

Brink – Windows Dedicated Server Guide

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1.1. Initial Setup

1.1.1. Port Mappings

Each Brink server requires two ports forwarding in your Firewall or security software:

- net_serverPort (default 27015) – This is the port on which game traffic will be transmitted
- net_serverPortMaster (default 27016) – This is the port on which server list and ping queries will be conducted
- net_serverPortAuth (default 8766) – This is the port on which the server will authenticate with Steam

The port numbers **have** to be defined from the command line, as the .exe is run. They cannot be run from a config, or entered into the console after the server has launched

1.1.2. Thread Limiting

Brink has a scaling jobs system that can run multiple threads if there multiple cores available on the server. Machines with multiple core may find a large amount of CPU being used if they leave this scaling unlimited to we have a command to control this: **exec_maxThreads**

This command controls the amount of jobs threads that get spawned and it defaults to 16. By default it is the number of logical cores - 1, but a minimum of 2 if the machine is a multi-core machine (unsupported single core machines only get one thread).

Default behavior:

- 1 logical core, 1 job thread
- 2 logical cores, 2 job threads
- 3 logical cores, 2 job threads
- 4 logical cores, 3 job threads

This cvar will have to be set on the command line as '+set exec_maxThreads <value>'

1.2. Launching the Server

This section will take you through the simplest steps to setting up your own server.

1.2.1. Dedicated Server .bat Files

Once setup has been completed you can go ahead and try launching a server. The Brink dedicated server comes with three .bat files that can be used to launch the game:

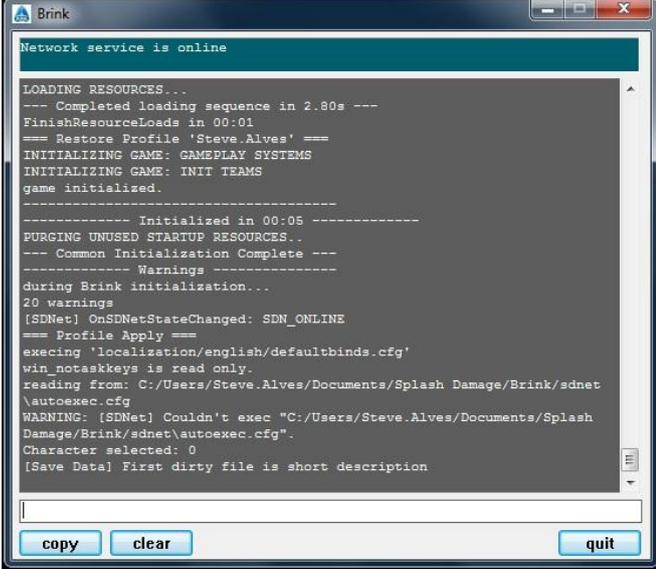
- Brink_ded1.bat
- Brink_ded2.bat
- Brink_ded3.bat

Each of these .bat files defines a few simple configuration settings, these are server name, server port and server port master. These .bat files can be used as examples for how you could setup your own basic .bat file to launch the servers.

For now, edit the si_name cvar to something appropriate to you in one of the .bat files, set the three port cvars to match the port forwarding rules you setup in your Firewall, then save and execute the .bat file.

1.2.2. Dedicated Server Console

After the .bat file has been run you should be presented with the dedicated server console.



```
Brink
Network service is online

LOADING RESOURCES...
--- Completed loading sequence in 2.80s ---
FinishResourceLoads in 00:01
=== Restore Profile 'Steve.Alves' ===
INITIALIZING GAME: GAMEPLAY SYSTEMS
INITIALIZING GAME: INIT TEAMS
game initialized.

----- Initialized in 00:05 -----
PURGING UNUSED STARTUP RESOURCES..
--- Common Initialization Complete ---
----- Warnings -----
during Brink initialization...
20 warnings
[SDNet] OnSDNetStateChanged: SDN_ONLINE
=== Profile Apply ===
execing 'localization/english/defaultbinds.cfg'
win_notaskkeys is read only.
reading from: C:/Users/Steve.Alves/Documents/Splash Damage/Brink/sdnet
\autoexec.cfg
WARNING: [SDNet] Couldn't exec "C:/Users/Steve.Alves/Documents/Splash
Damage/Brink/sdnet\autoexec.cfg".
Character selected: 0
[Save Data] First dirty file is short description

copy clear quit
```

