</grid:queue>
    <grid:command>/usr/bin/spamc</grid:command>
    <grid:submission-time month="Jan" day="21" hour="23" minute="06" year="2005"/>
    <grid:submission-host>mail</grid:submission-host>
    <grid:submission-directory>$HOME</grid:submission-directory>
    <grid:execution-time month="Jan" day="21" hour="23" minute="06" year="2005"/>
    <grid:execution-host>mail</grid:execution-host>
    <grid:termination-time month="Jan" day="21" hour="23" minute="06" year="2005"/>
    <grid:total-cpu-usage>0.0</grid:total-cpu-usage>
    <grid:exit-code>0</grid:exit-code>
  </grid:job>
</grid:job-list>
```

EnginFrame as Web Services Gateway



EF Web Service – Client setting-up process

- EF WS Interface makes EF services available over HTTP from any SOAP compliant **client application**



Client Reference Implementation Software Bundle

- It is possible to request the EF Web Services Java Client Reference Implementation from support@enginframe.com
- The Java Client Reference Implementation software bundle includes
 - Java **stubs** classes
 - Java **client layer**: client + utility classes
 - Required **Java libraries**: Axis, Jakarta-httpclient
 - **Javadoc** of the client API
 - Client **examples** with sources
- Implementation for other languages (.NET, Python, Perl) are also available
- Build a layer over the stubs classes in order to provide a higher level application interface to EnginFrame.



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- GENIUS Portal
