STARHUB offers much faster access to its 'partner websites'. Does this mean that the Internet Service Provider (ISP) is curbing the speeds at which I access non-partner sites?

There is probably nothing sinister here. As NUS economist Julian Wright explains, this most likely means that 'partner' content providers have paid for their sites to be hosted or mirrored locally for faster access here.

When asked, StarHub says it supports 'net neutrality' - the principle that ISPs should treat all data packets identically. That is, they should not favour websites that pay them to ensure quicker access.

ISPs have traditionally not given any particular data packet priority treatment. But technology now enables them to block or slow down specific data packets discreetly and discreetly.

StarHub could, hypothetically, charge Google so the search giant can access StarHub subscribers while blocking Yahoo. If content providers have to pay ISPs for surfers to view their websites, many website creators may refrain from jumping in to offer their content and services. Creativity on the Net would be stifled. Thus US, UK and Canadian activists are now asking their legislators to pass 'net neutrality' laws to prevent ISPs from doing this.

This debate has gathered steam. Last November, US presidential hopeful Barack Obama noted on MTV and MySpace that some lobbyists were pushing for laws to permit ISPs to discriminate against data traffic, which he opposed.

A month earlier, the Associated Press demonstrated convincingly that Comcast, a big US ISP, was interfering with traffic on BitTorrent. That peer-to-peer (P2P) network allows all Internet-connected computers to share the burden of storing and transferring huge files anonymously. These files, usually music and movies, gobble up bandwidth when they are being transferred, thus slowing down other traffic.

AP showed that if a BitTorrent user tried to share such files with another user, Comcast would use technology to pose as the other user to send an invisible message back to the first user telling it to stop communicating. The transfer would then break off. Comcast has now acknowledged it had been 'delaying' some data but not blocking them fully.

In the meantime, content providers such as Google, Yahoo, Microsoft, eBay and Amazon have been lobbying for a 'net neutrality' law. To stave this off, Comcast proposed this week new 'protocol-agnostic management' rules to treat all data equally. However, that may merely mean allowing all data packets to slow down equally when traffic reaches an unacceptable volume because of, say, BitTorrent traffic.
Comcast is not alone. In Canada, big ISPs like Rogers have allegedly been throttling traffic to fight the scourge of P2P file transfers clogging their systems. Apologists note that BitTorrent often involves pirated material or child porn, so choking its traffic does society a favour.

But BitTorrent is also used to share legitimate content from National Geographic or MTV, say. Useful files - such as X-rays and hospital charts or anything with a Creative Commons licence that restricts only certain rights (or none) unlike traditional restrictive copyrights - also use BitTorrent.

P2P traffic apart, ISPs have been known to degrade free Internet telephony traffic like Skype. In Canada, for example, Rogers sells its own Internet telephony service, which takes up bandwidth but doesn't get throttled. What all this boils down to is ISPs wanting to keep the pipes open for their own traffic so as to make money.

This week, Virgin's UK broadband service revealed it was talking to undisclosed websites to deliver their content to its 3.5 million subscribers faster. Websites that decline to play ball would be relegated to the 'bus lanes' on the Web, it said. The reason? Virgin is venturing into Internet Protocol Television (IPTV), so it wants to keep the lanes open for its TV content.

Thus, as ISPs expand their product lines to include content, they may throttle other traffic in favour of their own content. A SingTel offering 'triple play' service of voice, data services and video - especially high-definition video - over broadband could conceivably be tempted to favour its own content. When asked if it supported the principle of 'net neutrality', SingTel said it 'does not have a practice of releasing any customer information to content providers'.

Eager to fend off 'net neutrality' regulation, ISPs are now saying that market forces should be allowed to settle the issue. But it is unclear ex ante who would win or lose if ISPs do charge content providers to access their subscribers.

As Associate Professor Wright says, ISPs might compete furiously among themselves as a result to sign up subscribers, who therefore would enjoy lower broadband prices. But fewer creators may jump in to provide content if it is going to cost them a pretty penny to get eyeballs. Thus, it is unclear whether consumer welfare will be improved or hurt.

But then, content providers which do pay to access eyeballs will likely have more eyeballs. In fact, a large and popular content provider - say, a Google or iTunes - could even threaten to strike an exclusive deal with one ISP to the detriment of competing ISPs, says Prof Wright.

It is unclear if making content providers pay would boost ISP profits enough to make it worth risking the defection of subscribers angered by slow access to non-paying sites. Of course, right now, long-term contracts with harsh break clauses show the broadband market here isn't too competitive anyway. With just two main broadband platforms - cable (StarHub) or DSL (SingTel) - subscribers don't have too many switching options when their contracts end. (The slow WiFi platform means that M1 is not a major broadband player yet.)

Given the high costs of building, maintaining and upgrading their infrastructure, ISPs have every incentive not to enrage their subscribers. And if new technologies like WiMax or
Broadband-over-Powerlines enable multiple new ISPs to enter the broadband market cheaply, things could become very competitive indeed.

All these uncertainties may explain why not too many ISPs seem to want to do a Comcast. There is breathing space for policymakers and other experts to consider the various options instead of too precipitately imposing a one-size-fits-all net neutrality law, says Prof Wright.

Up to now, the Net has grown by leaps and bound despite the absence of such a law. Better perhaps to leave well alone.

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