

Summary of Requests for Disclosure in Response to ISP Filings for CRTC Interrogatory PN 2008-19

*Prepared by Christopher Parsons**

Summary: This document collects the requests for further disclosure from the Public Interest Advocacy Centre (PAIC), Canadian Film and Television Production Association (CFTPA), Canadian Association of Internet Providers (CAIP), the Campaign for Democratic Media (CDM), and comments from the Canadian Association of the Deaf (CAD). Comments from l'Union des consommateurs have not been included, given language barriers. Personal thoughts and comments have been left out of this document, as have personal analyses of the arguments that the aforementioned groups offer in requesting confidential information. When references are made, they to the requests for public disclosure and comments that were released by these advocacy groups pertaining of PN 2008-19.

* Doctoral student in the University of Victoria's Political Science department.

Table of Contents

Summaries of Requests for Disclosure	2
Comments of the Canadian Association of the Deaf	2
Public Interest Advocate Center (PIAC)	2
Canadian Film and Television Production Association (CFTPA)	2
Canadian Association of Internet Providers (CAIP)	2
Campaign for Democratic Media (CDM)	3
Question 1	3
Question 2	5
Question 3	7
Question 4	8
Question 5	8
Question 6	9
Question 7	10
Question 8	10
Question 9	12
Question 10	13
CDM	13
CFTPA	13
Questions 11-15	14
CDM	14

Introduction

Given that different advocacy groups submitted their comments in different forms, this document first summarizes how each group frames their requests for further disclosure, and any points that do not easily fit into one of the PN's interrogatories. This is done in point form. Following this, I provide a set of tables that summarize advocates' requests, as they pertain to particular questions asked by the Commission. Each of these tables includes the Commission's questions, but to read summaries on ISP summaries you are directed to the summary prepared for that phase of the interrogatories.¹

¹ [http://www.christopher-parsons.com/PublicUpload/Summary_of_January_13_2009_ISP_filings_\(for_web\).pdf](http://www.christopher-parsons.com/PublicUpload/Summary_of_January_13_2009_ISP_filings_(for_web).pdf)

Summaries of Requests for Disclosure

Comments of the Canadian Association of the Deaf

- Canadian Association of the Deaf (CAD) is the oldest national disabled consumers organization in the country, and is submitting on behalf of: CAD, Sign Relay Canada – Service de Relais Canada, and the Canadian Cultural Society of the Deaf
- The individuals CAD represents encompass nearly 10% of the Canadian population.
- Beyond the deaf themselves, their families and friends are also affected by this communication barrier.
- Deaf users will likely be above-average broadband users, and use relay service providers when engaging in video chats.
- “A disability lens must be applied to any and all traffic management proposals to make sure unintended consequences n Deaf or other people with disabilities do not impact the communities negatively” (2).

Public Interest Advocate Center (PIAC)

- Given the relative lack of competition between Rogers and Bell Canada/Aliant Atlantic in the broadband market, the filings in confidence should be made public. These companies’ status and size in the market suggests that any disclosures will have limited impact on the competitiveness in the marketplace, and any such harm is outweighed by the public value of these disclosures
- In the case of Bell in particular, given their domineering status as a wholesaler of Internet link access, it is unlikely that the harm will outweigh the public good of making these responses public.
- TELUS has demonstrated their willingness to disclose information that both Rogers and Bell have identified as confidential – this suggests that the information is unlikely to be as sensitive as the aforementioned two companies suggest.
- Without having a great deal more information on the public record, it will be impossible for Consumer Groups and members of the public to participate in the Commission’s public notice by providing substantive commentary. Situating Public Groups and members of the public in this way would undermine the aim and intents of the Commission’s Public Notice.

Canadian Film and Television Production Association (CFTPA)

- In light of the lack of meaningful competition in the Canadian broadband market in the retail and wholesale services market (specific data provided on pages 1 and 2) risks of harming competitiveness as a result of disclosing currently confidential documents are outweighed by the public interest in disclosure.
- Claims for confidentiality have been filed in general by many ISPs, which fail to justify these claims. These claims provide little or no rationale as to why the disclosure would constitute a harm, and are consequently insufficient reasons for maintaining confidentiality.
- In order to answer the primary interrogatories addressed in the initial Public Notice, it is necessary for the ISPs to make public their responses to the Commissions questions.