- Future perspectives

What is GENIUS?

- GENIUS is a powerful Grid Portal that allows scientists to exploit Grid resources only using a conventional Web browser
- It's a gateway to European EGEE Project's middle-ware
- It has been built on top of the EnginFrame framework
- It allows to expose gLite-enabled applications via Web-browser as well as Web Services

The GENIUS hourglass model



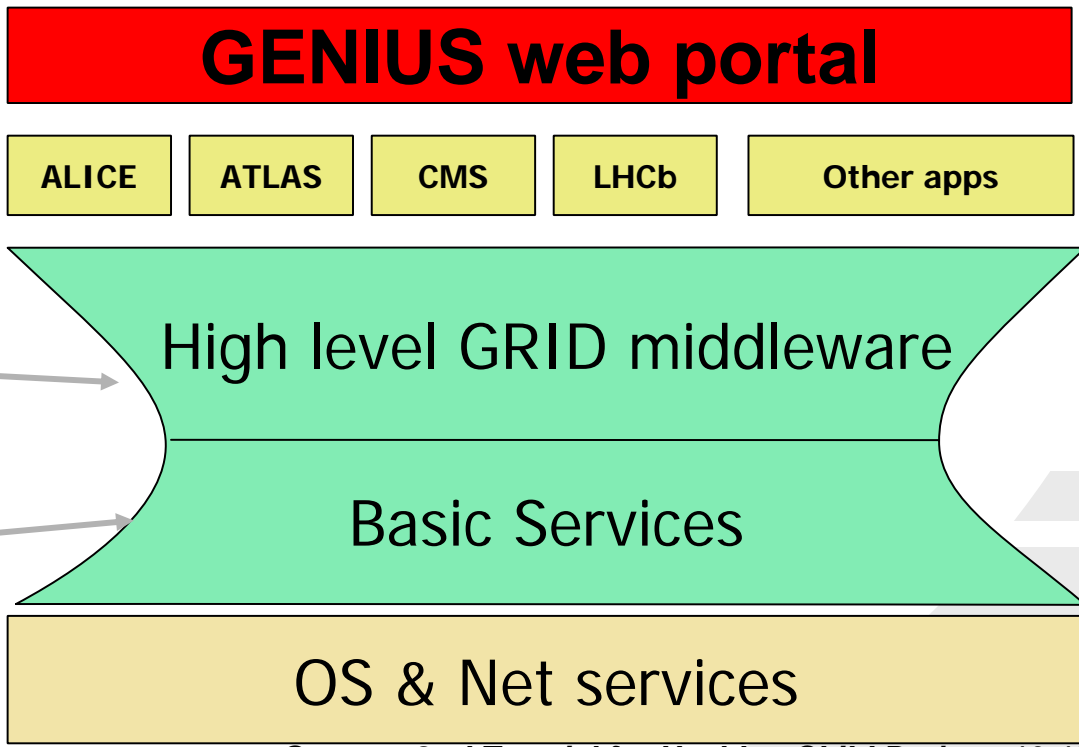
GENIUS

Grid Enabled web environment for site Independent

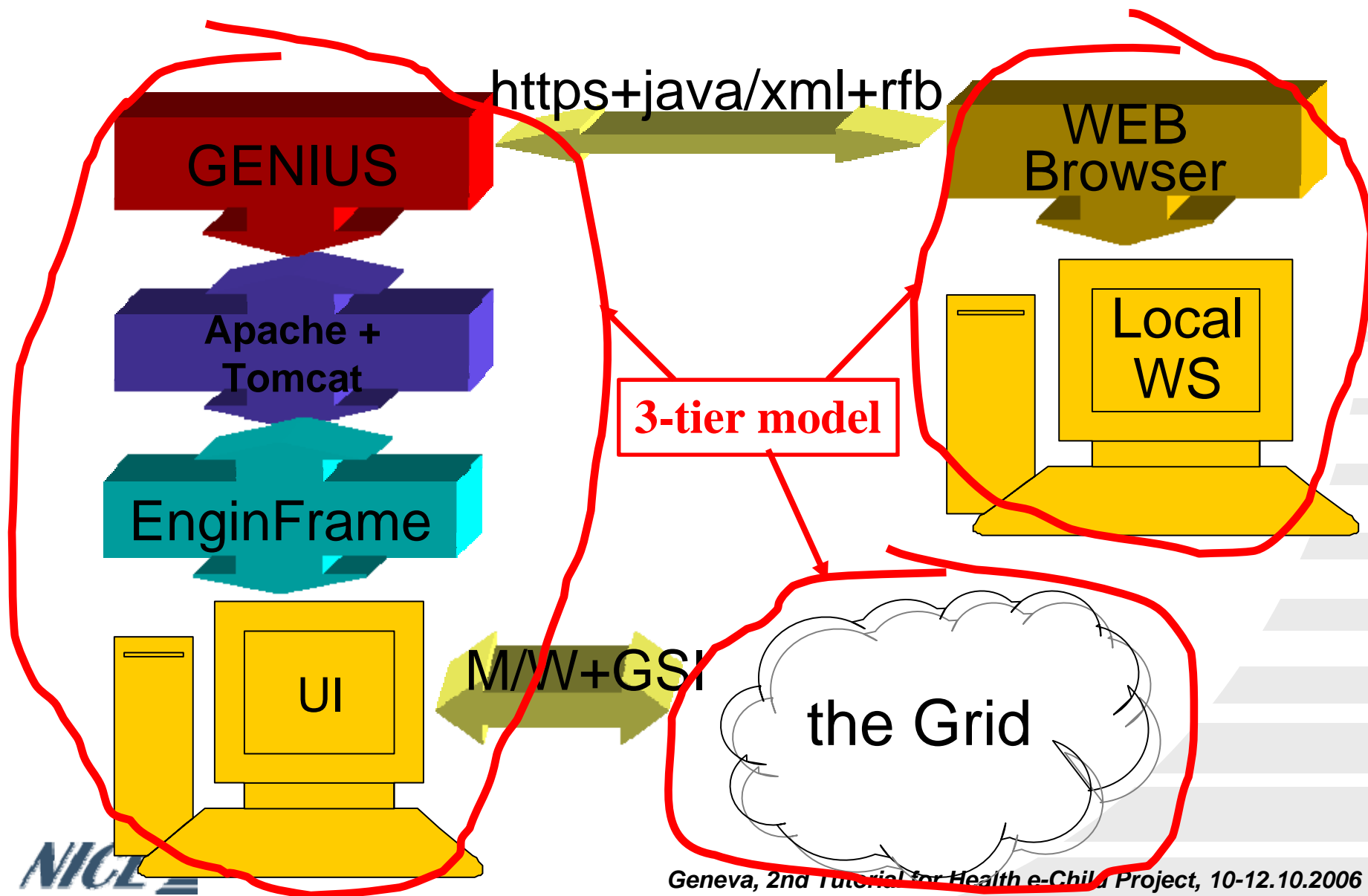
User job Submission

INFN / NICE Collaboration

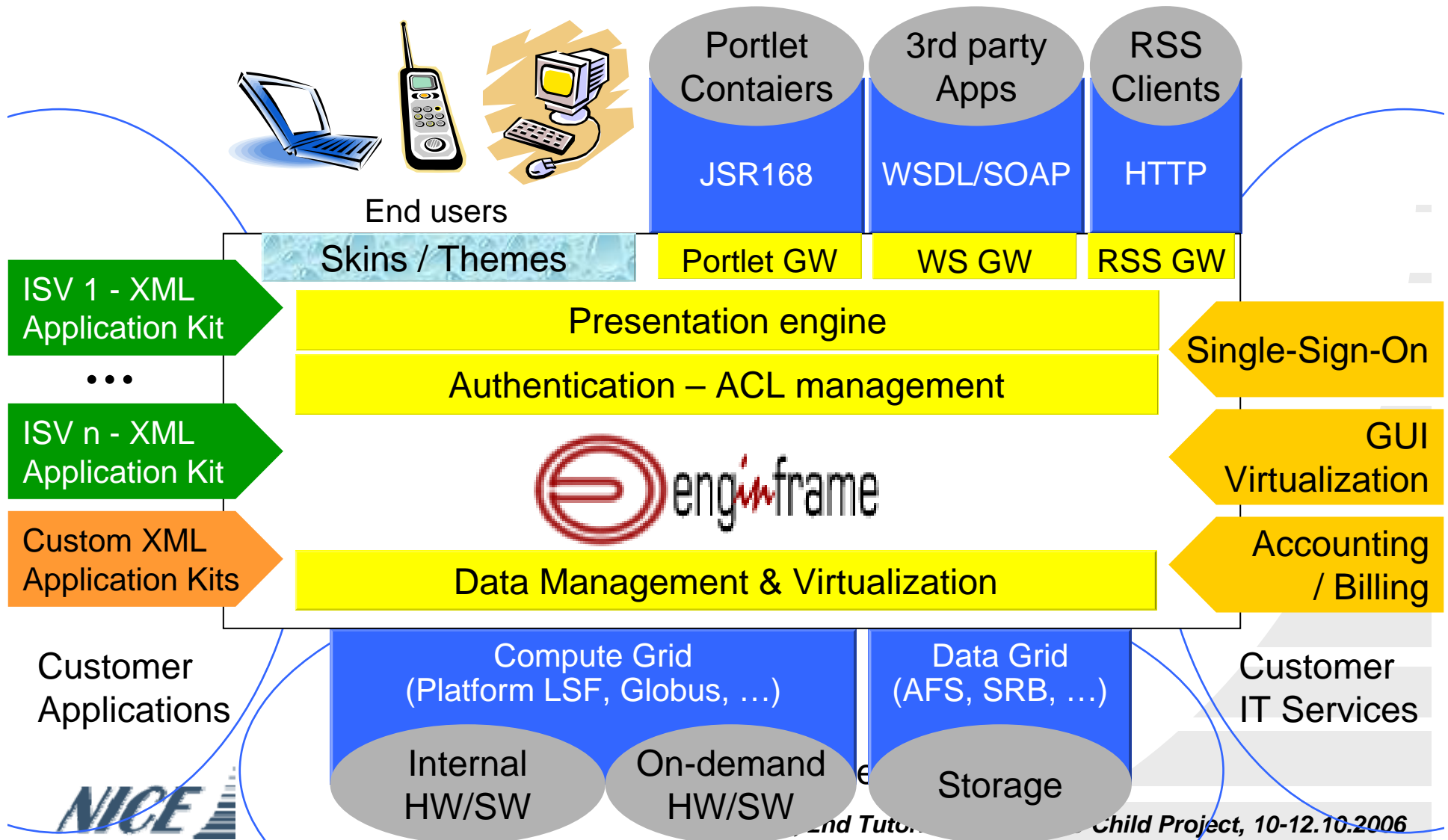
Applications' specific layer



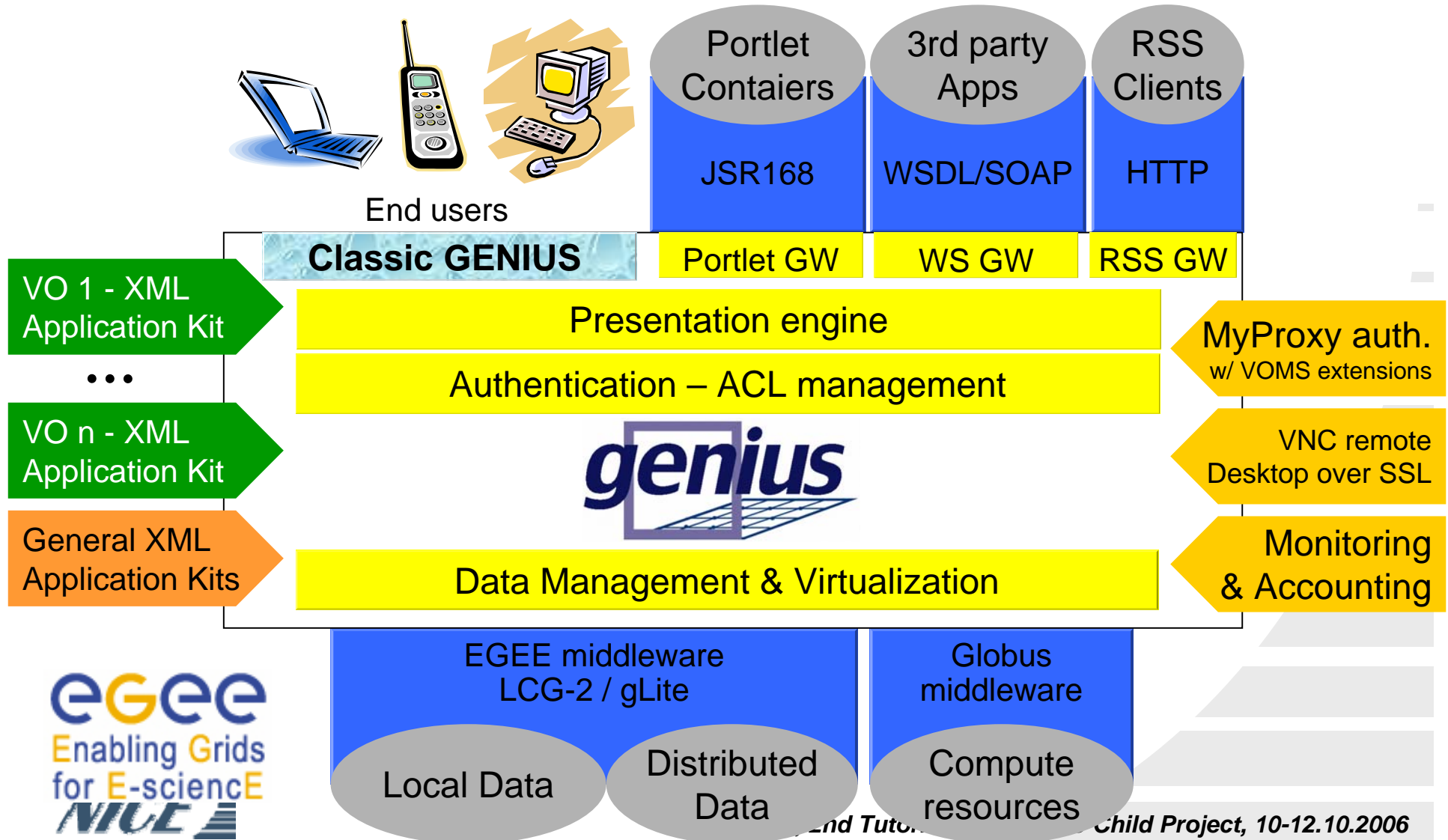
GENIUS Architecture



EnginFrame as Grid Gateway



GENIUS as Grid Gateway



GENIUS Grid Portal

Welcome to the GENIUS Grid Portal - Mozilla

INFN **eGEE** Enabling Grids for E-science Grid Enabled web Environment for **genius** site Independent User job Submission **enginframe** **NICE**

GENIUS Services

- File
- Security
 - MyProxy
 - VOMS Exts
 - Info on proxy
 - Change OS Password
 - Remove proxy & Logout
- Job
- Data
- Info
- Monitoring
- Interactive
- Preferences
- VO Services

Welcome to GENIUS Portal

ver. 3.0
compliant with [gLite-1](#) and [LCG-2](#) middlewares
[Credits](#)

This portal is best viewed with Mozilla 1.7.12 or higher.
Netscape (4.79, 4.80, 6 or higher) and Internet Explorer (5 or higher) can also be used.
