

Avoid Proxies When Using P2P Networks

I've noticed that using a proxy with qBittorrent often leads to significantly slower download speeds. While peer-to-peer (P2P) networks, such as those used in torrenting, can offer inherent speed advantages over traditional client-server models, introducing a proxy can negate these benefits.

P2P networks offer speed improvements due to:

- **Distributed Load:** Files are divided into small pieces, and peers simultaneously download and upload different pieces. This distributes the load, leading to faster speeds, especially with many seeders.
- **Multiple Sources:** Instead of a single source, P2P allows downloading from multiple peers in parallel, accelerating the process.
- **Scalability:** P2P networks become more efficient with more users, as each new user can contribute upload bandwidth.
- **Redundancy:** The distributed nature provides redundancy; if one peer goes offline, others can still provide the missing pieces.

However, using a proxy server can diminish these advantages because:

- **Single Point of Routing:** All P2P traffic is routed through the proxy, creating a bottleneck if the proxy has limited resources or high traffic.
- **Increased Latency:** The proxy introduces an extra hop, adding latency, which is detrimental to the timely communication required for efficient P2P file transfer.
- **Bandwidth Restrictions:** Proxies often impose bandwidth limits, negatively impacting download and upload speeds.