

# Spearhead Linux Server

## Intro

Now why would you use an operating system like linux for a medal of honor server?

Because Linux is a free operating system for servers and is light(less ram and cpu usage than windows)

The only disadvantage to use Linux instead of Windows is that you cant use very usefull tools like [Gsprotector](#) and Davens fixes (but you can use his linux patches).

The main reason that i made this tutorial is for people who pay allot to game hosting companies and actualy can use the same servers for a cheaper price!!

Now prices are around 0.60€/slot (public) that would make it €15 for just a 20 slot public server.

A Linux VPS with a single core and 256MB ram can handle 1 moh:sh server. The price for this is only €5-7 which is 50% cheaper!

## Getting Started

For the host i use [filemedia](#).

They use servers with SDDs which wont give I/O lag + the price compared to other host providers is allot cheaper.

Pricelist:

	Start	<div>MOST POPULAR</div> Pro	Mega	Extrem
Monthly charges	3,99€	7,99€	15,99€	29,99€
Setup time	10 minutes	10 minutes	10 minutes	10 minutes
Setup fee	none!	none!	none!	none!
Contract period	none!	none!	none!	none!
CPU performance	1000 MHz	2000 MHz	3000 MHz	4000 MHz
vCPUs (add. 4,99€/m.)	1x	2x	3x	4x
Memory	512 MB	1024 MB	2048 MB	4096 MB
HDD space (Raid10)	10 GB SSD	20 GB SSD	40 GB SSD	80 GB SSD
KVM over IP (VNC access)	✓	✓	✓	✓
Root access	✓	✓	✓	✓
IPv4 addresses (add. 1,49€/M.)	1	1	1	1
IPv6 addresses	2	2	2	2
Connectivity	1 Gbit/s	1 Gbit/s	1 Gbit/s	1 Gbit/s
Network availability	99%	99%	99%	99%
Traffic	1 TB @ 1Gbit/s	2 TB @ 1Gbit/s	3 TB @ 1Gbit/s	4 TB @ 1Gbit/s
Location	Germany, Frankfurt	Germany, Frankfurt	Germany, Frankfurt	Germany, Frankfurt
ISOs mount	✓	✓	✓	✓

Now you will see 4 different plans to rent.  
I will explain how many servers you can run according to the RAM.

**512MB:** Can run up to 1 moh server **STABLE** but can run up to 2 moh server **UNSTABLE**.

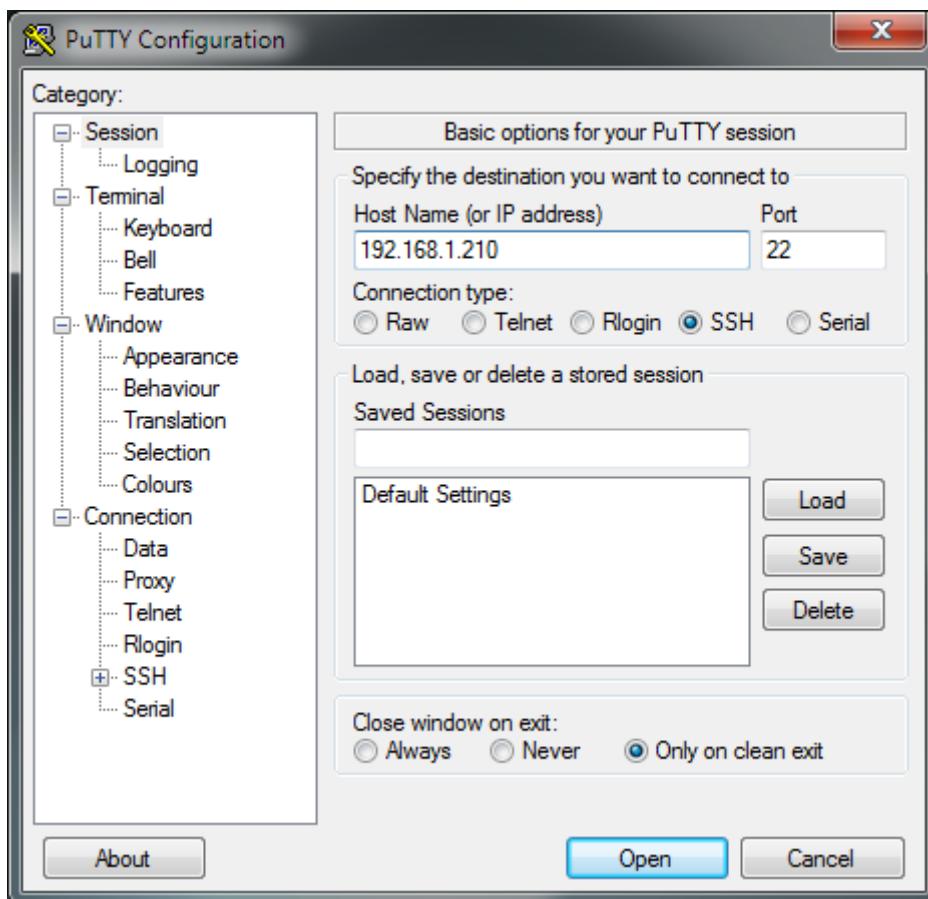
**1024MB:** Can run up to 3 moh servers **STABLE** but can run up to 5 moh servers **UNSTABLE**.