The use of any other web browsers could induce some visualization mismatches and is not currently suggested.
powered by

Last update: **Fri 03 February 2006**

Reference Web Site: <https://genius.ct.infn.it>

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javascript: navigation.o(11);

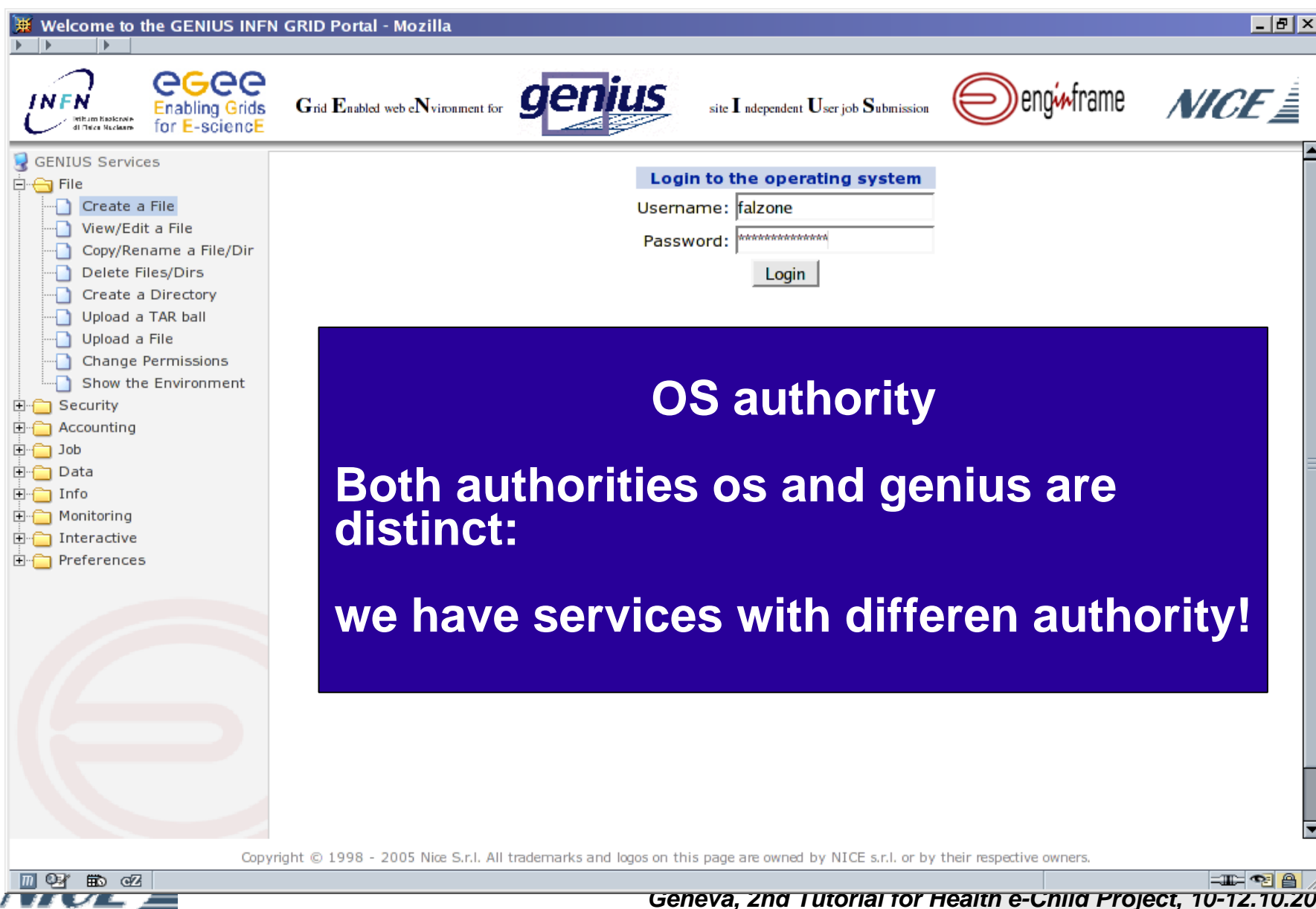
NICE

Geneva, 2nd Tutorial for Health e-Child Project, 10-12.10.2006

GENIUS: security infrastructure

- All web transactions are executed under the Secure Socket Layer (SSL) via HTTPS
- The user must have an account on the User Interface
- When the user wants to interact with the file-system of the UI, he gets prompted for the username and password of the account on that machine
- Grid authentication in GENIUS is currently based on the concept of user credentials delegation

GENIUS: files management



The screenshot shows a web browser window titled "Welcome to the GENIUS INFN GRID Portal - Mozilla". The page features several logos at the top: INFN (Istituto Nazionale di Fisica Nucleare), eGEE (Enabling Grids for E-science), genius (Grid Enabled web environment for site Independent User job Submission), enginframe, and NICE. On the left, a sidebar lists "GENIUS Services" under a "File" folder, including: Create a File, View/Edit a File, Copy/Rename a File/Dir, Delete Files/Dirs, Create a Directory, Upload a TAR ball, Upload a File, Change Permissions, and Show the Environment. Other service categories include Security, Accounting, Job, Data, Info, Monitoring, Interactive, and Preferences. The main content area contains a "Login to the operating system" form with fields for "Username: falzone" and "Password: *****", and a "Login" button. A large blue text box is overlaid on the page, stating: "OS authority Both authorities os and genius are distinct: we have services with differen authority!". At the bottom, a copyright notice reads: "Copyright © 1998 - 2005 Nice S.r.l. All trademarks and logos on this page are owned by NICE s.r.l. or by their respective owners." The browser's taskbar at the bottom shows the NICE logo and system icons.

GENIUS: files management

The screenshot shows a web browser window titled "Welcome to the GENIUS INFN GRID Portal - Mozilla". The page features several logos at the top: INFN (Istituto Nazionale di Fisica Nucleare), eGEE (Enabling Grids for E-science), genius (Grid Enabled web Environment for site Independent User job Submission), enginframe, and NICE. Below the logos, there is a navigation bar with "Welcome falzone", "Your Data", and "Logout" links. On the left side, a "GENIUS Services" menu is visible, listing various file management actions such as "Create a File", "View/Edit a File", "Copy/Rename a File/Dir", "Delete Files/Dirs", "Create a Directory", "Upload a TAR ball", "Upload a File", "Change Permissions", and "Show the Environment". The main content area is titled "Create a File" and contains the following text: "With this service you may create a file in your home directory." Below this text are two input fields: "Base Path" with a "Select..." button and "default is HOME" text, and "FileName" with an empty text box. A large text area below these fields is labeled "Write here or copy and paste from a local file". To the right of the main content area, a file browser window is open, displaying a list of directories in the "/home/falzone" path. The list includes folders like "altrtest", "falzone_2xpGDGai6xDZJLg597W1HA", "falzone_3PKbSyRA7X1JM-ikJOUUQ", "falzone_6AreA9FBp9fH8dR10bo0QQ", "falzone_UwcUmK8Y5x6VSgE2NVwaTg", "falzone_Wrf6HbxD2J1rkq1INV054Q", "falzone_XpUvqJo6wKba0upDX9V-8g", "falzone_XuxWQMDawn3NRI3W_yLp9g", "falzone_dGCVFzAWu5txdeg1VrPhBQ", "falzone_efLEL2KXsmUZ34Gve598Yg", "falzone_fycmMa3Cxo2_cyr4qb5Pg", "falzone_k7z7qvWk7IX-f2JzuTx37w", "falzone_oW5AdVuQXq73dotubmwaug", "falzone_pHLRY3KKMO7SMwxhFnAjHA", "falzone_povDeEyZDL4cS0zegft_A", "falzone_pv4edRPd2m9O7ucA7Hq9gw", "falzone_yvsKAxmF9b3_Ku1PtaZ46w", and "falzone_z45715x7772a5E7uDNr40". At the bottom of the file browser window, there is a "Path:" field containing "/home/falzone" and "OK" and "Cancel" buttons. A large red watermark with the text "Remote File Browser On the User Interface" is overlaid diagonally across the center of the screenshot. At the bottom of the browser window, a copyright notice reads: "Copyright © 1998 - 2005 Nice S.r.l. All trademarks and logos on this page are owned by NICE s.r.l. or by their respective owners." The browser's status bar at the very bottom shows "Done" and a small "NICE" logo.

GENIUS: files management

The screenshot displays the GENIUS web portal interface within a Mozilla browser window. The title bar reads "Welcome to the GENIUS INFN GRID Portal - Mozilla". The page header features logos for INFN (Istituto Nazionale di Fisica Nucleare), eGEE (Enabling Grids for E-science), genius (Grid Enabled web Environment for site Independent User job Submission), enginframe, and NICE.

The main content area is titled "Create a File" and includes the following elements:

- A navigation menu on the left under "GENIUS Services" with options: File, Security, Accounting, Job, Data, Info, Monitoring, Interactive, and Preferences. The "File" sub-menu is expanded, showing: Create a File, View/Edit a File, Copy/Rename a File/Dir, Delete Files/Dirs, Create a Directory, Upload a TAR ball, Upload a File, Change Permissions, and Show the Environment.
- A description: "With this service you may create a file in your home directory."
- Form fields: "Base Path" with a "Select..." button and the text "default is HOME"; "FileName" with the value "try.txt".
- A text area for content: "Write here or copy and paste from a local file" containing the text "This is a test file."
- A "Save" button at the bottom of the form.

At the bottom of the page, a copyright notice states: "Copyright © 1998 - 2005 Nice S.r.l. All trademarks and logos on this page are owned by NICE s.r.l. or by their respective owners." The browser's status bar shows "Done" and various icons.

