UPDATE TRAFFICS in JAPAN

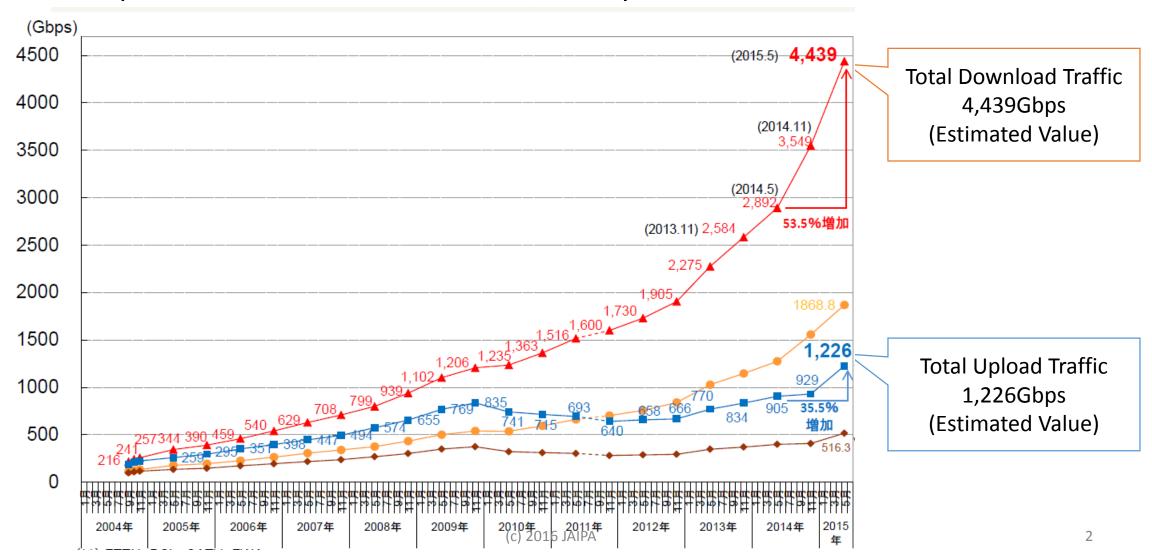
JAIPA: Japan Internet Service Providers

Vice Chair

Toshiaki Tateishi

Internet Traffic in JAPAN

- Total download traffic increased 53.5% over last year.
- Total upload traffic increased 35.5% over last year.

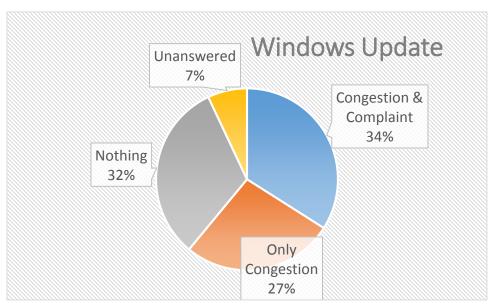


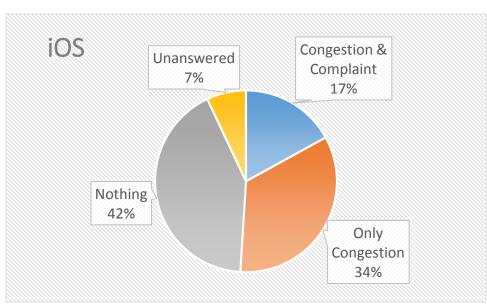
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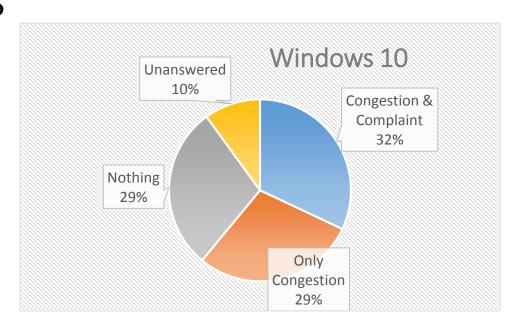
Japan Internet Service Providers Association

- Established in 2000
- Our member is more than 150 companies.
- More than 100 are ISPs.
 - Including big 10 ISPs NTT Communications, Biglobe, So-net, KDDI, Softbank...
 - Local small ISPs are still working
- Our member ISPs had many complaints about the slow network at the specific time from customer. So we detected the update traffic was so increasing.
- We tried to talk Microsoft Japan to make an improvement about this situation last summer (Windows10 Update) but...

