BOINC Server

How to make one

Version 1.1 - Ultrareduct

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The server: installation from preconfigured image

If your linux distribution is Debian, there is a specific guide up to version 8 (here), while for the preconfigured Boinc disk image the steps are as follows.

1) Download the image from the site of Boinc, https://boinc.berkeley.edu/trac/wiki/VmServer

2) The file is in .vdi format, the default disk file of the program virtualization Oracle VirtualBox.

3) Start the virtual machine and log in with the 'root' account (pwd: 'rootpw'). With this account proceed to update the system with commands
apt-get update, apt-get upgrade is apt-get dist-upgrade
(optional). - DO NOT upgrade to Debian version 9 . It is advisable to install an ftp service for any download / upload of files on the server.

4) Assign a static IP to the server and configure the network appropriately,
editing the file / *etc / network / interfaces.*

5) Once the updates are complete, reboot and log in with the 'boincadm' user (pwd: 'boincadmpw'). The 'boincadm' account will be the account under which all necessary operations on the server will be conducted.

6) Update, the Boinc server software to the latest version (**recommended):**
$ ~ / update_master.sh

7) Start the creation of the Boinc server, with the related services:
$ ~ / configure_server.sh
$ ~ / make_server.sh

8) At this point the server is ready to host a Boinc project. The command to create it is
$ ~ / make_project.sh

The server will now also be reachable from the default web interface open to the public and the name of the project will be the one predefined by the server, that is "test4vm"

(to change the name of the project or other parameters, just edit the file *config.xml.* Changing the ip address must also be done manually in the file / *home / boincadm / projects / test4vm / config.xml,* in the following way:

<upload_url> http: // ipaddress / test4vm_cgi / file_upload_handler </upload_url> <download_url> http: // ip address / test4vm / download </download_url>

<master_url> http: // ip address / test4vm / </master_url>.

9) You can access the web administrative interface of the project through the url *http: // ipaddress / test4vm_ops.* This administrative interface is protected from unauthorized access. To give access permissions you need to create, in the folder / *projects / test4vm / html / ops* an .htpasswd file with the following command

htpasswd -c .htpasswd **username** (it is preferable to use the boincadm user, to give consistency to everything).

10) Inside the folder *projects / test4vm /* there are two folders important: **download** is **upload,** used to send and receive files.

11) Inside the folder / *html / ops /* there are also a whole series of php scripts useful for server administration.

12) The server already has an example application on board, present in the folder */ projects / projectname / apps / example_app /*

13) It is necessary to load the application into the project from the folder */ projects / projectname* with the command ./ bin / xadd.

14) You need to activate the Apache “mod_cgi” component with the command I sweat a2enmod cgi

15) The command to queue the job will be ./ bin / update_versions (to use even when it is necessary to update the application).

16) To start the server daemons, you will need to run the command . / bin / start

Installation from Docker Server

The simplest method is to download the iso from the site of the chosen distribution (Ubuntu Server, in our example) and create a virtual machine with Virtualbox.

1) Once the installation is complete (leaving only the base packages), connected the virtual machine to the internet, create the root user.

2) Update the system with commands sudo apt-get update is sudo apt-get upgrade and restart.

3) Remove old versions of Docker (if any) with the command sudo apt-get remove docker docker-engine docker.io

4) Install (or update) the packages apt-transport-https, curl, ca-

certificates is software-properties-common

5) Install the official Docker GPG key Curl -fsSL
https://dowload.docker.com/linux/ubuntu/gpg | sudo apt-
key add -

6) Add the Docker repository
sudo apt-get-repository "deb [arch = amd64]
https://download.docker.com/linux/ubuntu $ (lsb_release -
cs) stable "

7) Install the latest Docker Compose (currently 1.24) with the
command sudo curl -L
https://github.com/docker/compose/releases/download/1.21. 2 / docker-compose - $ (uname -s) -
$ (uname -m) -o
/ usr / local / bin / docker-compose

8) Give the correct permissions to the tracks with sudo chmod + x
/ usr / local / bin / docker-compose

9) Check that the version is correct with the command docker-compose
version

10) Install Docker with the command apt-get install docker-ce

11) Download the git package with the command git clone https: // -
github.com/marius311/boinc-server-docker.git

12) Enter the boinc-server-docker folder and run the commands:
docker-compose pull
docker-compose up -d

13) At this point the server will begin to download the necessary components, it will be installed and running and it will be sufficient to access it with the established ip address.

Thanks to all the Boinc Italy community and A BIG thank you

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