GENIUS: files management

The screenshot displays the GENIUS INFN GRID Portal in a Mozilla browser window. The page header includes logos for INFN, eGEE (Enabling Grids for E-science), GENIUS (Grid Enabled web Environment for site Independent User job Submission), enginframe, and NICE. A navigation bar shows 'Welcome falzone', 'Your Data', and 'Logout'. A left sidebar lists 'GENIUS Services' such as File, Security, Accounting, Job, Data, Info, Monitoring, Interactive, and Preferences. The main content area, titled 'View/Edit a File', displays the following XML service definition:

```
<ef:service id="edit-file">
  <ef:name>View/Edit a File</ef:name>
  <ef:info>With this service you may edit
    a file in your home directory.
  </ef:info>
  <ef:option id="filetoedit"
    label="Select File to View/Edit"
    type="rfb"
    base="{HOME}"
    target="@genius"/>
  <ef:action id="view" label="View">
    $EF_ROOT/plugins/genius/bin/geniusgrid.sh view-file
  <ef:result type="text/html"/>
</ef:action>
  <ef:action id="edit" label="Edit">
    $EF_ROOT/plugins/genius/bin/geniusgrid.sh edit-file
  <ef:result type="text/xml"/>
</ef:action>
</ef:service>
```

At the bottom of the browser window, a copyright notice reads: 'Copyright © 1998 - 2005 Nice S.r.l. All trademarks and logos on this page are owned by NICE s.r.l. or by their respective owners.'

GENIUS: files management

The screenshot displays the GENIUS web portal interface. At the top, there are logos for INFN, eGEE (Enabling Grids for E-science), genius, site Independent User job Submission, enginframe, and NICE. Below the logos, a navigation bar includes 'Welcome falzone', 'Your Data', and 'Logout'. The main content area is titled 'Change Permissions' and contains the following text: 'With this service you can change user permissions to a generic file in your home directory.' Below this text is a form with a 'Select a file' input field and a 'Select...' button. To the right of the input field is a table for setting permissions:

	User	Group	Others
<input checked="" type="checkbox"/> Read	<input type="checkbox"/> Read	<input type="checkbox"/> Read	
<input checked="" type="checkbox"/> Write	<input type="checkbox"/> Write	<input type="checkbox"/> Write	
<input type="checkbox"/> Exec	<input type="checkbox"/> Exec	<input type="checkbox"/> Exec	

Below the table is a 'Change' button. On the left side of the interface, there is a sidebar menu under 'GENIUS Services' with a tree structure: File (Create a File, View/Edit a File, Copy/Rename a File/Dir, Delete Files/Dirs, Create a Directory, Upload a TAR ball, Upload a File, Change Permissions, Show the Environment), Security, Accounting, Job, Data, Info, Monitoring, Interactive, and Preferences. At the bottom of the page, there is a copyright notice: 'Copyright © 1998 - 2005 Nice S.r.l. All trademarks and logos on this page are owned by NICE s.r.l. or by their respective owners.'

GENIUS: Grid Authentication with Myproxy

Welcome to the GENIUS INFN GRID Portal - Mozilla

INFN **eGEE** Enabling Grids for E-scienceE
Grid Enabled web eNvironment for **genius** site Independent User job Submission **enginframe** **NICE**

GENIUS Services

- File
- Security
 - MyProxy
 - VOMS Exts
 - Info on proxy
 - Change OS Password
 - Remove proxy & Logout
- Accounting
- Job
- Data
- Info
- Monitoring
- Interactive
- Preferences

Login to the GRID

Username: falzone

MyProxy Passphrase: *****

Validity (hours): 4

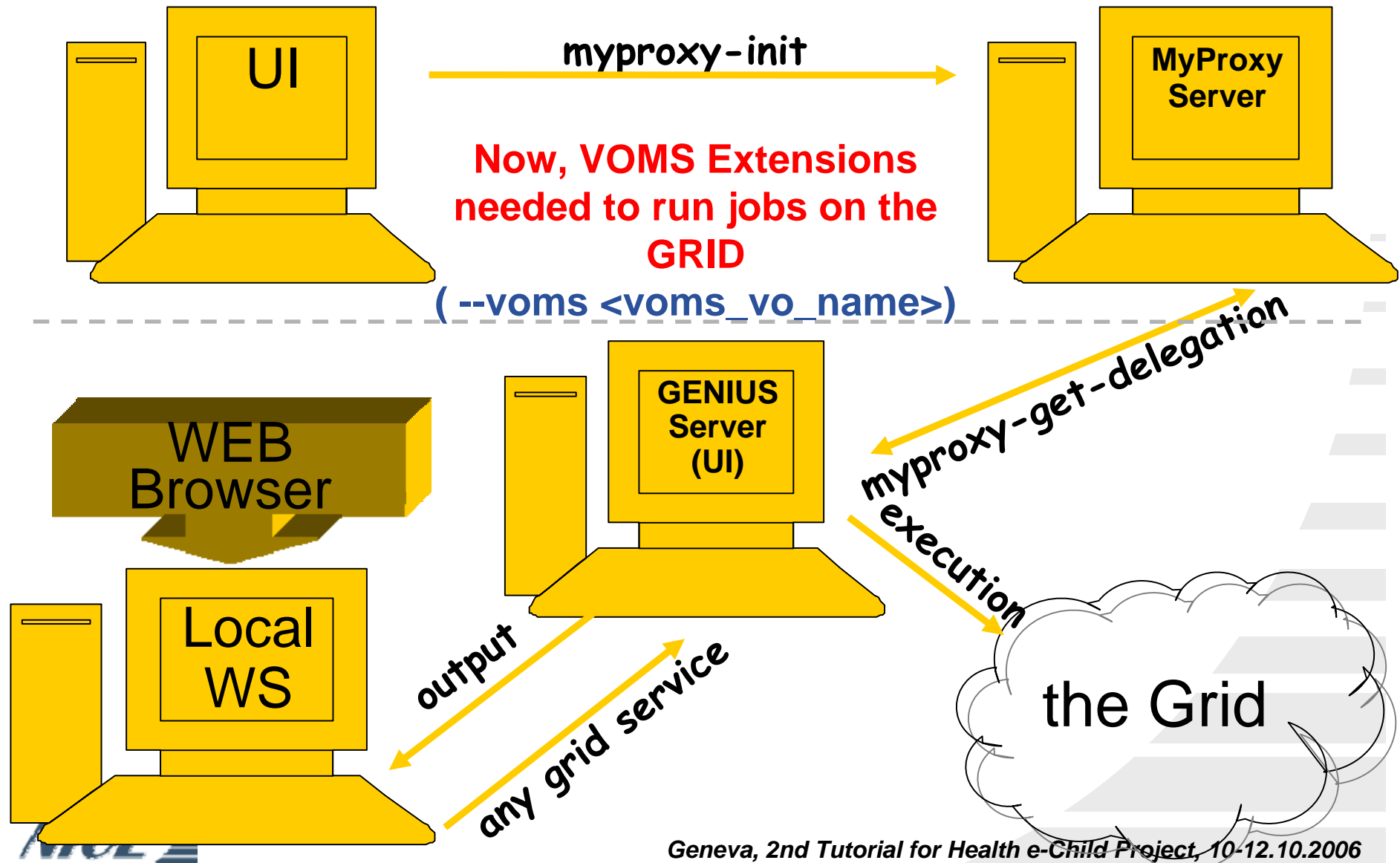
Login

myproxy-get-delegation

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Grid authentication with MyProxy



GENIUS: security

The screenshot shows a web browser window titled "Welcome to the GENIUS INFN GRID Portal - Mozilla". The page features a header with logos for INFN, eGEE (Enabling Grids for E-science), genius (Grid Enabled web eNvironment for), site Independent User job Submission, enginframe, and NICE. Below the header is a navigation bar with "Welcome falzone", "Your Data", and "Logout" links. A left sidebar lists "GENIUS Services" including File, Security, MyProxy, VOMS Exts, Accounting, Job, Data, Info, Monitoring, Interactive, and Preferences. The main content area is titled "MyProxy Init" and contains a "MyProxy Settings" form with the following fields: MyProxy host (grid001.ct.infn.it), MyProxy Account Name (falzone), Grid PassPhrase (masked), MyProxy PassPhrase (masked), MyProxy PassPhrase Confirmation (masked), and Lifetime (7). To the right of the settings is an "Action" panel with buttons for "Init", "Info on myproxy", "Destroy", and "Delete Pem's files". Below the settings are "End", "Prev", "Next", and "Reset" buttons. At the bottom, an "Applet Time Life" section shows "Available time: 00:03:50". The footer contains a copyright notice: "Copyright © 1998 - 2005 Nice S.r.l. All trademarks and logos on this page are owned by NICE s.r.l. or by their respective owners." and a status bar with the text "Applet org.gbbus.cog.security.cert.management.MyProxyApplet started".

