

Associating Canadian ISPs with Anonymized Data Traffic Submissions for CRTC Interrogatory PN 2008-19

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Summary: This document draws together the CRTC's February 4, 11, and 12 filings. The intent is to associate names of ISPs with categories of anonymous data for easy reference, as well as to contextualize each data set by reproducing the questions that led ISPs to develop their non-anonymous datasets. Personal commentary has been left out of this document.

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Overview

On February 4, 2009 the CRTC requested that various ISPs associated with the proceeding file datasets concerning their data traffic statistics to the CRTC. The CRTC would subsequently aggregate/anonymize them. This document draws together which ISPs were required to file information for particular responses, the responses the CRTC disclosed February 11th and 12th, and the questions that these responses are to. It must be noted that companies did not necessarily use the same time periods, or the same methodology, for calculating the information provided in the tables below.

Network Traffic Characteristics

Q.1 - With respect to the networks¹ your company uses to provide broadband Internet services²:

a) Describe in detail how traffic volume on these networks has changed from 2006 to 2008. Provide specific traffic data by month for each year.

_____ (CRTC)04Dec2008-1(a)

Years	Annual % growth of total traffic volume		
	2005-2006	2006-2007	2007-2008
Company A	59	33	28
Company B	56	45	27
Company C	54	46	47
Company D	66	57	21
Company E	28	32	45
Company F	56	49	28
Company G	52	43	35

ISPs requested to submit data: Barrett, Bell Canada et al., Bragg, Cogeco, MTS Allstream, QMI (Videotron), Rogers, Sasktel, Shaw, Telus.

¹ If your company operates more than one network (such as a wireless network and a fixed network), questions are to be answered for each network used to deliver broadband Internet services.

² For the purposes of this proceeding, the Commission is considering the term 'broadband Internet services' to refer to any Internet access services not offered over a dial-up connection.

b) For the traffic on these networks, provide the percent composition of various types of Internet traffic (e.g. HTTP, P2P, UDP, etc.) for each year from 2006 to 2008 by month.

_____ (CRTC)04Dec2008-1(b)

	Period	% HTTP/ Streaming Traffic	% P2P Traffic	% UDP Traffic	% Other Traffic
Company A	First Month	29	45	4	22
	Middle Month	29	46	4	21
	Last Month	31	47	5	17
Company B	First Month	50	34	4	11
	Middle Month	54	31	4	11
	Last Month	59	32	5	4
Company C	First Month	39	28	-	34
	Middle Month	46	21	-	33
	Last Month	48	23	3	25
Company D	First Month	28	34	-	37
	Middle Month	29	51	-	19
	Last Month	32	43	-	25

ISPs requested to submit data: Barrett, Bell Canada et al. (for Bell Wireline), Bragg, Rogers, and Shaw.

Network Traffic Characteristics

Q.2 - With respect to the Internet traffic currently consumed by end-users of your broadband Internet service(s):

a) What is the monthly average usage per end-user in Gigabytes (Gb) by month for each year from 2006 to 2008? Provide a breakdown of the upstream and downstream traffic usage separately.

_____ (CRTC)04Dec2008-2(a)

Years	Annual % growth of the monthly average usage per end-user		
	2005-2006	2006-2007	2007-2008
Company A	16	47	13
Company B	40	14	9
Company C	-6	35	31
Company D	23	18	10

ISPs requested to submit data: Barrett, Bell Canada et al. (for Bell Wireline), Cogeco, MTS Allstream, QMI (Videotron), Rogers, and Telus.

b) What is the monthly average usage for the top i) 5% and ii) 10% of end-users consuming the greatest amount of Internet traffic on your networks in Gb by month for each year from 2006 to 2008? Provide a breakdown of the upstream and downstream traffic usage separately.

_____ (CRTC)04Dec2008-2(b)

Years	Annual % growth of the monthly average usage for the top 5% end-users			Annual % growth of the monthly average usage for the top 10% end-users		
	2005-06	2006-07	2007-08	2005-06	2006-07	2007-08
Company A	28	7	-4	31	10	-1
Company B	10	-1	2	-3	11	1
Company C	2	30	-7	5	34	-2
Company D	-13	24	25	-11	26	25

ISPs requested to submit data: Bell Canada et al. (for Bell Wireline), Cogeco, MTS Allstream, QMI (Videotron), Rogers, and Telus.

c) What proportion of the total traffic on your networks do each of the two end-user categories identified in (b) above represent?

(CRTC)04Dec2008-2(c)

	Period	Percentage of total traffic attributable to the top 5% end-users	Percentage of total traffic attributable to the top 10% end-users
Company A	First Month	51	68
	Middle Month	50	67
	Last Month	45	61
Company B	First Month	37	71
	Middle Month	42	64
	Last Month	52	78
Company C	First Month	42	56
	Middle Month	41	56
	Last Month	34	53
Company D	First Month	44	60
	Middle Month	44	60
	Last Month	37	52
Company E	First Month	54	72
	Middle Month	50	68
	Last Month	45	62
Company F	First Month	56	72
	Middle Month	47	63
	Last Month	37	53
Company G	First Month	45	63
	Middle Month	43	60
	Last Month	41	59
Company H	First Month	60	73
	Middle Month	63	76
	Last Month	56	74
Company I	First Month	53	73
	Middle Month	54	73
	Last Month	54	68
Company J	First Month	49	65
	Middle Month	48	64
	Last Month	42	57

ISPs requested to submit data: Barrett, Bell Canada et al. (for Bell Wireline), Bragg, Cogeco, MTS Allstream, Primus, QMI (Videotron), Rogers, Shaw, and Telus.

d) What applications do each of the two end-user categories identified in (b) above utilize that contribute most to their usage? For these applications, specify the percent composition of the total usage for each of the two end-user categories in (b).

_____ (CRTC)04Dec2008-2(d)

Top 5% End-Users

	Period	% HTTP/ Streaming Traffic	% P2P Traffic	% UDP Traffic	% Other Traffic
Company A	First Month	18	66	-	16
	Middle Month	16	64	-	19
	Last Month	18	58	-	25
Company B	First Month	31	52	4	13
	Middle Month	33	48	6	13
	Last Month	34	56	6	4
Company C	First Month	14	57	4	25
	Middle Month	15	58	4	23
	Last Month	16	58	5	19

Top 10% End-Users

	Period	% HTTP/ Streaming Traffic	% P2P Traffic	% UDP Traffic	% Other Traffic
Company A	First Month	37	46	4	12
	Middle Month	40	43	5	12
	Last Month	41	49	6	4
Company B	First Month	17	56	4	24
	Middle Month	17	57	4	22
	Last Month	19	58	5	18
Company C	First Month	20	62	-	18
	Middle Month	20	61	-	19
	Last Month	21	54	-	26

ISPs required to file: Bell Canada et al. (for Bell Wireline), Bragg, and Shaw.