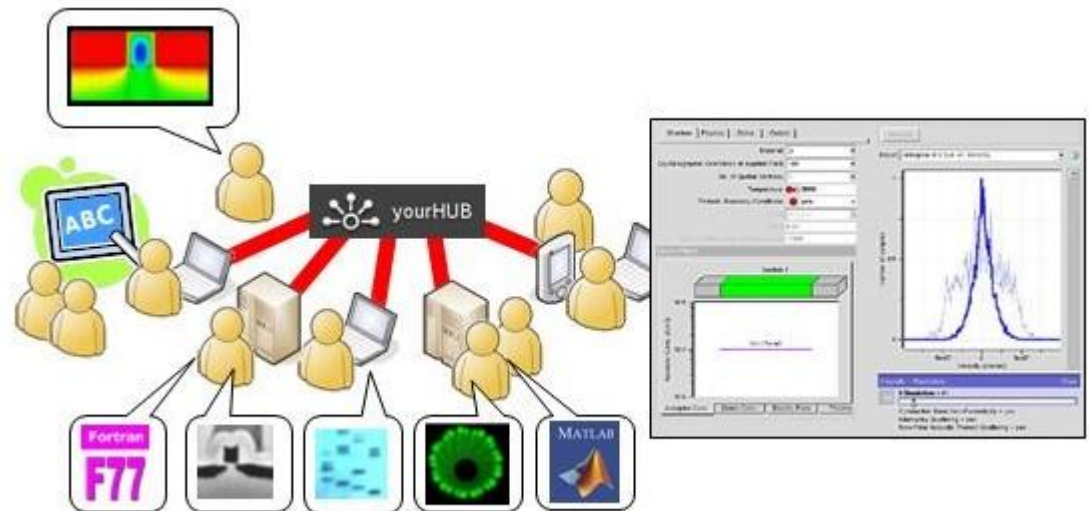


HUBzero overview. Deployment status.

Kazarina Yuliya (API ISU)

KRAD/APPDS kick-off meeting, 6.03.2018

hubzero



HUBzero:

- * What is it?
- * Infrastructure
- * Field of application
- * Deployment status

HUBzero is an open-source software platform for building powerful Websites that support scientific discovery, learning, and collaboration. The HUBzero software allows individuals to access simulation tools and share information.

HUBzero was created to support nanoHUB.org, an online community for the Network for Computational Nanotechnology

HUBzero built from open-source software:

- * Linux operating system
- * Apache web server
- * MySQL database
- * Joomla content management system
- * PHP web scripting language



Sites using the hub infrastructure are standardized with the following modules:

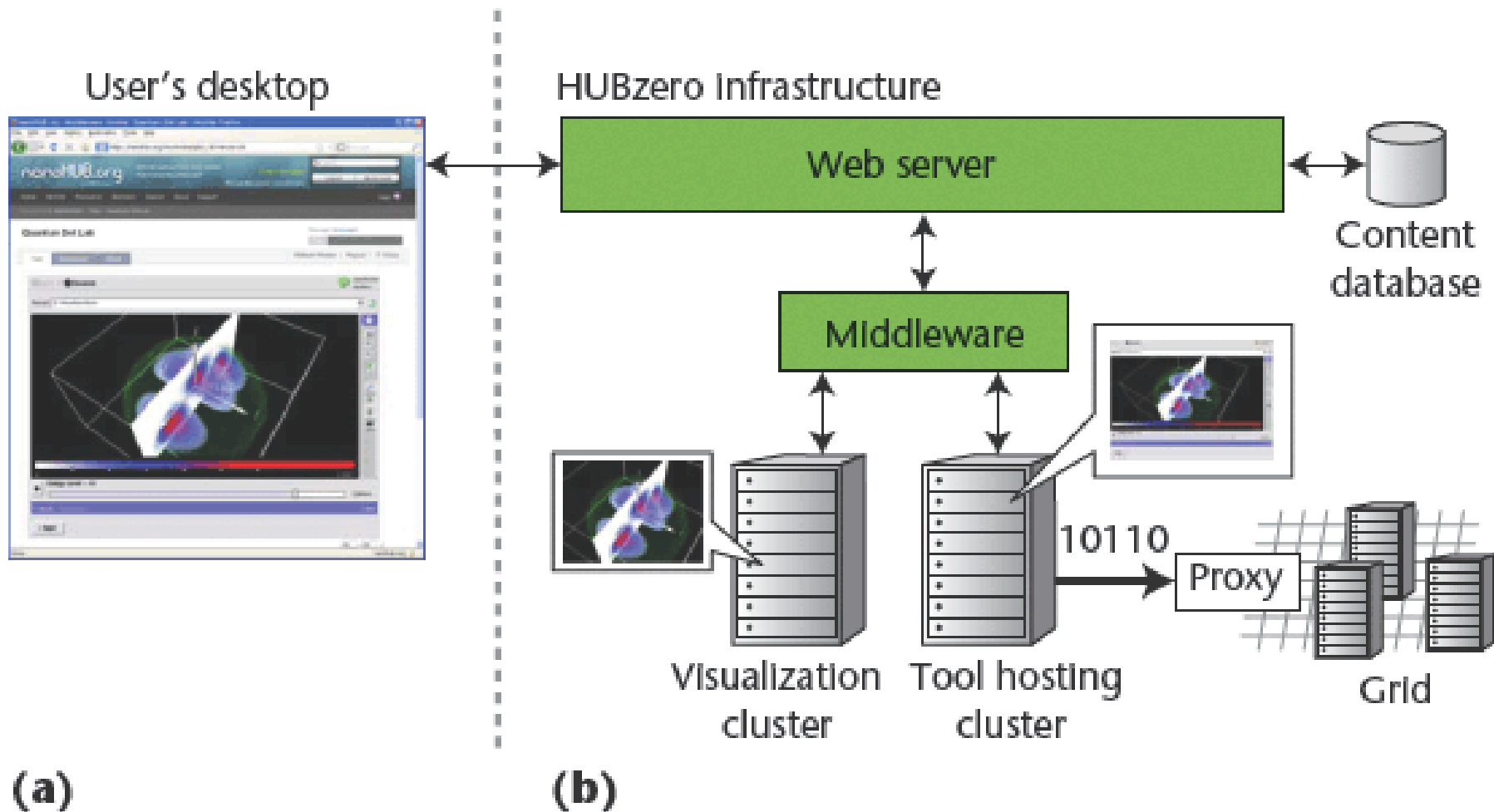
- * Interactive simulation tools, hosted on the hub cluster and delivered to web browsers
- * Simulation tool development area, including source code control and bug tracking
- * Space for teams to collaborate and build communities through Groups and Projects
- * Video seminars and animated presentations connected to an online course feature
- * Mechanism for uploading and sharing resources
- * Built-in user support features
- * Statistics about users and usage patterns
- * Integrations with Google Drive, GitHub, and Dropbox