GENIUS: preferences

The screenshot shows a Mozilla browser window titled "Welcome to the GENIUS INFN GRID Portal - Mozilla". The page header includes logos for INFN, eGEE (Enabling Grids for E-science), genius, site Independent User job Submission, enginframe, and NICE. Below the header, a navigation bar displays "Welcome falzone" and system information: "Resource Broker: gilda_glite", "Virtual Organization: gilda", "Catalog Type: fireman", "Catalog I/O: cnaf", "Your Data", and "Logout".

The main content area is titled "Grid Settings" and contains the following text:

With this service you can select the Resource Broker and the Replica Location Server you want to use.

It is possible also to set the MyProxy Server on which you stored your temporary proxy to get from GRID Authentication.

The settings are as follows:

Resource Broker (RB):	<input type="text" value="gilda glite (currently selected)"/>
Catalog Type:	<input type="text" value="fireman (currently selected)"/>
Catalog I/O server:	<input type="text" value="cnaf (currently selected)"/>
MyProxy Server:	<input type="text" value="grid001.ct.infn.it (currently selected)"/>
DGAS Price Authority Server:	<input type="text" value="gilda (currently selected)"/>
DGAS Home Location Register Server:	<input type="text" value="gilda (currently selected)"/>

An "Update" button is located below the settings.

The left sidebar shows a tree view of "GENIUS Services" with "Grid Settings" selected under "Preferences".

At the bottom of the browser window, a copyright notice reads: "Copyright © 1998 - 2005 Nice S.r.l. All trademarks and logos on this page are owned by NICE s.r.l. or by their respective owners." The system tray shows the date and time as 10:12:10 AM on 10/12/2006.

GENIUS: Job Editor for jdl files

The screenshot displays the GENIUS Job Editor interface within a Mozilla browser window. The browser title is "Welcome to the GENIUS Portal - Mozilla". The page header includes logos for INFN, eGee (Enabling Grids for E-science), genius (Grid Enabled web eNvironment for site Independent User job Submission), enginframe, and NICE. A navigation bar shows "Welcome falzone" and various system parameters: "Resource Broker: gilda_glite", "Virtual Organization: gilda", "Catalog Type: fireman", "Catalog I/O: cnaf", "Your Data", and "Logout".

On the left, a "GENIUS Services" sidebar lists folders for File, Security, Accounting, Job, GUI, Data, Info, Monitoring, Interactive, and Preferences. The "GUI" folder is expanded, showing "Job Editor" (highlighted), "Workflow Editor", "Close GUI Session", "Job Submission", "Job Queue", "Clean Job Queues", and "List Available Resources".

The main content area features a "Job GUI" header and a message: "Job GUI Session open in a new Window." Below this, a new browser window is open at "https://nbaitna.ct.infn.it:7801 - falzone's desktop - Mozilla". This window contains the "JDL Editor" application, which has a menu bar with "File" and "Help". The application has several tabs: "Type", "Files", "Environment", "Input Data", "Output Data", "Requirements", "Rank", and "Tags".

The "JDL Editor" form includes the following fields and controls:

- Virtual Organisation:** A text input field.
- Executable:** A text input field with a file selection icon and a "Remote" checkbox.
- Arguments:** A text input field.
- Standard Streams:**
 - StdInput:** A text input field with a file selection icon and a "Remote" checkbox.
 - StdOutput:** A text input field with an "Add to Output Sandbox" checkbox.
 - StdError:** A text input field with an "Add to Output Sandbox" checkbox.
- Input Sandbox:** A text input field with a file selection icon, an "Add" button, and a "Remove" button.

The bottom of the browser window shows a status bar with "Applet VncViewer started" and a copyright notice: "Copyright © 1998 - 2005 Nice S.r.l. All trademarks and logos on this page are owned by NICE s.r.l. or by their respective owners."

GENIUS: Job Submission

Welcome to the GENIUS Portal - Mozilla

INFN egee Enabling Grids for E-science Grid Enabled web eNvironment for genius site Independent User job Submission enginframe NICE

Welcome falzone Resource Broker: gilda_glite Virtual Organization: gilda Catalog Type: fireman Catalog I/O: cnaf Your Data Logout

Job Submission

Please, select a JDL file to submit. You may also choose a Resource Broker to connect to.

JDL File

https://nbaitna.ct.infn.it - /home/falzone/gl

Easter.jdl	757	-rw-r--r--
EtnaPerGRID.jdl	1118	-rw-r--r--
Mozart_K545.jdl	688	-rw-r--r--
ball.jdl	791	-rw-r--r--
c_sample.jdl	348	-rw-r--r--
con_rod1.jdl	843	-rw-r--r--
csound.jdl	408	-rw-r--r--
csound_hw1.jdl	485	-rw-r--r--
demtools.jdl	1158	-rw-r--r--
demtools2.jdl	415	-rw-r--r--
demtools3.jdl	436	-rw-r--r--
env.jdl	163	-rw-r--r--
g95compiler.jdl	795	-rw-r--r--
gear.jdl	431	-rw-r--r--
helloworld.jdl	798	-rw-r--r--
hostname.jdl	186	-rw-r--r--
hostname_catania.jdl	249	-rw-r--r--
interactive.jdl	194	-rw-r--r--
jacopi.jdl	776	-rw-r--r--
mills.jdl	749	-rw-r--r--
mpi-glite.jdl	534	-rw-r--r--
mpi-lcg.jdl	389	-rw-r--r--
mpi.jdl	385	-rw-r--r--

Path:

Selected:

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Done

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GENIUS: Job Submission

The screenshot shows a Mozilla browser window titled "Welcome to the GENIUS Portal - Mozilla". The page header includes logos for INFN, eGee (Enabling Grids for E-science), genius (Grid Enabled web eNvironment for), site Independent User job Submission, enginframe, and NICE. A navigation bar below the header displays "Welcome falzone" and system information: "Resource Broker: gilda_glite", "Virtual Organization: gilda", "Catalog Type: fireman", "Catalog I/O: cnaf", "Your Data", and "Logout".

The left sidebar shows a tree view of "GENIUS Services" with folders for File, Security, Accounting, Job, Data, Info, Monitoring, Interactive, and Preferences. The "Job" folder is expanded, showing sub-items: GUI, Job Submission (highlighted), Job Queue, Clean Job Queues, and List Available Resources.

The main content area is titled "Job Submission" and displays the following text:

```
Selected Virtual Organisation name (from --vo option): gilda
Connecting to host glite-rb.ct.infn.it, port 7772
Logging to host glite-rb.ct.infn.it, port 9002

===== glite-job-submit Success =====
The job has been successfully submitted to the Network Server.
Use glite-job-status command to check job current status. Your job identifier is:

- https://glite-rb.ct.infn.it:9000/QM16fXx-KN1oHNm2HtP3rA

The job identifier has been saved in the following file:
/home/falzone/.genius/.tmp_submittedjob_falzone
=====
```

At the bottom of the browser window, a copyright notice reads: "Copyright © 1998 - 2005 Nice S.r.l. All trademarks and logos on this page are owned by NICE s.r.l. or by their respective owners." The system tray at the bottom shows the date "Done" and various icons.

