

UCoMS Portal Demo

P. Chakraborty, J. Lewis, C. Zhang

Center for Computation & Technology
Louisiana State University
May 31, 2006



AT LOUISIANA STATE UNIVERSITY

The logo for the Center for Computation & Technology (CCT) at Louisiana State University. It consists of a 3x3 grid of squares in green, orange, and purple, followed by the lowercase letters 'cct' in a bold, purple, sans-serif font.

cct Outline

- Progress
 - Portal login
 - Adding resource
 - Credential verification
 - Job submission (basic commands)
 - User input portlet
- Plans



Progress – portal

- ✓ The basic portal design chalked out.
- ✓ Retrieval of proxy credential from MyProxy Server done successfully.
- ✓ Job submission works for basic commands.
- ✓ Input parameter portlet is currently being designed. Goal is to make it as user-friendly as possible.

ccat Portal login

Firefox File Edit View Go Bookmarks Tools Window Help

Ubiquitous Computing and Monitoring System (UCoMS)

English

UCoMS About

Home

Grid resources

SuperMike (1024 Processor, 2 GB/proc, Myrinet, 4 TFLOPS)

Helix (256 Proc, 460 GigaFlops)

UCoMS Grid

MacOS X Cluster 154 GigaFlops

Opws10

ULL, CarGrid, CarBC

PE LSU Peteng

SURAGrid ULL, GSU, TACC, TAMU, UNC, UKY, UVA, TTU...

10 Gig Network

Panasas Parallel File System 32TB

Santaka (32 Proc, SGI Prism, 128 GB)

GridHUB RLS, MDS, GRMS, iGrid

Portal Resources

Condor Pool

IS - Storage Server 6TB

LONI Grid 560 Procs, 16GB/Node RAM, 4.2TeraFlops

Archive 7TB + 7TB (SRB)

Gumbo Grid

Certificate Server

Login

User Name

Password

Remember my login

Login

[Forget your password?](#)

