Installation (RedHat)

What is HUBzero?

HUBzero is a platform used to create dynamic web sites for scientific research and educational activities. With HUBzero, you can easily publish your research software and related educational materials on the web. Powerful middleware serves up interactive simulation and modeling tools via your web browser. These tools can connect you with rendering farms and powerful Grid computing resources.

Minimum System Requirements

HUBzero (RedHat) installations require one or more dedicated hosts running RedHat or CentOS version 6.

A typical starter HUBzero installation might consist of a single physical server with dual 64-bit quad-core CPUs, 24 Gigabytes of RAM and a terabyte of disk.

Production systems should try to not limit hardware resources, HUBzero is designed to run on systems with many CPU cores and lots of RAM. If you are looking for a system to run a small site with limited physical or virtual resources this is probably not the system for you. However, for demonstration or development purposes we often create VM images with less than a gigabyte of RAM and 5 gigabytes of disk. While fully functional, these virtual machines would only be suitable for a single user doing development or testing.

Target Audience

This document and the installation and maintenance of a HUBzero system has a target audience of **experienced** Linux administrators (preferably experienced with RedHat or CentOS distributions).

Package List

The following packages (subject to change): are available from the HUBzero repository for this release. Not all are necessarily used for any given installation.

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Package Name	Purpose
hubzero-app	Command line tool to manage installation/publishing of HUBzero apps
hubzero-app-workspace	HUBzero App providing a lightweigth Linux desktop, for app/tool development
hubzero-chuse	HUBzero graphical front end to the user environment manager 'use'
hubzero-cli	HUBzero command line interface tools
hubzero-cms-2.0.0	The HUBzero Content Management System
hubzero-expire-sessions	Expires unused app/tool sessions
hubzero-filexfer	Transfer files between App Sessions and user's desktop
hubzero-filexfer-xlate	Support daemon for the filexfer program
hubzero-firewall	HUBzero firewall that protects app/tool sessions
hubzero-forge	Creates project areas for tool development
hubzero-icewm	Linux ICE window manager configuration, used in workspaces
hubzero-icewm-captive	Linux ICE window manager specially crafted to support tools in a sessions
hubzero-icewm-themes	The HUBzero Linux ICE window manager theme, used in workspaces
hubzero-invokeapp	HUBzero application invoke script
hubzero-mailgateway	HUBzero mail gateway
hubzero-metrics	HUBzero metrics support package
hubzero-mw-client	HUBzero middleware - client
hubzero-mw-service	HUBzero middleware - execution host session manager
hubzero-mw-session	HUBzero middleware - per session tools
hubzero-mysql	MySQL configuration package for HUBzero
hubzero-openldap	OpenLDAP configuration package for HUBzero
hubzero-openvz	OpenVZ configuration package for HUBzero
hubzero-policyrcd	HUBzero policy-rc.d for invoke-rc.d
hubzero-python	HUBzero python API module
hubzero-rappture	The Rapid APPlication infrastrucTURE toolkit for building scientific tools
hubzero-rappture-session	Session support packages for Rappture
hubzero-ratpoison-captive	Linux window manager, used in app/tool sessions
hubzero-submit-client	HUBzero submit client
hubzero-submit-common	HUBzero submit common python library
hubzero-submit-condor	HUBzero condor build for hubzero-submit
hubzero-submit-distributor	HUBzero middleware submit distributor
hubzero-submit-monitors	HUBzero middleware submit monitors
hubzero-submit-pegasus	HUBzero pegasus build for hubzero-submit
hubzero-submit-server	HUBzero job submission server
hubzero-subversion	HUBzero Subversion support package

hubzero-telequotad	Disk quota monitor
hubzero-textifier	HUBzero textifier
hubzero-texvc	Helper utility to generate math fomulas for wiki markup
hubzero-tigervnc-server	X/VNC server for remote display of HUBzero tool sessions
hubzero-trac	HUBzero Trac support package
hubzero-trac-mysqlauthz	Plug-in for MySQL user auth in project development areas
hubzero-twm-captive	Linux TWM window manager, used in app/tool sessions
hubzero-use	Command for configuring the environment within a workspace
hubzero-use-apps	HUBzero apps environment for 'use'
hubzero-usermap	File permission mapping FUSE filesystem used by WebDAV
hubzero-vncproxy	HUBzero VNC proxy helper
hubzero-webdav	HUBzero WebDAV support package
libapache2-vncproxy	HUBzero vncproxy module for apache2-mpm-prefork
php5-oauth	OAuth PECL Library for PHP 5
php5-stem	Stemming PECL Library for PHP5
tightvnc-java	Modified VNC Client that receives app/tool sessions within a web browser