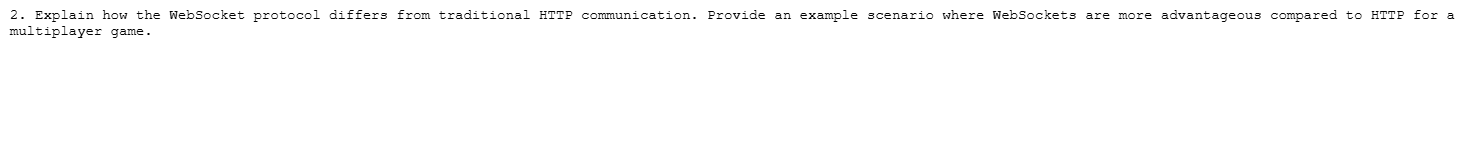


Answer:

HTTPS is prefered over HTTP for managing game backend features such as user logins, data exchange and in-game purchases because:

1. TLS – Transport Layer Security is employed by https, encrypting data sent between the server and client, ensuring login credentials and payment information is not intercepted by attackers.
2. HTTPS protects the integrity of the information sent, making sure that data is not altered during transition.
3. Authentication certificates (SSL/TLS) are used so players know they are connecting to the legitimate service provider and not a bad actor.



1. Less overhead with WebSocket's makes frequent smaller data transfers more efficient over traditional HTTP transfers.
2. HTTP communication requires the use of the request-response cycle whereas WebSocket's establish a single persistent connection after the initial handshake, resulting in less unnecessary data transfers.
3. The lack of a need for the request-response cycle also allows WebSocket's to have real-time two-way communication between the client and server.

Example scenario:  
In a fast-paced multiplayer first person shooter game, players are experiencing less latency due to the use of a WebSocket over HTTP for data transfers relating to real time updates for the player, teammates and enemy positions, along with constant changes to players values such as health, damage and hit detection. Using HTTP would be far more resource intensive and less efficient. Causing more ‘lag’ for the players and possibly making the developers consider downscaling certain elements of the game to fix it. Potentially resulting in a worse product, a WebSocket may be an elegant alternative solution to prevent that.