## Software needed

In this tutorial we will use [Putty](#) and [Filezilla](#).

### 1. Using Putty to connect to the server

Open putty.exe, Now fill in your IP adress that you got from your VPS and select SSH after this click on “Open”.



When you get an security message from putty about the SSH key click on “Yes”! This is very important or you wont be able to connect to the VPS anymore..

Now putty will ask you to login as, normally you will get root access on the VPS.

So use: root. After that enter your password given by your host. Note that you wont see your password when you type it!

```
login as: root
root@192.168.1.210's password:
Last login: Wed Jan  2 22:07:17 2002 from 192.168.1.220
[root@server2 ~]#
```

## 2. Installing packages

1st We will install wget, this is needed to download files with the commandline interface.

```
yum install -y wget
```

```
[root@server2 ~]# yum install -y wget
Loaded plugins: fastestmirror
Loading mirror speeds from cached hostfile
 * base: centos.weepeetelecom.be
 * extras: centos.weepeetelecom.be
 * updates: centos.weepeetelecom.be
base | 3.7 kB | 00:00
extras | 3.5 kB | 00:00
updates | 3.4 kB | 00:00
Setting up Install Process
Resolving Dependencies
--> Running transaction check
--> Package wget.i686 0:1.12-1.8.el6 will be installed
--> Finished Dependency Resolution

Dependencies Resolved

=====
Package                                     Arch
=====
Installing:
 wget                                     i686

Transaction Summary
=====
Install      1 Package(s)

Total download size: 481 k
Installed size: 1.8 M
Downloading Packages:
wget-1.12-1.8.el6.i686.rpm
Running rpm_check_debug
Running Transaction Test
Transaction Test Succeeded
Running Transaction
  Installing : wget-1.12-1.8.el6.i686
  Verifying  : wget-1.12-1.8.el6.i686

Installed:
 wget.i686 0:1.12-1.8.el6

Complete!
[root@server2 ~]#
```

Next we will install glibc, this is a library that we need to run the moh server.  
But first we need to know which architecture that our cpu has on the server.

```
lscpu
```

```
[root@server2 ~]# lscpu
Architecture:          i686
CPU op-mode(s):        32-bit
Byte Order:            Little Endian
CPU(s):                 1
On-line CPU(s) list:   0
Thread(s) per core:    1
Core(s) per socket:    1
Socket(s):              1
Vendor ID:             AuthenticAMD
CPU family:             6
Model:                  10
Stepping:               0
CPU MHz:                1243.935
BogoMIPS:               2487.87
L1d cache:              64K
L1i cache:              64K
L2 cache:               512K
```

Here you see that my cpu has i686 architecture. The possible architectures are i686 and x86\_64.

Now go to [rpmfind](http://rpmfind.net) look good to the Distribution and copy the download link (.rpm).

```
cd /home
```

```
mkdir dld
```

```
cd dld
```

```
wget ftp://rpmfind.net/linux/centos/6.4/os/i386/Packages/compat-libstdc++-33-3.2.3-69.el6.i686.rpm
```

```

[root@server2 ~]# cd /home
[root@server2 home]# mkdir dld
[root@server2 home]# cd dld
[root@server2 dld]# wget ftp://rpmfind.net/linux/centos/6.4/os/i386/Packages/com
pat-libstdc++-33-3.2.3-69.el6.i686.rpm
--2002-01-02 22:27:32-- ftp://rpmfind.net/linux/centos/6.4/os/i386/Packages/com
pat-libstdc++-33-3.2.3-69.el6.i686.rpm
      => âcompat-libstdc++-33-3.2.3-69.el6.i686.rpmâ
Resolving rpmfind.net... 195.220.108.108
Connecting to rpmfind.net|195.220.108.108|:21... connected.
Logging in as anonymous ... Logged in!
==> SYST ... done.      ==> PWD ... done.
==> TYPE I ... done.    ==> CWD (1) /linux/centos/6.4/os/i386/Packages ... done.
==> SIZE compat-libstdc++-33-3.2.3-69.el6.i686.rpm ... 193328
==> PASV ... done.      ==> RETR compat-libstdc++-33-3.2.3-69.el6.i686.rpm ... don
e.
Length: 193328 (189K) (unauthoritative)

100%[=====>] 193,328      604K/s   in 0.3s

2002-01-02 22:27:34 (604 KB/s) - âcompat-libstdc++-33-3.2.3-69.el6.i686.rpmâ