From this screen console commands can be executed on the server. It is possible to tab out commands so you only have to type a partial command and then press the tab key to see a list of all possible options based on what you have entered thus far. E.g. typing “spawnServer mp/” and then pressing tab will show a list of all maps that can be loaded.

Now we have the console open we’ll skip entering too many commands and cvars manually and instead will execute and existing game rules config.

1.2.3. Server Configuration Files

Brink has four types of Game Mode:

- **Campaign**
This is the game mode to be used for playing Brinks’s campaign mode, which takes the player through each faction’s story campaign and the maps in order. It can be played in solo or Co-Op. This mode is essentially the traditional singleplayer/co-op style story mode.
- **Challenge**
These are small scripted maps that set the player a challenge to complete with the best score they can get. This mode can be played solo or Co-Op
- **Objective**

This is the basic multiplayer mode and shares similar rules to Campaign, it will be familiar to players of Wolf:ET and ETQW. Initially this is likely to be the most popular mode for multiplayer Brink.

- **Stopwatch**

Stopwatch is a variant of Objective, where at the completion of a match the teams are swapped over and the defenders during the first half of the match attempt to set a faster time than the one the attackers set. This will also be familiar to players of Wolf:ET and ETQW.

In addition to these game modes it's possible to apply various pre-set configurations to Objective and Stopwatch modes, these are:

- **Standard**

This is the default config for Brink and is used during the Campaign mode. It attempts to create a friendly environment for new multiplayer gamers by removing friendly fire and limiting VOIP to fire teams. The settings are:

- Team Damage: Off
- Maximum Players : 16
- Maximum Team Size: 8
- Rank Restrictions: On
- Fixed Map Duration: Off
- Overtime: On
- Global VOIP: Off
- Team VOIP: Off
- Bots: On
- Voting: Off

- **Advanced**

The Advanced config mimics the Standard config but removes the more 'new guy' friendly settings in favour of a more traditional multiplayer FPS setup, where VOIP is on for each team and friendly fire is possible. The settings are:

- Team Damage: On
- Maximum Players : 16
- Maximum Team Size: 8
- Rank Restrictions: On
- Fixed Map Duration: Off
- Overtime: On
- Global VOIP: On
- Team VOIP: On
- Bots: On
- Voting: Off

- **Competition**

This config is geared towards players who like to compete in tournaments and provides some settings similar to popular 'Pro mode' mods in other FPS games, things such as removing rank restrictions, removing buffs and limiting team sizes. Its settings are:

- Team Damage: On
- Maximum Players : 16
- Minimum Players: 4
- Maximum Team Size: 5
- Rank Restrictions: Off
- Ready-Up Percentage: 50%
- Spectating When Incapacitated: Off
- Spectator Mode: Off
- Command Post Buffs: Off
- Fixed Map Duration: On
- Overtime: Off
- Global VOIP: On
- Team VOIP: On
- Bots: Off
- Voting: Off
-
- **Old Skool**
Finally Old Skool is aimed at players who want something closer to the original Enemy Territory style games, Splash Damage's previously titles. That means no bots, fixed map times and no rank restrictions. Its settings are:

- Team Damage: On
- Maximum Players : 16
- Maximum Team Size: 8
- Rank Restrictions: Off
- Fixed Map Duration: On
- Overtime: Off
- Global VOIP: On
- Team VOIP: On
- Bots: Off
- Voting: Off

