Responsiveness

One of the most important user experiences in networking applications is the perception of *responsiveness.* If end-users feel that an application is slow, it is often the case that it is slow to respond to them, rather than being directly related to network speed. This is a particular issue for real-time applications such as audio/video conferencing systems and must be prioritised in applications such as remote medical services and off-campus teaching facilities. It can be difficult to quantitatively define an acceptable figure for response times as the requirements may vary from application to application.

However, some applications have relatively well-defined "physiological" bounds beyond which the responsiveness feeling vanishes. For example, for voice conversations, a (round-trip) delay of 150ms is practically unnoticeable, but an only slightly larger delay is typically felt as very intrusive.

In 2021, Christoph Paasch, Stuart Cheshire (Apple) and others have proposed an *RPM* (rounds per minute) metric for responsiveness under load as a simple yet meaningful responsiveness measure.

References

- Responsiveness under Working Conditions (draft-cpaasch-ippm-responsiveness-01.txt), C. Paasch, R. Meyer, S. Cheshire, O. Shapira, October 2021
- Test Wi-Fi networks with Apple Network Responsiveness, Apple Support knowledge base article HT212313, September 2021

– Simon Leinen – 2006-04-07–2021-10-26