```

Now we will install the rpm file:

```
ls
```

rpm -U (To select the filename, select the red text and click the right mouse button to copy-paste it directly.)

```

[root@server2 dld]# ls
compat-libstdc++-33-3.2.3-69.el6.i686.rpm
[root@server2 dld]# rpm -U compat-libstdc++-33-3.2.3-69.el6.i686.rpm

```

Now we will install the unzip:

```
yum install -y unzip
```

```

[root@server2 dld]# cd ..
[root@server2 home]# mkdir server1
[root@server2 home]# yum install -y unzip
Loaded plugins: fastestmirror
Loading mirror speeds from cached hostfile
 * base: centos.weepeetelecom.be
 * extras: centos.weepeetelecom.be
 * updates: centos.weepeetelecom.be
base
extras
updates
Setting up Install Process
Resolving Dependencies
--> Running transaction check
---> Package unzip.i686 0:6.0-1.el6 will be installed
--> Finished Dependency Resolution

Dependencies Resolved

=====
Package                                Arch
=====
Installing:
unzip                                  i686
=====

Transaction Summary
=====
Install      1 Package(s)

Total download size: 143 k
Installed size: 309 k
Downloading Packages:
unzip-6.0-1.el6.i686.rpm
Running rpm_check_debug
Running Transaction Test
Transaction Test Succeeded
Running Transaction
Warning: RPMDB altered outside of yum.
  Installing : unzip-6.0-1.el6.i686
  Verifying  : unzip-6.0-1.el6.i686

Installed:
unzip.i686 0:6.0-1.el6

Complete!

```

Now we will install screen

This is used to put a console into a 'screen' so we dont have to keep putty open to let the server run, otherwise the server will stop when we close putty!

```
yum install -y screen
```

```

[root@server2 server1]# yum install screen
Loaded plugins: fastestmirror
Loading mirror speeds from cached hostfile
 * base: centos.weepeetelecom.be
 * extras: centos.weepeetelecom.be
 * updates: centos.weepeetelecom.be
base
extras
updates
Setting up Install Process
Resolving Dependencies
--> Running transaction check
---> Package screen.i686 0:4.0.3-16.el6 will be installed
--> Finished Dependency Resolution

Dependencies Resolved

=====
Package                                Arch
=====
Installing:
screen                                i686

Transaction Summary
=====
Install      1 Package(s)

Total download size: 484 k
Installed size: 783 k
Is this ok [y/N]: y
Downloading Packages:
screen-4.0.3-16.el6.i686.rpm
Running rpm_check_debug
Running Transaction Test
Transaction Test Succeeded
Running Transaction
  Installing : screen-4.0.3-16.el6.i686
  Verifying  : screen-4.0.3-16.el6.i686

Installed:
screen.i686 0:4.0.3-16.el6

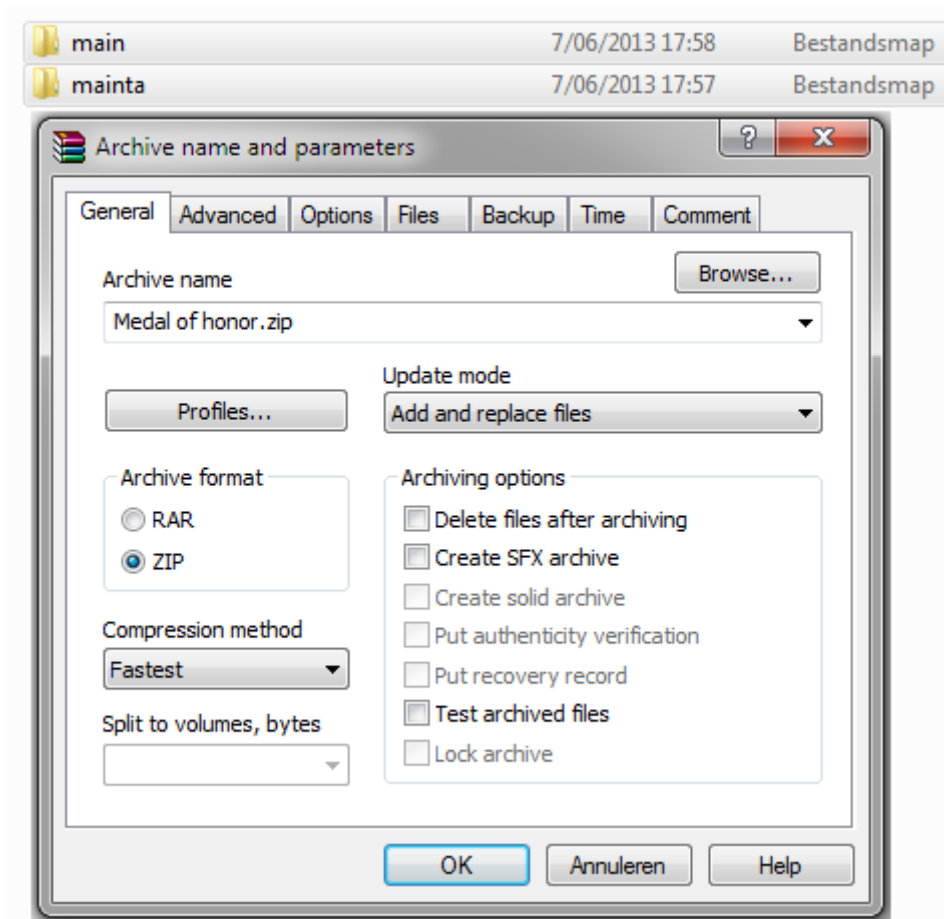
Complete!