To allow server administrators to quickly execute these Game Modes and configurations the dedicated server comes with a number of config files (.cfg) included. These files apply a game mode and a config as well as several other settings. These config files are found in the \base folder are:

- server_campaign_resistance_coop.cfg
- server_campaign_security_coop.cfg
- server_challenge_coop2.cfg
- server_challenge_coop3.cfg
- server_challenge_coop4.cfg
- server_objective_advanced_vs.cfg
- server_objective_competition_vs.cfg
- server_objective_oldskool_vs.cfg
- server_objective_standard_vs.cfg (We'd recommend using this as the default config)
- server_stopwatch_advanced_vs.cfg
- server_stopwatch_competition_vs.cfg
- server_stopwatch_oldskool_vs.cfg

- `server_stopwatch_standard_vs.cfg`

It is possible for you to create your own server configs with your own settings, or set cvars directly in the console, but these pre-made ones are a good place to start. For now let's run one of these configs. In the console type:

- `Exec server_objective_standard_vs.cfg`

Hit enter and the config will be applied.

1.2.4. Spawning a Server

With the pre-made config executed you should be ready to start up the server. This is done by typing the command `'spawnServer'` in the console along with the name of the map you'd like to run, E.G.

- `spawnServer mp/aquarium.entities`

When the map has finished loading the clients will be free to connect.

1.3. Remote Console

Although this cannot be tested without a copy of the Brink client it is possible for server admins to use the game's console to remotely access their server and perform admin actions. To allow RCON the following must be done:

- The server has to set a password using `'net_serverRemoteConsolePassword <password>'`
- The client needs to set the address of the server `'net_clientRemoteConsoleAddress <Host IP>'`
- The client needs to enter the password set on the server using `'net_clientRemoteConsolePassword <password>'`

1.4. Server Hijacking

Like some other FPS games (e.g. Left4Dead) Brink allows players to play through the story Campaign and other modes in Co-Op on a dedicated server. Obviously most server admins will choose to setup their servers for the regular multiplayer modes (Objective and Stopwatch) but they may still want to offer their server to others, when it's not in use, to play Co-Op on.

'Server Hijacking' is our solution to this issue. Servers flagged with the cvar **net_allowServerHijacking 1** (on by default) can be borrowed by players who are using matchmaking under the following circumstances:

- `net_allowServerHijacking` needs to be set to 1
- The server needs to be empty

If these conditions are met then when players are matchmaking into the game it will try to place them on a hijackable server and will replace the server's settings with the default

config that the player matching is requested. These settings will remain on the server until all clients leave the session, at this point it will automatically restore the settings and config that was originally on the server.

If the server admin wishes to use his server whilst it is being hijacked he is free to kick the players from the server and this will restore his settings 30 seconds afterwards.

Obviously, if the admin does not wish server hijacking to be enabled then `net_allowServerHijacking` should be turned to 0.

1.5. Map Rotations

Administrators are able to define their own map rotations and map vote lists for their server. Map rotation is only allowed for the Objective and Stopwatch game modes, do not set a map rotation when using the `si_rules` settings `sdGameRulesChallenge` and `sdGameRulesCampaign`.

Map rotation control comes in two flavors:

- `g_mapRotationFixed` - set a fixed map rotation
- `g_mapRotationVote` - restrict the maps players may vote on at match end

Both of these cvars are set using the following format:

- `g_mapRotationFixed "mp/<MAP NAME>, mp/<MAP NAME>, mp/<MAP NAME>"`

Or, as an example:

- `g_mapRotationFixed "mp/ccity, mp/aquarium, mp/refuel"`

If neither of these cvars is set then the game mode's default rules for map rotation will be used.

For more information about map rotations you can check the `server_map_rotation_examples.cfg` in the `\base` folder of the dedicated server.

1.6. Passworded Servers

To password a server and ensure it isn't available to the public there are two cvars that need to be set, either in the console or in your config.

