

Enterprise Linux 8 & UGCC Install Guide

Brainless Technologies Ltd.

www.brainless.us

This guide was written based on a RHEL 8.0 Desktop install and mono 5.20.1.19. The procedure should be very similar for other editions of Enterprise Linux.

We are installing everything into `/ugcc`; you may replace that path with whatever you'll be using. We'll also be setting up the panel to use a SQLite Database. If you'll be using MySQL we'll make notes in the guide when things will need to be done differently for MySQL. Also keep in mind that the user the panel runs as will need `rwX` permissions to your game server install paths. You can use `/ugcc/server` for your servers.

Remember you may have to disable `firewalld` or add rules to allow incoming traffic.

Commands to type are in italics.

Links

Documentation: <https://www.brainless.us/forum/viewtopic.php?f=20&t=80>

Support: <http://www.brainless.us/contact.aspx>

Customer Portal: <http://www.brainless.us/customers/>

Purchase Licenses: <http://www.brainless.us/products.aspx>

Install 7zip

There are a couple of options for setting up 7z. You can get it from EPEL, or download and build it yourself.

To use EPEL visit <http://fedoraproject.org/wiki/EPEL> for instructions for setting it up. CentOS users can simply run `dnf install epel-release`. To install p7zip run `dnf update` followed by `dnf install p7zip p7zip-plugins`. At the time of creation of this guide EPEL was not available for RHEL 8.0.

If you opt to build it yourself you can get the source at <https://sourceforge.net/projects/p7zip/>. Review the README file in the archive for build and install directions.

Get Started!

Let's get started with some necessary packages. We'll install nano for editing files due to it being easier for new users. If you have a different editor you prefer, you can omit nano.

- `dnf install nano dnf-utils net-tools`
- `ln -s /sbin/ifconfig /bin/ifconfig`
- Disable selinux as it causes issues with apache, game servers, and the panel. If you don't want to disable SELINUX you can create your own SELINUX modules, but this is outside the scope of this guide.
 - `nano /etc/selinux/config`
 - Change "SELINUX=enforcing" to either "SELINUX=disabled" or "SELINUX=permissive". Ctrl+X, press y, press enter to save.
 - **Reboot.**

- If you plan to run 32-bit applications on an x64 install, you need to install the 32-bit compatibility libraries (steamcmd and most servers are 32 bit):
 - `dnf install glibc.i686 libstdc++.i686`

Setup Mono

- Visit <https://www.mono-project.com/download/stable/#download-lin-centos> and follow the instructions for installing mono repositories. Then run the following:
- `dnf update`
- `dnf install mono-complete xsp`

Install Panel

- `mkdir -p /ugcc/www`
- `cd /ugcc`
- `mkdir mon logs deploy servers`
- `cd /ugcc/deploy`
- `curl http://redirect.brainless.us/ugcc/<version>/Deploy.7z -o Deploy.7z` (replace <version> with the latest version number of UGCC, ie 2.14)
- `7za x Deploy.7z`
- `cd Deploy/WWWPanel-Linux-Mono4`
- `cp -r * /ugcc/www`
- `cd ../Monitor/Linux-Mono4`
- `cp -r * /ugcc/mon`
- `cd ../../DB`

Here we'll be copying the `ugcc.db3` file to the logs folder, but if you're using MySQL, use the `ugcc.sql` file here to import into your MySQL server.

- `cp ugcc.db3 /ugcc/logs`
- `cd ../Configs/Linux-Mono4`
- `cp Web.config /ugcc/www`
- `cp ugccmon.cfg /ugcc/mon`
- `cd /ugcc/www`

We should be done copying files; now it's time to edit configuration files.

Note: If you've followed the guide and placed the panel in `/ugcc/www`, the monitor in `/ugcc/mon` and the database in `/ugcc/logs`; you won't need to edit the config files, unless you are using MySQL.

The configuration file for the web panel uses settings similar to “<add key=’log’ value=’/ugcc/logs’ />”. To change the setting edit the value in the quotes after value=.

