

On the COVID-19 Impact to broadband traffic in Japan

A position paper for the COVID-19 Network Impacts Workshop, 2020

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I am a research director at IJ Research Lab in Japan. I have been working on traffic measurement for 15 years, and closely watching the traffic since the COVID-19 outbreak. Therefore, I would like to participate in the workshop and discussions. I can talk about IJ's broadband traffic and more broadly the situation in Japan.

I have an article reporting IJ's broadband traffic that can be summarized as follows. COVID-19 began spreading in Japan in mid February, which fueled a rapid shift toward remote work. Many people started working from home in early March after schools got closed nationwide on March 2. Initially, weekday traffic became just like weekend, probably simply because more people stayed home during daytime on weekdays. Then, in April, we observed a gradual increase of remote work traffic (e.g., video meetings) and entertainment traffic (e.g., movies), as users got their systems set up properly and became accustomed to the tools.

[1] Kenjiro Cho. "COVID-19's Impact on FLET'S Traffic".
Internet Infrastructure Review vol.47, pp18-23. July 2020.
https://www.ij.ad.jp/en/dev/iir/pdf/iir_vol47_focus2_EN.pdf

Although we were only able to take direct observations from IJ services, similar situations are reported from other ISPs in Japan. Also, I have been in charge of collecting traffic data from major ISPs in Japan twice a year since 2004. The latest report on May 2020 data shows a big change in aggregated traffic volumes due to COVID-19.

[2] Kenjiro Cho. "ISP Backbone Traffic in Japan".
<http://www.hongo.wide.ad.jp/InternetTraffic/data/>

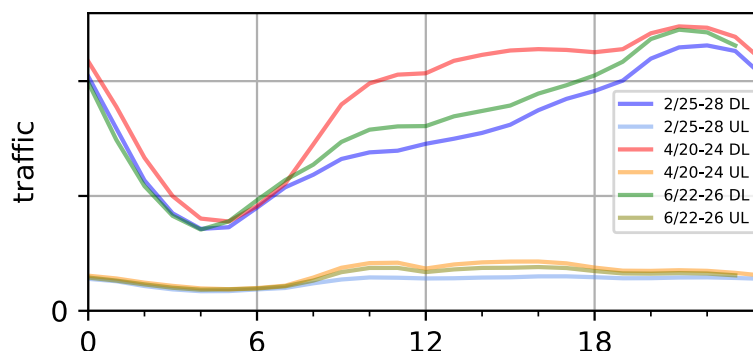


Fig. 1 Hourly weekday traffic volume of IJ broadband services: a significant increase of daytime traffic observed under the state-of-emergency (week of April 20-24), but didn't last after lifting the state-of-emergency (week of June 22-16).