Technical challenges of game servers

**Latency:**

Latency can be a challenge for technical side of making game servers, the geographic location of the server can really affect the user’s experience of the game when playing in a multiplayer game. The location of the server must be within the user’s region to avoid such bad latency when playing the game causing bad experiences and losing users to drop the game entirely.

The network engineer must figure out where to place their servers to achieve maximum coverage over the region.

**Bandwidth:**

**Security:**

Online game servers pose a special security threat since they can expose the player’s IP address which can in term can be DDoS or other form of cyberattack. This type of challenges are sometime beyond the game developers’ control.

**Server modification (modified server):**

**Protocols:**

The network engineer has two type of protocols to work with, TCP and UDP. Each protocol has their own advantages and disadvantages. Games are usually built around UDP since it’s the best effort of communication between client and server, and TCP is usually a fairly bad choice when developing a multiplayer game.