Canadian Association of Internet Providers (CAIP)

- Concerned about amount of information that was filed in confidence.
- CAIP suggests that even the most general of information have been filed in

- confidence by the incumbent ISPs.
- Only TELUS has made a reasonable effort to place the majority of requested information on the record.
- Given that respondents appear to be in conflict over what constitutes information that should be filed in confidence, all information filed in confidence should now be placed on the public record
- The benefits of public disclosure outweigh any harm(s) to business in filing documents publicly.
- Full disclosure is required for the public notice to be public – complete context that would be provided by full disclosure is needed so that individuals and groups outside of the Commission itself can fully comment on traffic management practices.

Campaign for Democratic Media (CDM)

- ISPs have not provided sufficient justification for withholding notice, and instead only offered general statements of harm.
- There are no direct reasons for why disclosure of information will result in specific and direct harm.
- Public disclosure is necessary to answer the Commission’s questions, and based on this the disclosing of information outweighs any potential specific harm that would result from disclosure. Given that the CRTC proceeding will establish national policy, that the issues are cutting edge, and that few jurisdictions are regulated in the manners being examined by the Commission, the eyes of the world are upon this Public Notice.

Question 1

With respect to the networks your company uses to provide broadband Internet services

- Describe in detail how traffic volume on these networks has changed from 2006 to 2008. Provide specific traffic data by month for each year.
- 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.
- What is your definition of peak period(s) on these networks? Has this peak period changed in the years from 2006 to 2008? If so, describe this change.
- Provide a forecast indicating how you expect the traffic volumes on your networks to change in the years from 2009 to 2011. Your answer should include a discussion as to why these changes are forecasted

PIAC	<p>Rogers</p> <p>The statistical information that is being requested is needed in order for public comments to be effective – failure to provide it will limit comments to being largely theoretical, and thus limit public groups’ ability to form responses to the Commission’s questions. In the case of Rogers, it is essential that they release projected traffic growth numbers for consumer groups to identify whether traffic management technologies are required. Further, while the Commission has not requested that Rogers provide information about the increases in speed provided to consumers, this historical information along with trend projections for future speed increases will assist advocacy groups examine “the impact of planned network access speed or capacity upgrades on the estimated traffic” (3). It is central that Rogers is forthcoming about the supposed harm generated by</p>
-------------	---

	<p>network congestion in order to gauge the actual harms manifest from congestion.</p> <p>This information should be released, on the basis that:</p> <ol style="list-style-type: none"> (1) It is necessary for consumer groups and the public to participate in the proceeding; (2) Rogers holds a monopoly or duopoly in many markets, which indicates that there is very little danger that released information will limit or undermine Rogers' ability to compete in the market; (3) TELUS has been forthcoming in their responses to the Commission's interrogatories, which demonstrates that TELUS does not think that there is "real prospect of competitive harm in releasing these figures" (5). (4) Without figures comparable to TELUS', it is impossible for consumer groups and members of the public from identifying why some ISPs are stating that traffic filtering is required for business, whereas others are not. <p>Bell Canada/Bell Aliant</p> <p>The statistical information that is being sought is critical in understanding and assessing Bell Canada's (and other ISPs') throttling of peer-to-peer filesharing applications. Similar to Rogers, it is important to have Bell's traffic trends for 2006-2008 to comment on Bell's claim that there has been an 'exponential' growth of Internet traffic. This information would be particularly useful in evaluating whether traffic shaping has had an appreciable effect on Bell Canada's traffic flows. Moreover, having access to growth projections would assist consumer groups and members of the public evaluate the legitimacy and possible scope of throttling traffic. This would help to understand whether future traffic growth 'requires' traffic management technologies.</p> <p>Concerning congestion. CAIP offer similar arguments for disclosure of information as they do when examining Rogers. CAIP notes that "since claimed network congestion, the extent and cause of it are all central to the determination of this questions...Bell Canada must be very specific indeed in identifying the supposed harm that may accrue upon the public disclosure of this information" (4). Bell must provide detailed, segregated, traffic statistics so that the consumer groups and public can evaluate the legitimacy of Bell's claims and determine if there is congestion, and if so whether it can be foreseen and managed in a way that does not target particular users or applications.</p> <p>Given Bell's relative strength in the competitive market, CAIP submits that competitive harms are outweighed by the public good. This is especially true in light of Bell's near-monopoly Internet wholesale provider. In light of their status as a near-monopoly, the Commission should accord little weight to Bell's claims of fearing competitive weakness based on revealing data traffic information.</p> <p>Moreover, TELUS has provided information in public, which suggests that the data that Bell is providing in confidence is not as damaging as has been suggested. It is important to have a range of public disclosures to understand techniques of managing and recognizing congestion, so that an informed set of comments can be provided to the Commission.</p>
CAIP	A comparison of current capacity and growth plans could be seen as competitive