```

### 3. Uploading moh to the VPS

To run a moh server on the VPS we need to put moh on it!

Now on your pcselect only main and mainta folder in the moh folder and create zip file from it. (Not a rar file!)



Install Filezilla and open it.  
Type in:

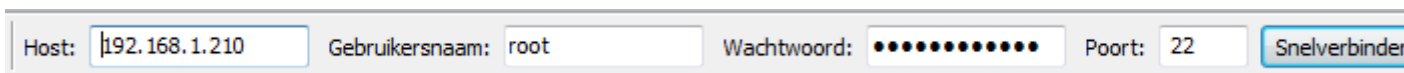
Hosts: your IP of the VPS

Username: root

Password: Your Password

Port: 22

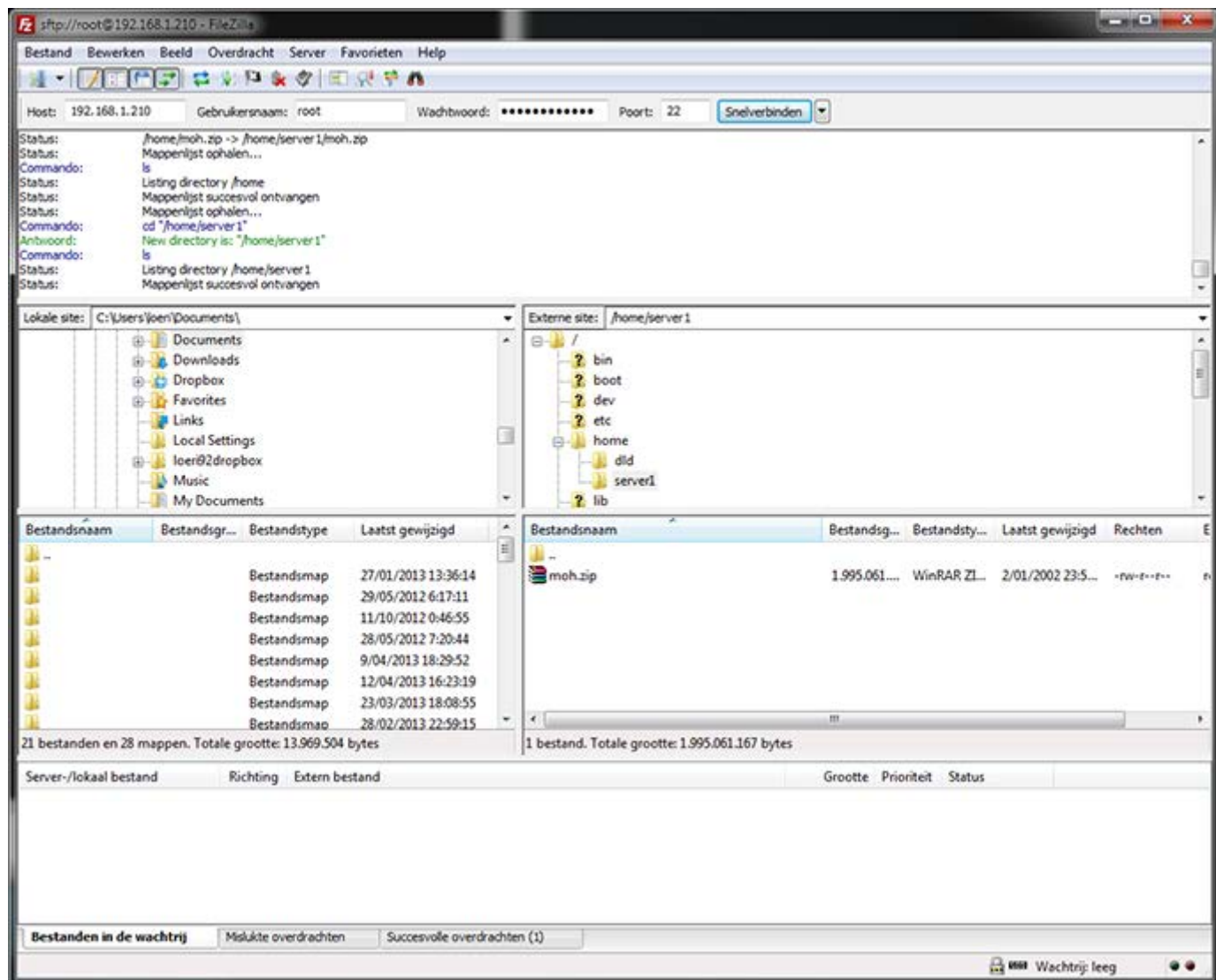
And press “Connect”.



Now on the right side select the folder “/” and navigate to /home and create a folder there named “server1”.

Open the folder and move your moh.zip from you pc in the field.





When the upload is completed (see bottom of Filezilla) lets go back to putty.

```
cd /home/server1
```

```
unzip moh.zip
```

```
[root@server2 server1]# unzip moh.zip
Archive:  moh.zip
  creating: mainta/
  inflating: mainta/cgamex86.dll
  inflating: mainta/config.csv
   creating: mainta/configs/
  inflating: mainta/configs/Crazy_Identity_Players.cfg
  inflating: mainta/configs/foresight.cfg
  inflating: mainta/configs/res.cfg
  inflating: mainta/configs/unnamedsoldier.cfg
  inflating: mainta/configs/vs-uk.cfg
  inflating: mainta/dgamex86.dll
  inflating: mainta/gamex86.dll
   creating: mainta/maps/
   creating: mainta/maps/dm/
  inflating: mainta/maps/dm/redone.min
