

# BATTLEFIELD 4™

## HIGH TICKRATE BETA



### HIGH TICKRATE BETA FOR PC RENTAL SERVERS

Starting today, we are sending the rental server providers a new build which enables the first BETA of our high tickrate server!

This means that there will be popping up servers in your server browser where simulation runs at a higher rate than 30hz in the very near future!

#### WHAT IS HIGH TICKRATE?

Normally, servers in Battlefield 4 run at 30hz (30 updates a second or a delay of 33ms). With this change, we allow the servers to run faster than that. All the way up to 144hz! (144 updates in a second or a delay of 6.9 ms!). As you can imagine, this has a pretty significant effect on how the game plays, feels and how *precise* it is.

In general, a higher tickrate significantly improves on and in some cases fully removes netcode issues such as:

- Dying behind cover
- Not seeing bullets impact when shooting enemies [AKA "dusting"]
- Burst damage (getting killed in a single frame)

On top of this, it also makes the game run much *smoother* in regards to running around and colliding with things.

In general you will be able to play on servers where hit registration, player to player delays and lots of other things will be significantly better and faster – some even say *it is like a new game...*

#### ANY CAVEATS?

All of these improvements come at a price: higher tickrate requires both the server/client to do more work, and using more bandwidth to do it.

With the groundwork laid down in the Fall and Winter patch, and our extensive collaboration with the Hardline team, we have been able to make these added costs bearable!

Keep in mind this is still a BETA, and we are continuously improving the experience! For the upcoming Fall Patch we have several improvements and many of the known issues are fixed there.

## CONFIRMING HIGH TICKRATE

How do I know that I am playing on a high tickrate server? Shortly Battlelog will include filters and server properties for the tickrate, but until then the best way to confirm if a server runs a specific tickrate is to look at:

- The loading screen icon & number (bottom left corner)
- The spawn screen tickrate value (top left corner)
- The Network Overlay (enable under gameplay options/advanced)

## KNOWN ISSUES

Speaking of known issues, these are the current known issues on servers with high tickrate enabled:

- Flying with mouse is not 1:1 with 30hz –mitigate by setting your vehicle sensitivity up for now! (Fixed in Fall Patch)
- Sprint acceleration is not 1:1 with 30hz, this means that players change speed too quickly when using the sprint key (Fixed in Fall Patch)
- Higher tickrates use quite a lot more bandwidth than 30hz (Significant improvements in Fall patch)
- Weapon spread/recoil is not 1:1 with 30hz in retail (fixed on CTE) (Fixed in Fall Patch)
- Water simulation (waves) seems to degrade over time (Maps like Paracel Storm, Hainan Resort, Lancang Dam in particular), causing server to behave worse over time (Fixed in Fall Patch)
- EOD bot is very hard to kill in the current (Working on potential fix)
- Your player has jittery legs when parachuting (Working on potential fix)
- Sometimes ragdolls fly quite a bit further than expected upon death
- Sometimes the vehicle icons on the mini map/deploy screen spins in a weird way

## DICE SERVER RECOMMENDATIONS

While we allow the Rental Server Providers to control their own limits for the servers, we have given them some guidelines:

- For 64 player servers we recommend a single instance per hardware, limiting max tickrate to 60hz
- For 48/32 player slots we recommend half the number of instances running per hardware (normally translates to 2 instances instead of 4 per server)
- For 48/32 player slots we recommend limiting the max tickrate to 120hz
- For <20 player slots we recommend limiting the max tickrate to 144hz

## POWER TO THE PLAYERS

A key aspect of this BETA is that you, the players know how to tell if a server is performing well, and if your connection and computer is handling the increased load and bandwidth properly.

With the Summer Patch, we introduced a bunch of new network, server and utility icons that will pop up on your HUD as both warning and severe version of the icons.

	SERVER	CLIENT			PC ONLY	
	Server Performance	Packet Loss	High Latency	Latency Variation	Low FPS	Refresh Rate
WARNING						
SEVERE						

### ICON DETAILS

Every time a value is outside of the parameters for a **warning** or **severe** the HUD will show this particular icon for *1 second*.

Keep in mind we are not using averages for these icons (like FPS for instance), which means a frame spike can trigger this icon even if your FPS looks all right in an overlay like Fraps or equivalent.

All icons explained:

- Server Performance

**Warning:** The server is under high load, and you might notice issues when playing the game

**Severe:** The server is overloaded, and is probably running a tickrate that is too high for the number of players allowed. Leave the server if you see this icon!

- Packet Loss

**Warning:** Your internet connection to the server has some packet loss, this will probably affect the game in a negative way. If it continues, you are either playing on a server which is too far away, the server is under stress which causes packet loss, or your internet connection can't handle the added load of the current tickrate.

**Severe:** Your internet connection to the server has severe packet loss, and the gameplay will suffer quite significantly. Leave servers when and if you see this icon for an extended period of time!

- High Latency

**Warning:** Your latency (ping) to the server is considered high at the moment, if this persists you should look for another server.

**Severe:** Your latency (ping) to the server is considered very high/unplayable – leave the server and find another one!
- Latency Variation

**Warning:** Your connection latency is fluctuating in an abnormal way, this might be a hiccup, but if it persists over time your gameplay will suffer.

**Severe:** Your connection latency is fluctuating in an exceeding way, this will have very bad effects on the game – leave the server and find a new one!
- Low FPS

**Warning:** Your Frames Per Second dipped below the current tickrate – maintaining a framerate HIGHER than the tickrate is recommended at all times. Playing with a lower framerate can cause smaller glitches.

**Severe:** Your Frames Per Second dipped below a very low value – indicating that your computer is croaking under the added load of the high tickrate. Leave the server and find one which runs a less high tickrate or lower your settings until it goes away.

## FEEDBACK

Please direct all feedback to the CTE Sub-Reddit (as this is where we are working on improving the BETA): [https://www.reddit.com/r/Battlefield\\_4\\_CTE/](https://www.reddit.com/r/Battlefield_4_CTE/). Mark your post with the "High Tickrate" flair if possible!

We are very excited to finally see this feature in the wild – hope you are too!

See you on the Battlefield!

David Sirland (@tiggr\_) & The Battlefield 4 Team

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