GENIUS: Job Queue

Welcome to the GENIUS Portal - Mozilla

INFN egee Enabling Grids for E-science Grid Enabled web eNvironment for genius site Independent User job Submission enginframe NICE

Welcome faizone Resource Broker: gilda_glite Virtual Organization: gilda Catalog Type: fireman Catalog I/O: cnaf Your Data Logout

Job Queue

#	Globus Job ID	Last Update Time	Status	Destination	Exit Code
33	8rx1w7Kw4b01ZMXHqFChHw	2006 Jan 8 14:50	Ready	glite-ce.ct.infn.it:2119/blah-pbs-short	
32	BFpXqz8-Qk6GI52UO8Q8cg	2006 Jan 8 14:48	Ready	egee008.cnaf.infn.it:2119/blah-pbs-infinite	
31	ug271XmY1vGWyadRJ-6vqg	2006 Jan 8 14:48	Ready	egee008.cnaf.infn.it:2119/blah-pbs-short	
30	QMI6fXx-KN1oHNm2HtP3rA	2006 Jan 8 14:45	Ready	egee008.cnaf.infn.it:2119/blah-pbs-infinite	
29	ivKeaRNJtYijhTfjaaeaAA	2006 Jan 2 16:43	Done	egee008.cnaf.infn.it:2119/blah-pbs-long	0
24	nNW0pQgp_vTNVaTGcAU8rQ	2005 Dec 28 20:15	Done	glite-ce.ct.infn.it:2119/blah-pbs-long	0
22	XpUvqJo6wKba0upDX9V-8g	2005 Dec 28 19:59	Done	glite-ce.ct.infn.it:2119/blah-pbs-short	0
21	MIZ-y3MIPkNLfxBcivit5A	2005 Dec 28 19:59	Done	ixcde01.pd.infn.it:2119/blah-pbs-infinite	0
20	XuxWQMDawn3NRI3W_yLp9g	2005 Dec 28 18:11	Done	glite-ce.ct.infn.it:2119/blah-pbs-short	0
17	eciQWhy4UoPbTZmgRhfxJA	2005 Dec 28 16:52	Done	gilda-ce-01.pd.infn.it:2119/jobmanager-lcgpbs-short	0
16	rvZJgqldmlEBWC-4jgv1tg	2005 Dec 28 15:08	Done	glite-ce.ct.infn.it:2119/blah-pbs-short	0
3	LXplqV3AlcoQssrUWpTofA	2005 Dec 27 23:12	Done	grid004.iucc.ac.il:2119/jobmanager-lcgpbs-long	0
2	X4PZT3vFMk_EOaHF0bq7zw	2005 Dec 27 23:12	Done	grid004.iucc.ac.il:2119/jobmanager-lcgpbs-infinite	0
1	oKUA3k-0_CIEyTpiXBTYyA	2005 Dec 27 23:11	Done	grid004.iucc.ac.il:2119/jobmanager-lcgpbs-infinite	0

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Done

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Code for Job Queue management rewritten using GridML tags

GENIUS: Job Queue

Welcome to the GENIUS Portal - Mozilla

INFN egee Enabling Grids for E-science Grid Enabled web eNvironment for genius site Independent User job Submission enginframe NICE

Welcome falzone Resource Broker: gilda_glite Virtual Organization: gilda Catalog Type: fireman Catalog I/O: cnaf Your Data Logout

GENIUS Services

- File
- Security
- Accounting
- Job
 - GUI
 - Job Submission
 - Job Queue
 - Clean Job Queue
 - List Available Resources
- Data
- Info
- Monitoring
- Interactive
- Preferences

Job Queue

https://nbaitna.ct.infn.it

Do you really want to get output of job https://glite-rb.ct.infn.it:9000/QMI6fXx-KN1oHNm2HtP3rA?

OK Cancel

29	vKearNjYtYjnlTjaaaaAA	2006 Jan 2 16:43	Done	glite-ce.ct.infn.it:2119/blah-pbs-long	0
24	nNW0pQgp_vTNVaTGcAU8rQ	2005 Dec 28 20:15	Done	glite-ce.ct.infn.it:2119/blah-pbs-long	0
22	XpUvqJo6wKba0upDX9V-8g	2005 Dec 28 19:59	Done	glite-ce.ct.infn.it:2119/blah-pbs-short	0
21	MIZ-y3MIPkNlfxBcivit5A	2005 Dec 28 19:59	Done	lxcde01.pd.infn.it:2119/blah-pbs-infinite	0
20	XuxWQMDawn3NRI3W_yLp9g	2005 Dec 28 18:11	Done	glite-ce.ct.infn.it:2119/blah-pbs-short	0
17	eciQWny4UoPbTZmgRhfjA	2005 Dec 28 16:52	Done	gilda-ce-01.pd.infn.it:2119/jobmanager-lcgpbs-short	0
16	rvZJgqldmiEBWC-4jgv1tg	2005 Dec 28 15:08	Done	glite-ce.ct.infn.it:2119/blah-pbs-short	0
3	LXplqV3AlcoQssrJWpTofA	2005 Dec 27 23:12	Done	grid004.iucc.ac.il:2119/jobmanager-lcgpbs-long	0
2	X4PZT3vFMk_EOaHF0bq7zw	2005 Dec 27 23:12	Done	grid004.iucc.ac.il:2119/jobmanager-lcgpbs-infinite	0
1	oKUA3k-0_CIEyTpiXBtYyA	2005 Dec 27 23:11	Done	grid004.iucc.ac.il:2119/jobmanager-lcgpbs-infinite	0

New Confirmation Message!

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GENIUS: Job Queue - Spooler

Welcome to the GENIUS Portal - Mozilla

INFN **egee** Enabling Grids for E-science
Grid Enabled web eNvironment for **genius** site Independent User job Submission **enginframe** **NICE**

Welcome **faizone** Resource Broker: gilda_glite Virtual Organization: gilda Catalog Type: fireman Catalog I/O: catania Your Data Logout

GENIUS Services

- File
- Security
- Accounting
- Job
 - GUI
 - Job Submission
 - Job Queue**
 - Clean Job Queues
 - List Available Resources
- Data
- Info
- Monitoring
- Interactive
- Preferences

20060108_211105_fx2vwJlQZv6Jlak89sVMXXv Jan 09, 2006 21:10:57

File Name	Submission Date	Size
<input type="checkbox"/> ball.out	Jan 08, 2006 21:10:58	0
<input type="checkbox"/> final_ball.gif	Jan 08, 2006 21:11:00	915033
<input type="checkbox"/> ball.err.txt	Jan 08, 2006 21:10:59	186804

Toggle select
Clear select
Action...

final_ball.gif (GIF Image, 320x250 pixels) - Mozilla

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GENIUS: Data & Grid Catalogs

Welcome to the GENIUS Portal - Mozilla

INFN **egee** Enabling Grids for E-science
Grid Enabled web eNvironment for **genius** site Independent User job Submission **enginframe** **NICE**

Welcome faizone Resource Broker: gilda_glite Virtual Organization: gilda Catalog Type: fireman Catalog I/O: cnaf Your Data Logout

Manage Dir on Catalog

With this service you can create or remove a directory on the Catalog of your Virtual Organization. As mandatory requirement, the directory to remove must be empty.

Select the base dir / The default value is /

Path: /

Selected:

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GENIUS: Interactive

The screenshot displays the GENIUS Portal web interface within a Mozilla browser window. The main content area is titled "Open Desktop" and shows a remote desktop session titled "https://nbaitna.ct.infn.it:7801 - falzone's desktop - Mozilla". The desktop environment is a Linux system with a terminal window open, showing the command `[nbaitna] /home/falzone > xclock` and the execution of the `xclock` application, which displays a clock. The desktop is titled "Tight VNC".

The portal header includes logos for INFN, eGEE (Enabling Grids for E-science), genius (Grid Enabled web eNvironment for), site Independent User job Submission, enginframe, and NICE. A navigation bar below the header shows "Welcome falzone", "Resource Broker: gilda_glite", "Virtual Organization: gilda", "Catalog Type: fireman", "Catalog I/O: cnaf", "Your Data", and "Logout".

A sidebar on the left lists "GENIUS Services" including File, Security, Accounting, Job, Data, Info, Monitoring, Interactive (with sub-items: Open Desktop, Close Desktop, Set Desktop Password), and Preferences.

At the bottom of the browser window, a status bar indicates "Applet VncViewer started".

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GENIUS & TRIANA Graphic Workflow Editor

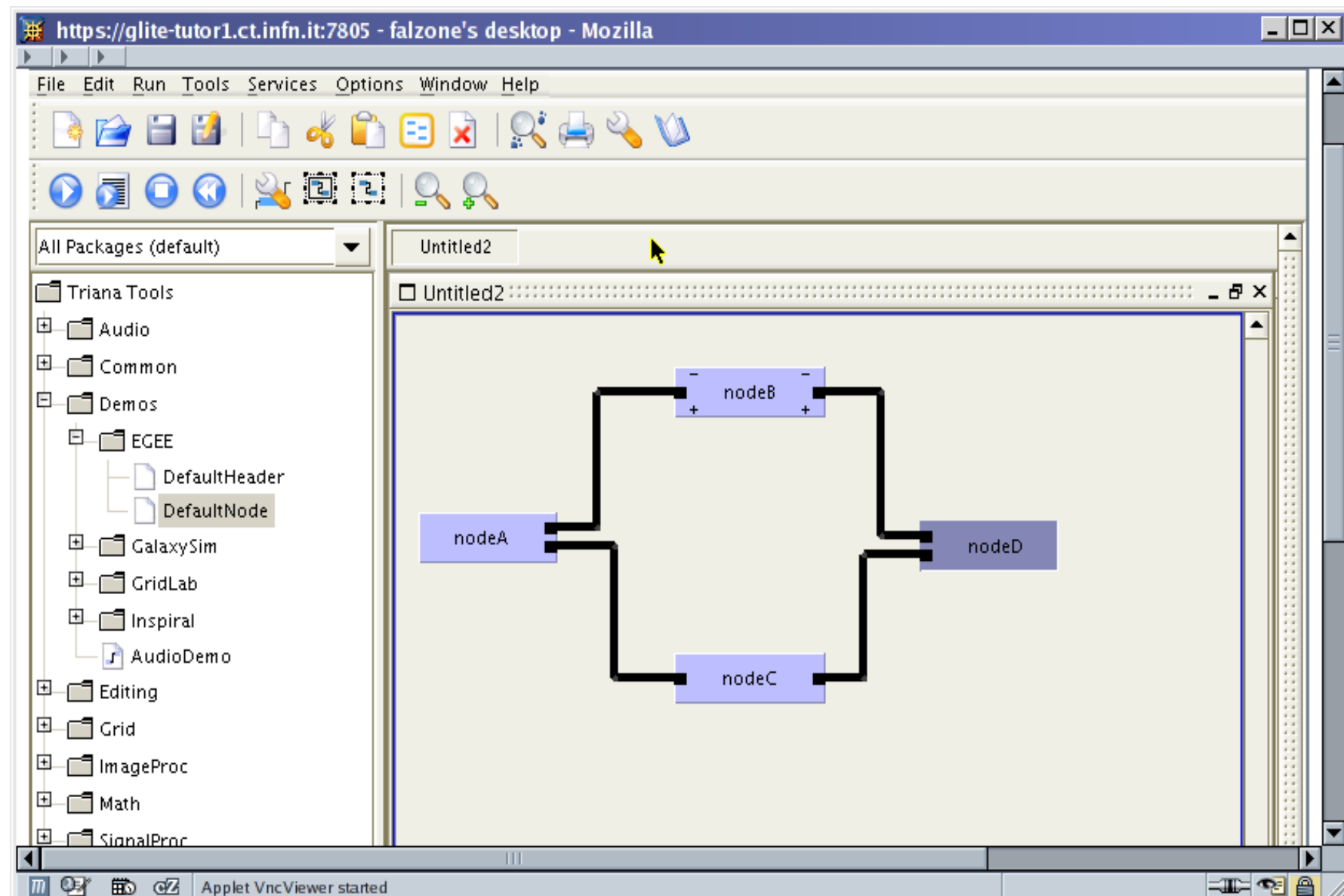
The screenshot displays the GENIUS Portal in a Mozilla browser window. The main content area shows a remote desktop session titled "https://nbaitna.ct.infn.it:7801 - falzone's desktop - Mozilla". Inside this session, a "Triana Launcher" window is open, featuring a green header, a blue banner with the text "the Triana project.", and a "Configure..." button. The desktop background is a textured green. At the bottom of the launcher window, it reads "Copyright (c) 2003 University of Wales, Cardiff. All rights reserved. loading Toolboxes".

