

Guides

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How To Set Up A Black Ops 3 Server (Steam)

PREREQUISITES

- A dedicated machine to host your server. This can be a server in your home or preferably a VPS.

Recommended specs:

CPU:

Intel Xeon E3-1230v6 - 4c/8t - 3.5 GHz/3.9 GHz

RAM:

16GB DDR4 ECC 2133MHz

STORAGE:

200Gb or Higher (depends on how many custom maps you're going to run)

Only running one server? Below are the minimum specs for smooth operation. Keep in mind you may be wanting to run an RCON tool, that uses CPU resources.

Minimum specs:

CPU:

Xeon E3-1220v6 4C/4T 3.0 GHz /3.5 GHz

RAM:

4GB DRR4 Non ECC or ECC 2133Mhz

STORAGE:

125Gb or Higher (depends on how many custom maps you're going to run.)

You may alternatively go with AMD EPYC/Threadripper processors if your VPS allows for it.

- A stable hard-lined Internet connection where you are behind a firewall/router so you can modify port forwarding and NAT.

“ **All traffic for the server itself is UDP. There's no need for TCP.**
Remember that when port forwarding. ”

Windows Firewall & Gateway Configuration

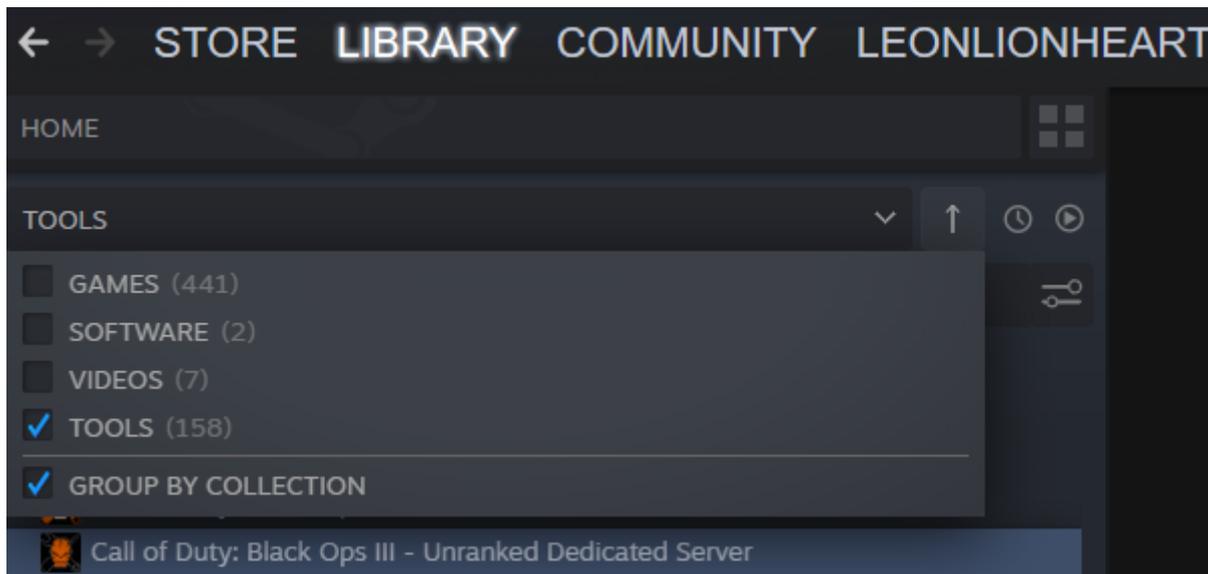
- Notepad++ or another advanced text editor.

Files:

“ Heavily modified Black Ops 3 server files: [Server Config](#)
Remove unwanted services and bloatware with [this script](#)
(run as administrator)

GETTING STARTED

To start, if you own the game on Steam, you will find in the Tools section of your Steam Library, Call of Duty: Black Ops III - Dedicated Server.



- You do not need the game installed to run a dedicated server.

Your Black Ops III dedi game folder, commonly found at:

"C:\Program Files (x86)\Steam\steamapps\common\Call of Duty Black Ops III\UnrankedServer\"

To start the server, simply run the Launch_Server.bat file. **IT'S HIGHLY ENCOURAGED TO USE THE ATTACHED CONFIG FILES!**

NOTES:

- Game logging is completely broken and does not update in real-time as of 6/9/20.
- Kicks and bans work, however, in-game commands do not currently due to logging issues.
- The most supported RCON tool is "Black Ops 3 - Remote Console" from Steam.

- [IW4M Admin - By RaidMax](#)

Non-Steam Install

You will need SteamCMD in order to download the server files. You can download it here:

[SteamCMD](#)

- Create a new folder in your C: drive named anything you want. For example: BO3Dedi
- Create a sub-folder called SteamCMD and extract steamcmd.exe into your newly created sub-folder.

Once it asks for an login use:

```
“ login anonymous
```

Now you need to enter the following in the console:

```
“ force_install_dir C:\BO3Dedi
```

Now you can start the download with:

```
“ app_update 545990 validate
```

Once completed, feel free to exit out of SteamCMD.

