

Annex B

October 2014

FACTSHEET National Internet Measurement Infrastructure

The National Internet Measurement Infrastructure ("NIMI") monitors the performance of broadband plans in Singapore by crowdsourcing data on consumers' residential fixed broadband experience. Data from these measurement devices are collected monthly and published on the IDA website¹. This information is meant to help consumers make informed choices when deciding on a residential fixed broadband plan and enhance the overall experience of residential broadband service users.

Features of NIMI

(1) Crowdsourced Information on Residential Fixed Broadband Experience

At regular intervals, NIMI measurement devices conduct a series of tests against our test servers housed in local Internet Data Centres, USA east and west coast. These tests include:

- Average Peak Upload and Download Throughput this measures how much bandwidth is available to the connection between the measurement device and the test server based on multiple TCP connections². Measured in megabits per second (Mbps).
- <u>Latency</u> the time elapsed between sending a data packet to the test server to when the acknowledgement is received. This is measured in milliseconds (ms).
- <u>Packet loss</u> Data packets that are not received as a percentage of total data packets sent.

To minimise compromising the surfing experience of volunteers, the measurement devices are programmed to avoid running tests when it detects activity on the internet connection. This is also important in ensuring the accuracy of results. The device is able to detect activity on both wired and wireless traffic.

Where possible, IDA has tried to obtain data from all broadband service providers in Singapore – SingNet, StarHub, M1, SuperInternet, MyRepublic and Viewquest.

However, not all fixed broadband plans are included in the NIMI publication. Currently, IDA publishes plans that are 200 Mbps and below which represent the majority of the internet population in Singapore.

¹ Published data is available at http://www.ida.gov.sg/applications/rbs/chart.html.

² Transmission Control Protocol



IDA is constantly evaluating the ISP landscape in Singapore which includes monitoring the uptake of higher speed plans and will consider including these new plans where appropriate.

(2) Monthly Report Card on Internet Service Provider Performance

Volunteers receive a monthly report card on the performance of their internet service provider ("ISP") and online access to the specific test results which they contributed.

Participants

So far, more than 900 measurement devices have been installed in the households of volunteers under NIMI. Members of the public can sign up as a volunteer at www.samknows.com.sg.

Measurement devices will be provided to volunteers free of charge as long as they remain in the programme and volunteers can withdraw from the programme anytime.

For media queries, please contact:

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