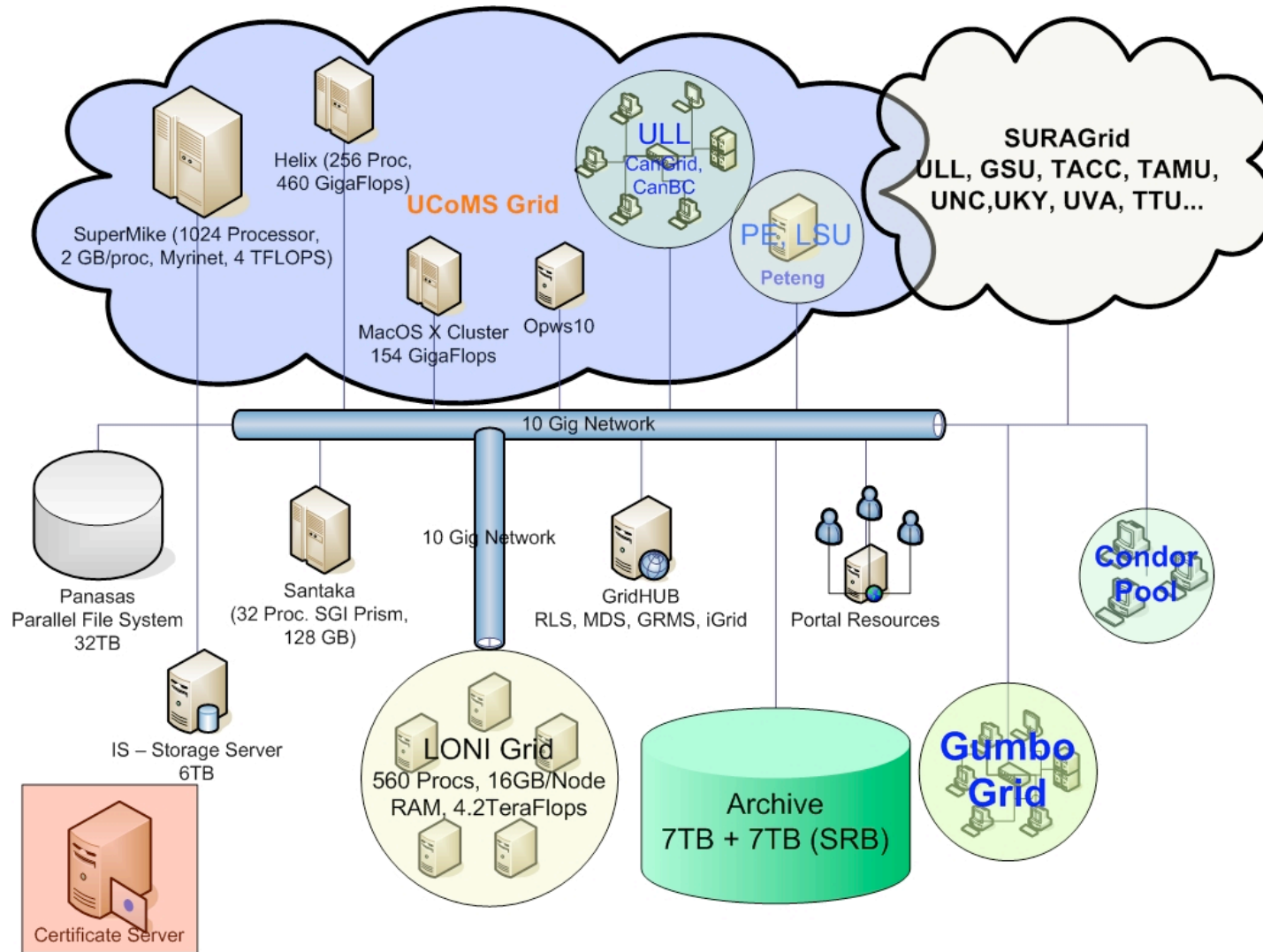
powered by gridsphere

Find: Find Next Find Previous Highlight all Match case

Done



CCT Portal - resource





CCT Portal - resource

The screenshot shows a Firefox browser window displaying the UCoMS Portal. The browser's address bar shows the URL 'Ubiquitous Computing and Monitoring System (UCoMS)'. The page title is 'UCoMS Portal'. The user is logged in as 'Promita Chakraborty'. The main navigation menu includes 'Welcome', 'Administration', 'Grid', 'Help', and 'Input'. Below this, there are links for 'Registry', 'Credentials', 'Resources', 'Files', and 'Jobs'. The 'Resource Browser Portlet' is active, showing a 'Hardware List' table with the following data:

Resource	Hostname	Description
Portal	localhost	Hosts the GridSphere Portlet Container
CCT MyProxy	myproxy.cct.lsu.edu	Hosts the CCT MyProxy server
Gridhub	gridhub.cct.lsu.edu	CCT Gridhub

Below the table, the date 'May 30, 2006' is displayed. The browser's search bar at the bottom shows 'Find: Done'.



CCT Portal - credential verification

The screenshot shows a Firefox browser window displaying the UCoMS Portal. The browser title is "Ubiquitous Computing and Monitoring System (UCoMS)". The page header includes the UCoMS logo and the text "UCoMS Portal". A "Logout" link is visible with the message "Welcome, Promita Chakraborty". Below the header is a navigation menu with tabs for "Welcome", "Administration", "Grid", "Help", and "Input". A secondary menu includes "Registry", "Credentials", "Resources", "Files", and "Jobs". The main content area is titled "Credential Manager Portlet" and contains two buttons: "List Credentials" and "New Credential". Below these buttons, a message states: "The following credentials can be retrieved from myproxy.cct.lsu.edu." A table lists a credential for "promita" with the following details:

Credential	Certificate	Status	Time left	
promita	/O=Louisiana State University/OU=CCT/OU=ca.cct.lsu.edu/OU=cct.lsu.edu/CN=Promita Chakraborty	Active	2 hours 14 minutes 59 seconds	Deactivate

Below the table, there is a "Passphrase:" field with a masked input (*****), a "Retrieve Credentials" button, and a "Done" button at the bottom of the portlet.

May 30, 2006

Find: Find Next Find Previous Highlight all Match case



CCT Portal - job submission

The screenshot shows a Firefox browser window displaying the UCoMS Portal. The browser title is "Ubiquitous Computing and Monitoring System (UCoMS)". The page header includes a "Logout" link and a welcome message for "Promita Chakraborty". The navigation menu includes "Welcome", "Administration", "Grid", "Help", and "Input". Below the menu, there are links for "Registry", "Credentials", "Resources", "Files", and "Jobs".

The main content area is titled "Job Submission Portlet" and contains a file chooser dialog. The dialog has "OK" and "Cancel" buttons at the top. Below the buttons, there is a text instruction: "Use the file chooser dialog to browse remote file systems for the **executable**. The file you choose will be staged to the computer used to run this application."