	in nature, but those incumbents that are publicly owned are already involved in publicly releasing growth and expansion information in news releases and quarterly/annual reports. CAIP is curious as to how historical information surrounding the change in traffic volumes or consumer consumption could be considered competitively sensitive.
CDM	CDM is willing to have the Commission aggregate all traffic data, so that only a broad picture is provided, given that this “would at least allow opposing parties to address some of the questions raised in the PN to a certain extent” (4). It is impossible to argue for, or against, the notion that P2P traffic uses a disproportionate amount of available bandwidth without the composition of data traffic, and the historical and forecast use of bandwidth by users. It is essential to have peak periods identified, and justifications for those periods, in order to understand that arbitrariness or effectiveness of limiting traffic management practices to particular periods. Information of this sort will assist in responses to the Commission’s question about alternate modes of managing traffic. Finally, future growth predictions are required in order to understand congestion in light of both past and future projected traffic growths.
CFTPA	Without information on the volume of data growth experienced on ISPs’ networks, as well as the composition of such data, interveners cannot meaningfully assess and comment on whether the Internet management practices adopted by ISPs are appropriate and proportional to the problem of congestion. Given that TELUS has been forthcoming with this information, it is “clear that little or no specific harm results from its public disclosure” (3). While in the earlier proceeding filed by CAIP against Bell recognized that there were real market reasons for keeping much of this data in confidence, given that this interrogatory is addressed to all incumbent ISPs there is a substantial reduction of possible harm being realized by any particular ISP. Finally, given that traffic management practices have arisen to address issues related to traffic volumes, it is essential that historical and forecast data be released to evaluate the traffic management practices that may be adopted on a going-forward basis.

Question 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.
- 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.
- c) What proportion of the total traffic on your networks do each of the two end-user categories identified in (b) above represent?
- 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).
- e) Provide a forecast indicating how you expect the monthly average usage per end-user (in

Gb) to change in the years from 2009 to 2011.

<p>PIAC</p>	<p>Rogers Similar to their response to question one, PAIC argues that in order for public advocacy groups and members of the public to engage with this issue, they require hard numbers from Rogers. It is noted that TELUS did provide information, and that Rogers holds a strong competitive position – any disadvantage to that position brought about by disclosing information is justified by the value of such disclosure to the public for this proceeding. Finally, without numerical data for question 2(b)-(d), “it is impossible for there to be any probing analysis of the heard of this Public Notice, which is whether Rogers’ chosen network management actions are indeed reasonable, necessary and permitted under the <i>Telecommunications Act</i>” (7).</p> <p>Bell Canada/Bell Aliant Atlantic Again, CAIP questions the degree of relative competitive harm that would occur from Bell releasing this data to the public. TELUS has demonstrated that they do not believe that releasing this data will endanger their competitiveness in the market (save for data on projected growth). Given Bell’s present methods of managing data traffic, it is especially important that they are forthcoming with their responses so that PAIC and members of the public can provide the Commission with comments.</p>
<p>CAIP</p>	<p>Historical trends are essential for understanding the possible need for various traffic management policies and practices. As such, this information should be made public in order for the public to evaluate the validity of such existing, and proposed, policies and practices.</p>
<p>CDM</p>	<p>What percentage of traffic is consumed by P2P traffic? What can be attributed to other forms of traffic? When identifying a peak period, what measures are used to calculate this? What current, and future, information about top 5% and 10% of users do the ISPs hold?</p> <p>Where some ISPs have noted that P2P traffic has “derogatory effects of up as opposed to down traffic in formulating their arguments against P2P applications” it is necessary to have a breakdown of changes in trends of up and down traffic to meet arguments surrounding the impacts of P2P applications. Without detailed data, “it is difficult if not altogether impossible to argue that P2P applications do no in fact make disproportionate use of the network without data on the composition of traffic” (4). Information about the top 5% and 10% of users is essential to challenge that assertion that P2P applications are responsible for a significant portion of traffic and thus merit throttling practices.</p>
<p>CFTPA</p>	<p>Given that both Bell and TELUS have released at least some of the data responding to this question in public, there can be no reason why other ISPs should not do so as well. Further, since data is aggregated (rather than being geographically segregated) there can be “little risk that specific direct harm would result to the incumbent ISPs by virtue of the disclosure of such information” (5). Without data for this question, no party other than an</p>