   creating: mainta/maps/obj/
  inflating: mainta/maps/obj/obj_carentan.min
  inflating: mainta/maps/obj/obj_vire.min
  inflating: mainta/maps/obj/renan.min
  inflating: mainta/maps/obj/swordbeach.min
   creating: mainta/music/
  inflating: mainta/music/MP_ArdenneS_TOW.mus
  inflating: mainta/music/mp_bahnhof_dm.mus
  inflating: mainta/music/mp_Bazaar_dm.mus
  inflating: mainta/music/MP_Berlin_TOW.mus
  inflating: mainta/music/MP_Brest_DM.mus
  inflating: mainta/music/MP_Druckkammern_TOW.mus
  inflating: mainta/music/MP_Flughafen_TOW.mus
  inflating: mainta/music/mp_Gewitter_dm.mus
  inflating: mainta/music/MP_Holland_DM.mus
  inflating: mainta/music/mp_Malta_dm.mus
  inflating: mainta/music/mp_Stadt_dm.mus
  inflating: mainta/music/mp_unterseite_dm.mus
  inflating: mainta/music/MP_Verschneit_DM.mus
  inflating: mainta/music/t111.mus
  inflating: mainta/music/t112.mus
  inflating: mainta/music/t113.mus
  inflating: mainta/music/t211.mus
  inflating: mainta/music/t212.mus
  inflating: mainta/music/t213.mus
  inflating: mainta/music/t214.mus
  inflating: mainta/music/t311.mus
  inflating: mainta/music/t312.mus
  inflating: mainta/music/t313.mus
  inflating: mainta/newconfig.cfg
  inflating: mainta/pak1.pk3
```

Wait untill the unzipping is done.