Since 2007, HUBzero use has expanded to support a growing number of hubs (> 60), for example:

- * pharmaceutical engineering (pharmaHUB.org)
- * heat transfer (thermalHUB.org)
- * microelectromechanical systems (memsHUB.org)
- * healthcare (IndianaCTSI.org)
- * cancer care (cceHUB.org)
- * engineering education (globalHUB.org).

~2 M annual visitors

24x7 production environment available worldwide



[M. McLennan, R. Kennell, "HUBzero: A Platform for Dissemination and Collaboration in Computational Science and Engineering," Computing in Science and Engineering, 12(2), pp. 48-52, March/April, 2010]

Virtual Machine from Matrosov Institute for System Dynamics and Control Theory on the basis VMware

Deployment is in progress (configuration soft only remained)
Our version of HUBzero will available soon,
Preliminary date of deployment finish: 13 March

HUBzero installation on the private laptop was successful

The main page

example

DISCOVER COMMUNITY ABOUT SUPPORT



Welcome to our site!

This project has an **important mission** of revolutionizing scientific research and educational activities.



FEATURED RESOURCE

workspace : workspace



COMMUNITY POLL
WHO ARE YOU?

- Graduate student
- Undergraduate student
- High school or elementary student
- College faculty
- Professional scientist/engineer
- Retired, but still curious

[Vote](#) [Results...](#)



FEATURED TOOL

workspace : workspace



Welcome to our community for scientific and

Dima's page as a user

example


DISCOVER COMMUNITY ABOUT SUPPORT

Dmitry Shipilov

Private Profile :: Your profile is currently private.



Add Modules



Dashboard

Profile

Account

Blog

Collections 1

Contributions

Courses

Groups

Messages

Dashboard Introduction [Close]

Welcome to your customizable dashboard page!

To get started, click the "Personalize" button towards the top of this page. You will then be presented with a list of modules you may add to your page. You may also, at that time, remove any unwanted modules or rearrange the current modules by drag-and-drop!

My Points [Settings] [Close]

All My Transactions

0 points

My Groups [Settings] [Close]

Recent All

You are not a member of any groups at this time.

+ New Group

My Projects [Settings] [Close]

All Projects + New Project

You have no projects at this time.

My Sessions [Settings] [Close]

Workspace [Dropdown]

LAST ACCESSED:
March 05, 2018 @ 2:21am

Open Terminate

Workspace (2:27 am) [Chevron]

Storage (manage)

My Tools [Close]

Recent Favorites All Tools

Workspace [Close]

These are your most recently used tools.

Admin page

Site
Users
Menus
Content
Components
Extensions
Help
⏻

CONTROL PANEL ?

SUPPORT TICKETS

0 Open 0 Unassigned 0 New

WHO'S ONLINE

SITE	ADMINISTRATOR
1	1

USER	LOCATION	LAST ACTIVITY	LOGOUT
CMS Manager [admin]	Administrator	0.0 hours ago	🔒
Dmitry Shipilov [shipilov]	Site	0.1 hours ago	🔒

< View all >

RESOURCES

1

Published	1
Pending	0
Draft	0
Unpublished	0
Removed	0

MEMBERS

4

Confirmed

0

Unconfirmed

1

~24 hours

QUESTIONS & ANSWERS

0

0

Example of tool

example

DISCOVER COMMUNITY ABOUT SUPPORT

The screenshot displays a cloud workspace interface. At the top, the workspace is titled "Workspace (3:52 am)" and includes control buttons for "Terminate" and "Keep for later". The main area contains a terminal window titled "Color xterm" with the prompt "shipilov@localhost:~\$". The bottom of the interface features a taskbar with a "HUB" logo, window tabs for "#1", "#2", "#3", and "xterm", a system clock showing "3:53 Mar 05", and a storage indicator for "0% of 0GB".

The goal in the frame of our project is:

to deploy the HubZero platform for filling it with educational materials for the preparation of students and graduate students in the field of particle astrophysics (educational courses, documentation and exercises on MC simulation, examples of data analysis,...)

What else?

- * collaboration tools (Simulation software, Data processing software)
- * collaborative work in astroparticle physics (experience exchange, joint work, chats, blogs, question-answer system, internal wiki)
- * data collection

Advantages of setup:

- * Everything is customized for the needs of the collaboration
- * It is possible to expand the functionality