The browser's address bar shows the URL "https://nbaitna.ct.infn.it:7801 - falzone's desktop - Mozilla". The page header includes logos for INFN, eGee (Enabling Grids for E-science), genius (Grid Enabled web eNvironment for), site Independent User job Submission, enginframe, and NICE. A navigation bar below the header contains the text "Welcome falzone" and "Resource Broker: gilda_glite Virtual Organization: gilda Catalog Type: fireman Catalog I/O: cnaf Your Data Logout".

A sidebar on the left lists "GENIUS Services" with a tree structure: File, Security, Accounting, Job (containing GUI, Job Editor, Workflow Editor, Close GUI Session, Job Submission, Job Queue, Clean Job Queues, List Available Resources), Data, Info, Monitoring, Interactive, and Preferences. The "Workflow Editor" item is highlighted.

The browser's status bar at the bottom indicates "Applet VncViewer started". A copyright notice at the very bottom of the page reads "Copyright © 1998 - 2005 Nice S.r.l. All trademarks and logos on this page are owned by NICE s.r.l. or by their respective owners."

GENIUS & TRIANA Graphic Workflow Editor



Sample Application: PATSearch

Welcome to the GENIUS Grid Portal - Mozilla

INFN Istituto Nazionale di Fisica Nucleare eGEE Enabling Grids for E-science Grid Enabled web eNvironment for **genius** site Independent User job Submission enginframe NICE

Welcome falzone Resource Broker: gilda_glite Virtual Organization: gilda Catalog Type: fireman Catalog Server: cnaf Your Data Logout

PATSEARCH Services

- PATSEARCH
 - Config Inputs Setting
 - Inspect Status
 - Clean PATSEARCH Queue
 - PATSEARCH Data Spooler
 - Back home

Config Inputs Setting

PatSearch is a flexible and fast pattern matcher able to search specific combinations of oligonucleotide consensi, secondary structure elements and position-weight matrices also allowing for mismatches/mispairing below a user fixed treshold. It is able to find, in a given sequence(s), kinds of loop structures that characterize tRNAs, rRNAs (hairpin loop, stem loop with bulges) or internal loops) and/or any kind of pattern in DNA and protein sequences.

Note (*): You have to insert an unique production name.

Please, configure the inputs setting to start the production.

Production Name: (*)

Database:

Enter a query pattern






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Done

Geneva, 2nd Tutorial for Health e-Child Project, 10-12.10.2006

Sample App: PATSearch

Welcome to the GENIUS Grid Portal - Mozilla

Grid Enabled web eNvironment for site Independent User job Submission

pattern

load it from disk

or use the default one

Complement

Overlap






Maxmatch (1..1000)

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Sample App: PATSearch

Welcome to the GENIUS Grid Portal - Mozilla

Grid Enabled web eNvironment for **genius** site Independent User job Submission

Welcome talzone Resource Broker: gilda_glite Virtual Organization: gilda Catalog Type: fireman Catalog Server: cnaf Your Data Logout

PATSEARCH Services

- PATSEARCH
 - Config Inputs Setting
 - Inspect Status
 - Clean PATSEARCH Queue
 - PATSEARCH Data Spooler
- Back home

PatSearch Multi Job Queue			
#	Production Name	Number of Events	Submission Time
1	MyTestProd01	1	Mar 7 00:22:38 CET 2006

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Sample App: PATSearch

Welcome to the GENIUS Grid Portal - Mozilla

Welcome falzone Resource Broker: gilda_glite Virtual Organization: gilda Catalog Type: fireman Catalog Server: cnaf Your Data Logout

PATSEARCH Services

- PATSEARCH
 - Config Inputs Setting
 - Inspect Status
 - Clean PATSEARCH Queue
 - PATSEARCH Data Spooler
- Back home

 Production Name : **MyTestProd01**
Number of Events : **1**
Last Submission Time : **Mar 7 00:22:38 CET 2006**

Production Status: Executed

1) <https://glite-rb.ct.infn.it:9000/ar0nM5DcX3s3826wb9293w> ==>
dgt01.ui.savba.sk:2119/jobmanager-lcgpbs-short

The Production has finished.






Job execution completed, start the data collecting now..
To inspect the outputs retrieved click on this link [MyTestProd01](#)

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Sample App: PATSearch

Welcome to the GENIUS Grid Portal - Mozilla

Grid Enabled web eNvironment for **genius** site Independent User job Submission

Welcome **falzone** Resource Broker: gilda_glite Virtual Organization: gilda Catalog Type: fireman Catalog Server: cnaf Your Data Logout

PATSEARCH Services

- PATSEARCH
 - Config Inputs Setting
 - Inspect Status
 - Clean PATSEARCH Queue
 - PATSEARCH Data Spooler
 - Back home

tmp7002.ef/falzone_patsearch_MyTestProd01_20060307002214 Mar 08, 2006 00:27:28

[Top] > falzone_patsearch_MyTestProd01_20060307002214

Toggle select falzone_ar0nM5DcX3s3826wb9293w Mar 07, 2006 00:27:30 4096

Clear select final_computation Mar 07, 2006 00:27:30 4096

Action...
Action...