The "File Chooser" dialog has a left pane with a list of resources: "<Select Resource>", "CCT MyProxy", "Gridhub", and "Portal". The "Gridhub" resource is selected. To the right of the list are three sections: "Directory" (set to "/bin"), "Contents" (a list of files including "chown", "cp", "cpio", "csh -> tcsh", "cut", "date", "dd", "df", "dmesg", and "dnsdomainname -> hostname"), and "Path" (set to "/bin"). The "date" file is highlighted in the contents list. At the bottom of the dialog are "Make Dir" and "Upload File" buttons.

Below the dialog, the date "May 30, 2006" is displayed. At the bottom of the browser window, there is a search bar with the text "Find:" and a search icon, and a status bar that says "Done".

Submitting /bin/date to gridhub



CCT Portal - job submission

Firefox File Edit View Go Bookmarks Tools Window Help (100%) Tue 10:00 PM

Ubiquitous Computing and Monitoring System (UCoMS)

UCoMS Portal [Logout](#)
Welcome, Promita Chakraborty

Welcome Administration **Grid** Help Input

Registry Credentials Resources Files **Jobs**

Job Submission Portlet

<<Previous Next>> Cancel

Step 1. Specify the application you would like to execute.

Application Details

Description

Executable [Browse](#)

Type of executable

Directory [Browse](#)

Stdout [Browse](#)

Stderr [Browse](#)

Arguments

Environment

Stage-In Files

Find: Find Next Find Previous Highlight all Match case

Done



CCT Portal - job submission

The screenshot shows a Firefox browser window displaying the UCoMS Portal. The page title is "Ubiquitous Computing and Monitoring System (UCoMS)". The user is logged in as Promita Chakraborty. The "Job Submission Portlet" is active, showing a confirmation step for job submission. The job specification details are as follows:

Description	testingjob
Directory	
Executable	file://gridhub.cct.lsu.edu//bin/date?filesize=38588
Method	single
Arguments	
Environment	
Stdout	<Portal>
Stderr	<Portal>
Stage-In Files	
Stage-Out Files	
Job Resource	gridhub.cct.lsu.edu
Job Scheduler	fork
Job Queue	default
Minimum CPUs	
Minimum Memory	

May 30, 2006

Job submission using GRAM service



Portal - job submission

Firefox File Edit View Go Bookmarks Tools Window Help Tue 10:03 PM

Ubiquitous Computing and Monitoring System (UCoMS)

UCoMS Portal Logout
Welcome, Promita Chakraborty

Welcome Administration **Grid** Help Input

Registry Credentials Resources Files Jobs

Job Submission Portlet

<<List Jobs Refresh View New Job Copy Job Stop Job Delete Job

Generic Application

Job Id	https://gridhub.cct.lsu.edu:7001/4418/1149044517/	Job Resource	gridhub.cct.lsu.edu	Date Submitted	Tuesday, May 30, 2006 10:01:57 PM CDT
Job Description	testingjob	Job Scheduler	fork	Last Changed	Tuesday, May 30, 2006 10:01:58 PM CDT
Job Status	Job completed with message success	Job Queue	default	Date Ended	Tuesday, May 30, 2006 10:01:58 PM CDT

Job Spec **Job String** **Job Output** **Job Location**

Tue May 30 22:01:57 CDT 2006

May 30, 2006

Find: Find Next Find Previous Highlight all Match case

Done

Job output



Portal - User Interface

Firefox File Edit View Go Bookmarks Tools Window Help Tue 10:03 PM

Ubiquitous Computing and Monitoring System (UCoMS)

UCoMS Portal [Logout](#)
Welcome, Promita Chakraborty

Welcome Administration Grid Help **Input**

User Input for Job submission

Input Portlet

Job Details

Job Name:
Job Description:

Stochastic Algorithm Realization

Model Size

Nx: Ny: Nz: Total:
Dx: Dy: Dz:
X0: Y0: Z0:

Desired Geostat Algorithms

Check All
 LUSIM
 SGSIM
 SPECSIM
 Hybrid

Number of replicates:

Factors

Factor	Symbol	Levels	Lowerbound	Upperbound
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

Details of Wells

Number of Wells:

Find: Find Next Find Previous Highlight all Match case

Done

User Input Interface

 **cct** Plans

- Finish the demo version of the UCoMS portal.
- Understand well the user requirement and try to design a user-friendly portal accordingly.
- Make the portal as dynamic as possible.
- Connect it to the Middleware.



Thank you!

Questions/Suggestions?