IT IS VITAL TO HAVE STEAM INSTALLED AND AN ACCOUNT SIGNED IN AT THIS POINT. The account does not need to own BO3. The account is pretty much a service account to download Steam

WorkshopIDs.

CONFIGURATION

To begin, you'll need to modify a few things in Start.bat

Everything is explained in the file.

Now that you know how to launch and admin your server, let's discuss the playlists.info file.

Located in the machinecfg folder within your game folder, the playlists.info file contains all your Playlists. Playlists allow you to specifically configure the maps run on your server as well as the game types and their associated rules. An example playlists.info file has been included to help you understand how this file is setup.

Let's break down Playlists

- playlist 1 / Sets the Playlist number for reference in the Launch_Server.bat
- rule party_minplayers 1 / Gametype Setting that sets the minimum players required for the server to start a match
- mp_apartments,tdm / Adds mp_apartments running team deathmatch to the map rotation
- mp_apartments,ctf / Adds mp_apartments running capture the flag to the map rotation
- mp_biodome,tdm / Adds mp_biodome running team deathmatch to the map rotation
- 2095050110,dom / Adds the custom map from Steam workshop running domination to the map rotation

NOTE: ENSURE THAT THE MAP SUPPORTS THE MODE YOU SELECTED. Most of the time the map creator will mention the supported gamemodes in their descriptions.



<https://steamcommunity.com/sharedfiles/filedetails/?id=2095050110> & searchtext=mp

Workshop ID

Gametype settings allow the user to configure in the Playlist file the rules of their specified game type. This can include increasing round timer, changing the amount of points to win a round, and many other options. The following are all the available gametype settings. **If you use the custom game settings in game and run the gamesettings_generateconfig console command, a config file will be generated in your local_storage/users folder with all the gametype settings used.

KNOWN PLAYLISTS CONFIG SETTINGS

“ DNW = Does not work in playlist settings.
NT = Not Tested - fully.

“ // This part of the guide has been moved [here](#), please visit [this page](#) to see the updated configs for playlist.info

MAPS

“ Stock Maps
mp_apartments (Evac)
mp_biodome (Aquarium)
mp_chinatown (Exodus)
mp_ethiopia (Hunted)
mp_havoc (Havoc)
mp_infection (Infection)
mp_metro (Metro)
mp_redwood (Redwood)
mp_sector (Combine)
mp_spire (Breach)
mp_stronghold (Stronghold)
mp_veiled (Fringe)
mp_nuketown_x (Nuke3town)

DLC1

mp_crucible (Gauntlet)
mp_rise (Rise)
mp_skyjacked (SkyJacked)
mp_waterpark (Splash)

DLC2

mp_aerospace (Spire)
mp_banzai (Verge)
mp_conduit (Rift)
mp_kung_fu (Knockout)

DLC3

mp_arena (Rumble)
mp_cryogen (Cryogen)
mp_rome (Empire)
mp_shrine (Berserk)

DLC4

mp_city (Rupture)
mp_miniature (Micro)
mp_ruins (Citadel)
mp_western (outlaw)

GAMEMODES

“ Team Deathmatch -- tdm
Free For All -- dm
Search and Destroy -- sd
Capture the Flag -- ctf
Domination -- dom
Hardpoint -- koth
Uplink -- ball
Kill Confirmed -- conf
Gun Game -- gun
Demolition -- dem
Safeguard -- escort
Fracture -- clean

Couple important notes:

- We recommend always having at least one official map in your map rotation in case the Workshop map has issues.
- Playlists can get very complicated, it can help a lot to use source control for your playlists so you can track changes in case something stops working. This could be helpful for your `Launch_Server.bat` as well.
- Antivirus and Firewall softwares can conflict with running an unranked dedicated server. Please make sure to attempt standard troubleshooting when experiencing issues with your unranked dedicated server or people attempting to join it.

Windows Firewall & Gateway Configuration

Ports: are simply virtual pipelines that allow computers and devices to communicate and send information back and forth on the Internet.

Port forwarding: – or creating a port forward – is a common process in gaming that makes your gaming console or PC more accessible to other gaming consoles or PCs on the Internet. Port forwarding can improve connection speed, lobby wait times, and overall gameplay, particularly for a host.