Delete selected

Create .zip
Create .tar
Create .tar.Z
Create .tgz

Download selected

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Sample App: PATSearch

Welcome to the GENIUS Grid Portal - Mozilla



Grid Enabled web eNvironment for



site Independent User job Submission



```
XM_517609 : [2121,2158] : gggcagggtct gcc tggettggett cctcc agaccctccc
XM_517609 : [2121,2159] : gggcagggtct gcc tggettggett cctcca gaccctcccc
XM_517609 : [2293,2334] : aattttgceg cttccct gaacctgctc atggt ggcctttctc
XM_517609 : [2300,2334] : ccgcttccct gaacctgctc atggt ggcctttctc
XM_517609 : [2310,2344] : gaacctgctc atggt ggcctttctc gaggttggtg
XM_517609 : [2310,2353] : gaacctgctc atggt ggcctttctc gaggttggtg ggtgtcgttt
XM_517609 : [2680,2727] : agggacgcgc gccacacac ggacatgcgc ctggacac ggacacgcgc
XM_517609 : [2682,2727] : ggacgcgcgc ccagacac ggacatgcgc ctggacac ggacacgcgc
XM_517609 : [2684,2727] : acgcgcgcgc agacac ggacatgcgc ctggacac ggacacgcgc
XM_517609 : [2700,2739] : ggacatgcgc ctggacac ggacacgcgc cc agacacggac
XM_517609 : [2700,2745] : ggacatgcgc ctggacac ggacacgcgc ccagacac ggacacgcgc
XM_517609 : [2700,2747] : ggacatgcgc ctggacac ggacacgcgc ccagacacgg acacgcgcgc
XM_517609 : [2776,2816] : gagcggggcc tgcac gggcgggtct gtgggg ggccttggcc
XM_517609 : [2781,2816] : gggcctgcat gggcgggtct gtgggg ggccttggcc
XM_517609 : [2791,2833] : gggcgggtct gtgggg ggccttggcc tgatggt gggcggggcc
XM_517609 : [2791,2839] : gggcgggtct gtgggg ggccttggcc tgatggtggggcgg ggcctcggcc
XM_517609 : [2839,2791] : gggcggggcc ccgccaccatca ggccaagccc cccac agaccgcgc
XM_517609 : [2833,2791] : ggccccgcgc accatca ggccaagccc cccac agaccgcgc
XM_517609 : [2816,2781] : ggccaagccc cccac agaccgcgc atgcaggccc
XM_517609 : [2816,2776] : ggccaagccc cccac agaccgcgc atgca ggccccgctc
XM_517609 : [2747,2700] : gggcgcgtgt ccgtgtctgg gcgcgtgtcc gtgtccag gcgcgtgtcc
XM_517609 : [2745,2700] : gcgcgtgtcc gtgtctgg gcgcgtgtcc gtgtccag gcgcgtgtcc
XM_517609 : [2739,2700] : gtccgtgtct gg gcgcgtgtcc gtgtccag gcgcgtgtcc
XM_517609 : [2727,2684] : gcgcgtgtcc gtgtccag gcgcgtgtcc gtgtct gggcgcgcgt
XM_517609 : [2727,2682] : gcgcgtgtcc gtgtccag gcgcgtgtcc gtgtctgg gcgcgcgtcc
XM_517609 : [2727,2680] : gcgcgtgtcc gtgtccag gcgcgtgtcc gtgtctgggc gcgcgtccct
```

Match Total = 5000

Matched Sequences = 399

=====
Sequences = 5000
=====

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GENIUS3 web portal services for biomed GATE Application

GATE is a monte-carlo based radiotherapy planning simulator using GEANT4

- **Services existing on last GENIUS web portal**
 - **GATE simulation submission services:**
 - Create GATE files
 - Make JDL files for GATE jobs
 - Submit GATE jobs
 - Provide job status, collection and viewing of results
- **Services added on GENIUS3 web portal**
 - **GATE data management services**
 - Access and copy data (IM) on the SE
 - Provide and change LFN for files or data
 - Download or delete files/data
 - **Medical images services**
 - Medical images: Upload, Anonymize and view
 - Use medical images to define geometry for simulation

Contents

- Grid Portals technology
- EnginFrame Grid Portal/Gateway
- GENIUS Portal
- Future perspectives

A-WARE FP6 Funded Project

- Project goals
 - Simplify users'
 - life (focus on problems)
 - way of perceiving the GRID
 - Fill an existing gap
 - between middleware and portals
 - common interface to access gLite, Unicore/GS (DEISA project) and GT4 (TeraGrid project)
 - EnginFrame + A-WARE to be a completely integrated solution



An easy Way to
Access GRID
REsources

 **AIRBUS**

CINECA
Consorzio Interuniversitario

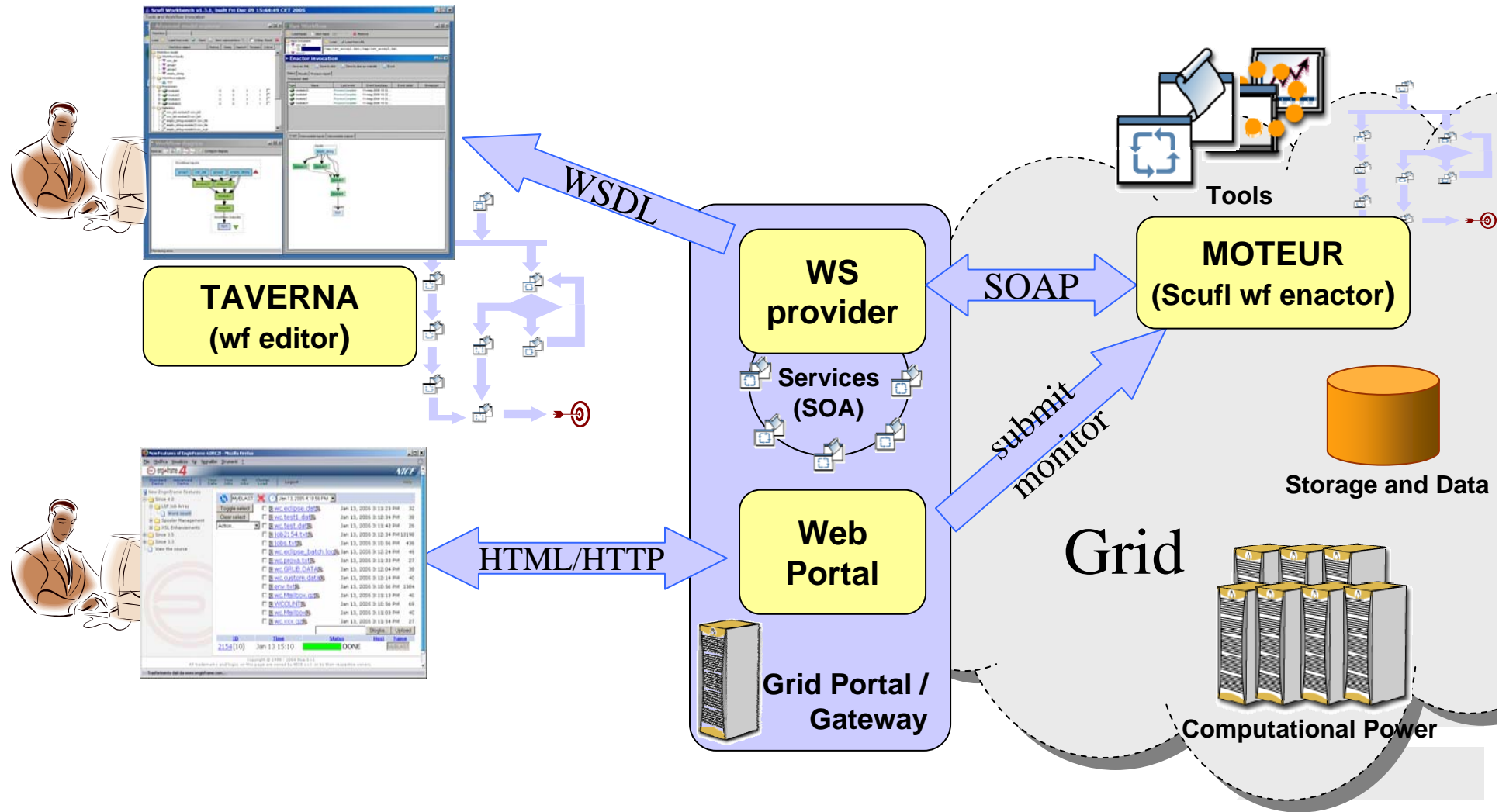
FUJITSU

NICE 



NICE 

GENIUS Grid Portal for e-Science community: a new experience for managing workflow in a SOA



Genius Portal Integration - The Genius Portlet

- Genius will seamlessly export its services as portlets.
- Genius as a *Portlet builder* technology.
- Genius Portlet will be standard JSR 168 compliant
- The Genius Portlet Module must be plugged into the JSR 168 compliant Portlet container.

References

- EnginFrame Framework <http://www.enginframe.com>
- GENIUS Portal <https://genius.ct.infn.it> (Reference main site)
- GENIUS Repository at <https://geniuscvvs.ct.infn.it>
- GENIUS based on gLite at <https://glite-tutor.ct.infn.it>
- Coordinator alberto.falzone@nice-italy.com

GENIUS Installation

- GENIUS Repository at <https://geniuscvvs.ct.infn.it>
- Write an email message to alberto.falzone@nice-italy.com for an account request to download the GENIUS package





Grid Enabled web eNvironment for



site Independent User job Submission



- GENIUS Services
 - File
 - Security
 - MyProxy
 - VOMS Exts
 - Info on proxy
 - Change OS Password
 - Remove proxy & Logout
 - Job
 - Data
 - Info
 - Monitoring
 - Interactive
 - Preferences
 - VO Services

Welcome to GENIUS Portal



ver. 3.0

compliant with [gLite-1](#) and [LCG-2](#) middlewares

[Credits](#)

This portal is best viewed with Mozilla 1.7.12 or higher.
Netscape (4.79, 4.80, 6 or higher) and Internet Explorer (5 or higher) can also be used.
The use of any other web browsers could induce some visualization mismatches and is not currently suggested.
powered by



**Now, access to GENIUS
portal and have fun ! 😊**

Thanks for your attention!

Q&A