- `si_needpass` – Set to 1 if you want the server passworded
- `g_password <PASSWORD>` - sets the actual password string

1.7. Custom Configs

When building a config of your own there are some things you have to bear in mind.

The following cvars should always be included:

- `si_name "<NAME>"` – Your server's name
- `si_rules` – Set the game mode
- `si_playMode` – Set the type of game

- si_onlineMode 3 – Ensures the game is multiplayer

1.8. Map Names

Currently the game's code represents the map's name and path in three different ways, e.g.:

- mp/aquarium
- mp/aquarium.entities
- maps/mp/aquarium.entities

When refereeing to maps in .bat or .cfg files the standard format of **mp/mapname** will always work, therefore the following list should be considered the list of map names to be used:

- mp/aquarium
- mp/ccity
- mp/reactor
- mp/refuel
- mp/resort
- mp/sectow
- mp/shipyard
- mp/terminal

1.9. Rank Restrictions

It's possible to restrict who can join a game of Brink by the character's rank, so that only players of the same rank or lower can join the session.

Brink has five player ranks, the cvar si_maxRank controls the rank of the server that the player ranks are compared against, so:

- si_maxRank 0 = Rank 1 players only
- si_maxRank 1 = Rank 1 and 2 players only
- si_maxRank 2 = Rank 1, 2 and 3 players only
- si_maxRank 3 = Rank 1, 2, 3 and 4 players only
- si_maxRank 4 = All player ranks can join

1.10. Other Console Commands

This is a list of other useful console commands and cvars that a server admin may wish to use:

- Setting Game Modes
 - si_rules sdGameRulesStopWatch
 - si_rules sdGameRulesObjective
 - si_rules sdGameRulesChallenge
 - si_rules sdGameRulesCampaign
- Setting Play Mode
 - si_playmode 0 = solo

- si_playmode 1 = Co-op
- si_playmode 2 = versus
-
- Setting the map
 - spawnServer mp/aquarium.entities
 - spawnServer mp/ccity.entities
 - spawnServer mp/reactor.entities
 - spawnServer mp/refuel.entities
 - spawnServer mp/resort.entities
 - spawnServer mp/sectow.entities
 - spawnServer mp/shipyard.entities
 - spawnServer mp/terminal.entities
 - spawnServer sp/challenge_01.entities
 - spawnServer.sp/challenge_03.entities
 - spawnServer.sp/challenge_05.entities
 - spawnServer.sp/challenge_06.entities
-
- Setting up RCON
 - net_serverRemoteConsolePassword <password>
 - net_clientRemoteConsoleAddress <Host IP>
 - net_clientRemoteConsolePassword <password>
-
- Admin commands
 - admin startMatch – Will take a match out of warm-up
 - admin kick – Kicks a user from the server
 - admin kickAllBots – Kicks all AI bots from the server
 - admin restartMap – Restarts the current map
-
- Server Settings
 - si_teamDamage – Friendly fire on/off
 - si_name – Set the server name
 - si_maxPlayers – Set the server size
 - si_minPlayers – Number of players required to start a match
 - si_spectators – Enable/disable spectating
 - si_timelimit – Change the time limit
 - si_teamForceBalance – Set if players can only join the smaller size team
 - si_disableVoting – Disables votes
 - si_botDifficulty – Changes bot difficulty
 - si_readyPercent – Percentage of players that need to ready up to start a match
 - si_warmupSpawn – Allows players to spawn and play during warm-up period
 - si_enemyTintEnabled – Enables/disables rim lighting tints on enemies

1.11. Server Advertising

Currently most of the cvars that should be used to advertise the server's host are not working. We aim to fix these issues very soon after launch and recommend that for the time being `si_name` is used to denote the host of the server.

The inactive cvars being referred to are:

- `si_adminName`
- `si_email`
- `si_irc`
- `si_motd_1`
- `si_motd_2`
- `si_motd_3`
- `si_motd_4`
- `si_website`
- `si_serverURL`