The Questionnaire to ISPs



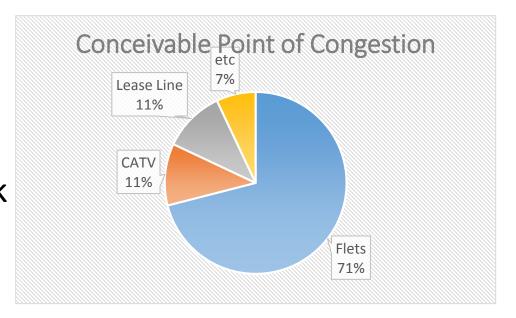


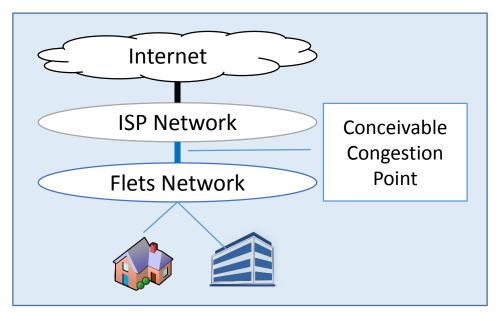


- In cases of Windows Update and Windows10, more than 60% ISP reported its congestion and half of them had complaints from customer.
- About iOS, the congestion was observed but no complaint.

Point of the congestion

- Many ISPs think the point is Flets Network which operated by NTT East & West.
- The network topology in Japan of the residential line are very different from other countries.
- But we think if the Flets problem is resolved, the next bottle neck point will come up.

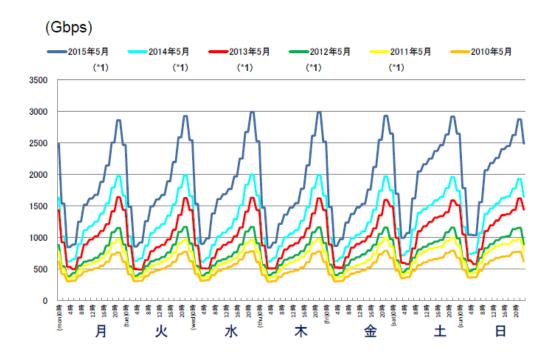




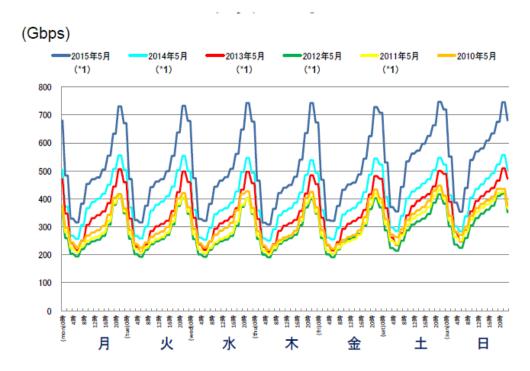
Down & Upload Traffic From Monday to Sunday

The traffic is still created by HUMAN activity.

Download Traffic



• Upload Traffic



The traffic will be increasing...

- Streaming Videos
- Monitoring Cameras
- Increasing IoT devices
 - Sometime they're hacked and to be attack machines.
- Increasing ICT information usages
- Careless software development and updates
 - (How many APPs updates everyday? !!)
- etc
- Can we stop the IoT (Internet of Things) devices traffic?
- What can we do before the disaster?

Thank you!

We will continue to survey this issue and share.

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