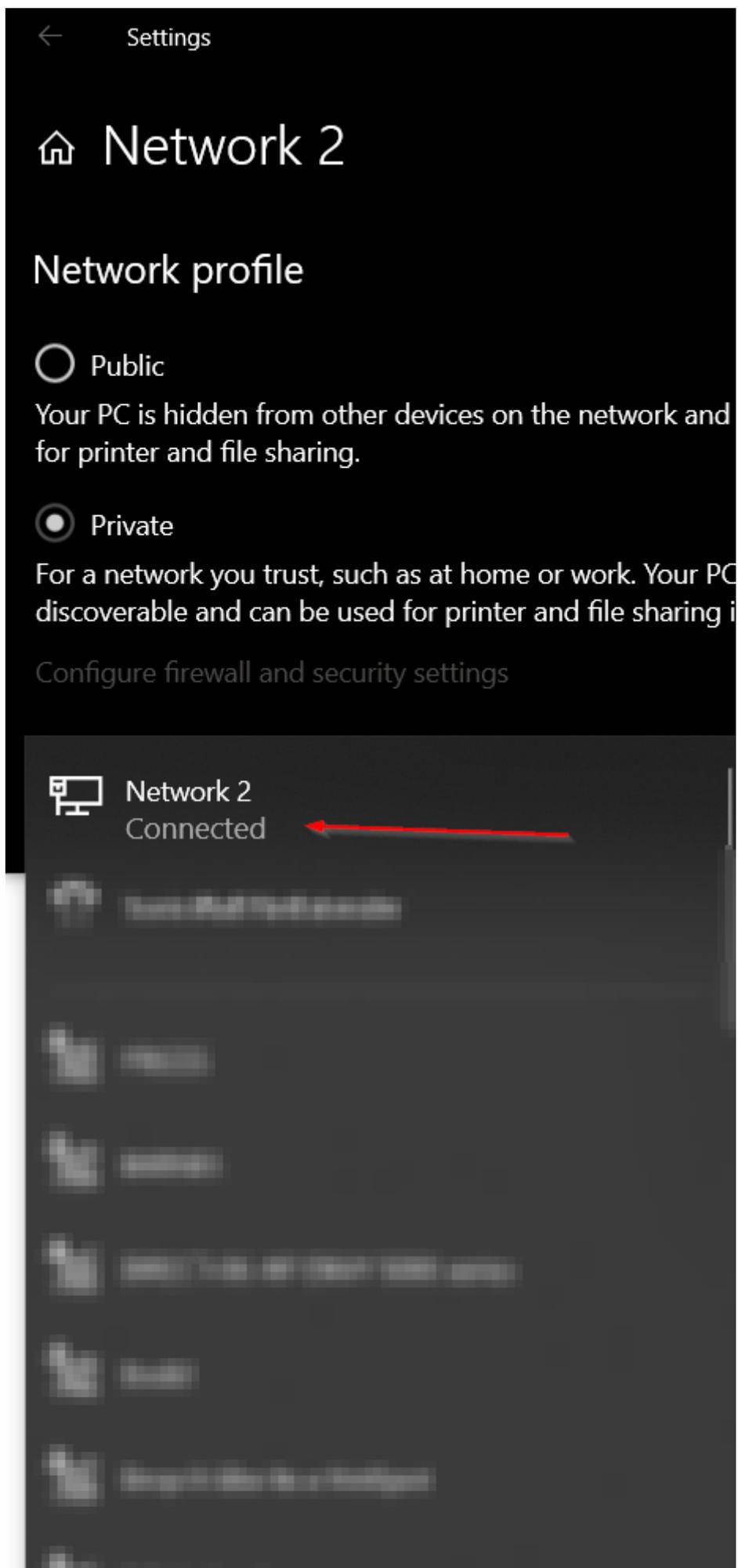
NAT: (Network Address Translation) is a networking concept that allows your router to share a single IP (Internet Protocol) address across multiple devices on your network. Instead of your ISP (Internet Service Provider) assigning an IP address to every device that connects to the Internet, NAT allows your ISP to assign a single IP address to your router. The router then manages a set of IP addresses for all devices on your home network.

WINDOWS FIREWALL CONFIGURATION

WINDOWS 10 & WIN SERVER 2012 R2 - WIN SERVER 2019

1. It is **STRONGLY RECOMMENDED** to set a static IP to your host machine/server. Learn more: <https://stevessmarthomeguide.com/setting...indows-10/>

2. Check your current network type, this will be important for later. I'd strongly advise setting your type to PUBLIC.



3. Search "Windows Defender Firewall with Advanced Security" and go to Inbound Rules.
4. Go to Actions > New Rule...
5. In the next few menus you'll do the following. Port > Specific local ports > UDP 27017 > Allow the connection > Uncheck all but Public > Name accordingly to your new rule.
Note: You can specify a port range of your choosing if you plan on running multiple servers on one host machine. For example, 27017-27025.
- Make sure your ports do not conflict with known internet ports. Find more [here](#).
Note: Ensure that the rule is set for the correct network type your adapter is running. For example, if Public, then set Public in the settings.
Note: Windows Firewall is a leap, I know, if you are having issues I'd try enabling all network types in your rule i.e Public, Private, Domain.
6. Done.

GATEWAY CONFIGURATION

Ubiquiti UDM - Port Forwarding & NAT

- Not all gateways/firewalls are the same. However, they all share the same concept. If you have a VPS that manages the network, please follow their resources.

- Ubiquiti UDM like most, automatically creates NAT rules for your port forward rule.

1. Login to your gateway/firewall. Alternatively go to your network configuration settings on your VPS.
2. Find port forwarding via your manufacture's manual.
3. Create a new port forwarding rule.
4. Name your rule.
5. Set a forwarding IP, i.e 192.168.1.250
6. Set incoming port and bind it to the forward port i.e 27017-27025.
7. Set all traffic UDP.
8. Save.

CREATE NEW PORT FORWARD RULE

Name	Black Ops 3 Server
Enabled	<input checked="" type="checkbox"/> Enable this port forward rule

a learning curve sometimes.