## 4. Installing the binaries and run a moh server

[Download the binaries here.](#)

Now open the zip on your pc and drag the folder mainta and spearhead\_lnxdded in the folder server1

We will try to run the server now (make sure that you are in the folder server1!!):

```
./spearhead_lnxdded +set dedicated 1 +exec server.cfg +set net_port 12204
```

```
[root@server2 server1]# ./spearhead_lnxdded +set dedicated 1 +exec server.cfg +set net_port 12204
-bash: ./spearhead_lnxdded: Permission denied
[root@server2 server1]# chmod 777 spearhead_lnxdded
[root@server2 server1]# ./spearhead_lnxdded +set dedicated 1 +exec server.cfg +set net_port 12204
--- Common Initialization ---
Medal of Honor Spearhead 2.15 linux-i386 Aug 29 2004
----- FS_Startup -----
Current search path:
/root/.spearhead/mainta
/home/server1/mainta/PK3_Fixes_SH_2.15_&_Demo_(101231).pk3 (16 files)
/home/server1/mainta/pak5.pk3 (12 files)
/home/server1/mainta/pak4.pk3 (59 files)
/home/server1/mainta/pak3.pk3 (311 files)
/home/server1/mainta/pak2.pk3 (767 files)
/home/server1/mainta/pak1.pk3 (6969 files)
/home/server1/mainta
/home/server1/main/pak6.pk3 (104 files)
/home/server1/main/Pak5.pk3 (259 files)
/home/server1/main/Pak4.pk3 (593 files)
/home/server1/main/Pak3.pk3 (669 files)
/home/server1/main/Pak2.pk3 (4722 files)
/home/server1/main/Pak1.pk3 (772 files)
/home/server1/main/Pak0.pk3 (11175 files)
/home/server1/main
-----
26428 files in pk3 files
execing default.cfg
execing buildver.cfg
execing menu.cfg
couldn't exec newconfig.cfg
execing localize.cfg
Config: unnamedsoldier.cfg
couldn't exec configs/unnamedsoldier.cfg
execing localized.cfg
Loading PK3 Fixes
execing autoexec.cfg
couldn't exec custom.cfg
You are now setup for medium mode.
Opening IP socket: localhost:12204
--- Common Initialization Complete --- 2301 ms
Loading Localization File global/localization.txt
--- Error: Invalid Entry... RefName: German Finden und zerstören Sie die Nebelwerfer. [noch &&&] corrects Finden und zerstören Sie d
ie Nebelwerfer. [noch &&& ] LocName: Vind en vernietig de Nebelwerfers. [&&& resterend]noch &&&] corrects Finden und zer
stören Sie die Nebelwerfer. [noch &&& ] Attempting to Recover.
--- Warning: Recovered From Error, Data May have been lost.
execing server.cfg
sv_maxclients will be changed upon restarting.
g_gametype will be changed upon restarting.
----- Server Initialization -----
Server: dm/MP_bazaar_DM
----- Unloading fgameded.so -----
----- Attempting to load ./mainta/fgameded.so -----
LoadLibrary (fgameded.so)
==== InitGame ====
sizeof(Actor) == 3020
Magic sizeof actor numer: 2956
-----
Event system initialized: 176 classes 1465 events 1031360 total memory in response list
==== CleanupGame ====
CM_LoadMap( maps/dm/MP_bazaar_DM.bsp, 0 )
```

Because we don't have the permissions we have to add permissions to the file with "chmod".

```
chmod 777 spearhead_lnxdded
```

Now try this code again:

```
./spearhead_lnxdded +set dedicated 1 +exec server.cfg +set net_port 12204
```

And you should see the moh server starting up the console like the picture above here.  
Congratulations your moh server is now live and running! :)

But when you close putty the server will end. To avoid this we have to put the console in a screen.

```
screen -AdmS server1 ./spearhead_lnxdded +set dedicated 1 +exec server.cfg  
+set net_port 12204
```

```
[root@server2 server1]# screen -AdmS server1 ./spearhead_lnxdded +set dedicated 1 +exec s
```

Now you won't see the console anymore, to see the console use this code:

```
screen -r server1
```

```
[root@server2 server1]# screen -r server1
```

Now go look in the server list and you will see the server in the list! (If you configured it all good..) :)



*Note that this is in my lan servers because i used a local machine to make this tutorial!*