- *nano Web.config*
 - Set the log setting to /ugcc/logs
 - Set the dbtype setting to sqlite (or mysql if using mysql also set the sqlsrvr, user, password, and dbname settings)
 - Set the sqlitelocation to /ugcc/logs
 - Save and close (CTRL+X,Y).
- *firewall-cmd --add-port=9000/tcp --permanent*
- *firewall-cmd --reload*
- *xsp4*
 - You should see some output, open a browser and browse to http://ip:port/Check.aspx (usually port 9000).
 - If all the values are true, you may proceed to logging in
 - Go to the login screen and login with user: admin and password: admin.
 - Now would be a good time to change the default admin password.
 - Press enter to exit out of xsp4.

We are done with the web panel for now. Configuring the panel with apache is discussed later.

Monitor Setup (Requires a license to run)

- *cd /ugcc/mon*
- *nano ugccmon.cfg*
 - Set the **[DBEngine]** setting to sqlite (or mysql if using mysql)
 - Set the **[DBConfig]** setting to Data Source=/ugcc/logs/ugcc.db3 (or use the example MySQL string and customize it to your settings)
 - Set the **[LogConfig]** and **[License]** settings to /ugcc/logs.
 - You can customize the rest of the settings to your liking. Pay attention to the notes of each setting. Save and close.
- Make the start/stop scripts executable
 - *chmod +x st*.sh*
- To start the monitor type
 - *./start.sh*

- View the output of the monitor's log file to see what it says—probably a license error, if any other type of error; please correct it before moving on. To stop the monitor in case you have a license, simply run `./stop.sh`
 - `tail -f /ugcc/logs/ugccmon.log`

Setup Monitor with remote mode

If you have a license (or plan to purchase one), you may want to setup your monitor to work in remote mode. Since the monitor and web panel will more than likely run as two different users permissions can become troublesome to manage/troubleshoot. Enabling remote mode will allow all game server processes to be started and stopped by the monitor.

To enable remote mode, please see <http://brainless.us/forum/viewtopic.php?f=21&t=137>. Once setup, change the server definition of your existing and future game servers to this definition in the server's management page on the general tab and update the permissions of your game install directories.

Setup Monitor as a service (recommended)

We'll setup the monitor to start on boot and to restart if it crashes.

You may need to edit the paths of the ExecStart line, making sure the `-d:` setting is the path to where the monitor was installed. If you've followed this guide you shouldn't have to edit the paths.

- `cp /ugcc/deploy/Deploy/Tools/Linux/Systemd/CentOS7/ugccmon.service /usr/lib/systemd/system`
- `cd /usr/lib/systemd/system`
- `chmod +x ugccmon.service`
- `systemctl daemon-reload`
- `systemctl enable ugccmon`

You can test that it works by starting it then checking the status:

- `systemctl start ugccmon`
- `systemctl status ugccmon`

Now you can control the monitor service with the systemd service commands: `systemctl start ugccmon` and `systemctl stop ugccmon`

Setup Apache with mono auto hosting

If you're content with using xsp you don't have to worry about the rest, but it's worthwhile to get the panel running under apache.

- `dnf install httpd apache2-mod_mono`

Enable apache to start on boot.

- `systemctl enable httpd`

Add a port to the firewall for apache if you haven't disabled it.

- `firewall-cmd --add-port=80/tcp --permanent`
- `firewall-cmd --reload`

Create a new configuration file to use the correct framework.

- `nano /etc/httpd/conf.d/mod_mono_server.conf`
 - Add a line that contains: `MonoServerPath /usr/bin/mod-mono-server4`
 - Save and close
- `apachectl restart`

Now let's copy the panel's files to Apache's Document root

- `cd /var/www/html`
- `cp -r /ugcc/www/* .`
- `cd ../`
- `chown --R apache:apache html`

Fix permissions to allow apache access to /ugcc and its subdirectories. You can also re-run the same commands replacing apache with another username to give other users access to files from within Linux.

- `setfacl --m apache:rwX /ugcc`
- `setfacl --Rm apache:rwX /ugcc`
- `setfacl --Rdm apache:rwX /ugcc`

Start apache

- `systemctl start httpd`

Now try to access the Check.aspx page of the panel to make sure everything is working.

Everything should be working now. You may continue to use the free edition of the panel, but to fully evaluate all the features you will need a license. They are inexpensive and never expire for the hardware they were purchased for.