 Give a compelling (technical) argument why the tit-for-tat policy as used in BitTorrent is far from optimal for file sharing in the Internet.

Step 1:

A desktop programme called BitTorrent Client starts, truncates, and controls data downloads and uploads utilising the BitTorrent file-sharing protocol. A desktop programme called BitTorrent Client starts, truncates, and controls data downloads and uploads utilising the BitTorrent file-sharing protocol.

Tit for tat is a game-theory tactic in which, after cooperating in the initial round, each player imitates the action of their opponent. In games involving repeating moves or a string of related games, tit for tat might be used.

Step 2:

The logic is fairly straightforward. The majority of BitTorrent clients run behind asymmetric lines like ADSL or cable modems. Clients typically have access to large amounts of inbound bandwidth, but nobody really expects them to provide any services. Unlike BitTorrent, which does not make this assumption, clients are turned into cooperative servers. So having symmetric connections makes the tit-for-tat approach much more compatible.