² “How has average end-user bandwidth consumption changed in the past three years and what

	incumbent ISP could answer the Commission's questions 1(b) ² and (d) ³ in anything but theoretical ways.
--	--

Question 3

How do you define congestion in the networks your company uses to provide broadband Internet services? What criteria and measurements are used to determine that there is congestion in your networks? If you provide both retail and wholesale services, provide any differences in how you define congestion for each.

PIAC	<p>Rogers PAIC is satisfied that the answers provided do not rely on confidential numbers to answer the question.</p> <p>Bell Canada/Bell Aliant Again, PAIC argues that Bell must file this data in public, so that consumer groups and members of the public can provide comments to the Commission. PAIC also notes that "the question posed by the Commission did not require the Companies to provide the Commission with link utilization criteria and actual figures, yet claimed the figures are confidential, the Consumer Groups submit that these figures should be placed on the public record for the other parties to test the Companies' claims of congestion requiring strategies such as throttling particular applications" (8).</p>
CAIP	
CDM	<p>Opposing parties must be able to assess and challenge the level of degradation of service end-users may experience on a given network before an ISP holds that a deterioration of service has occurred. Thresholds set by ISPs must be identified to challenge how they are defined and implemented. Without such data, parties will be challenged to provide sufficient evidence or utility of alternate solutions to traffic management because they will not be aware of the challenges that need to be met by alternative measures. Information about provisioning practices are needed in order for opposing parties to make meaningful arguments about current provisioning systems and suggest alternate solutions. Without current threshold and utilization information that lead to provision, it is challenging to argue that these levels should be altered.</p>
CFTP	<p>None of the parties have provided to the public record specific criteria that they use to identify when a network, or network cross-section, is congested. Specific criteria must be submitted in order to understand what is classified as 'congestion' by the ISPs. Further, much of this information was provided by Bell during the proceeding brought to the CRTC by CAIP and thus ISPs should be required to similarly provide this information in this proceeding. Without more specific responses to this question on the public record, it is impossible for any but the incumbant ISPs to provide practical answers to</p>

are the predictions for future changes in Canada?"

³ How has Internet traffic grown in the past three years and what are the predictions for its growth in the future? What has been the impact on Canadian ISP networks?

	the Commission's question 1(c). ⁴
--	--

Question 4

Have your congestion criteria changed between 2006 and 2008? If so, explain how they have changed.

PIAC	Bell Canada/Bell Aliant Prior to 2007, Bell did not have specific congestion criteria, and implemented them in January 2007. Data was filed in confidence for the period of January to 2008. In claiming that the January 2007 information is confidential, without earlier criteria to test this measure of evaluation against, Bell is being permitted "with their answer as structured, to offer the Commission untested evidence to the Commission in support of their position under the guise of confidentiality" (9). As a result, this data ought to be released to the public.
CAIP	
CDM	Opposing parties must be able to assess and challenge the level of degradation of service end-users may experience on a given network before an ISP holds that a deterioration of service has occurred. Thresholds set by ISPs must be identified to challenge how they are defined and implemented. Without such data, parties will be challenged to provide sufficient evidence or utility of alternate solutions to traffic management because they will not be aware of the challenges that need to be met by alternative measures. Information about provisioning practices are needed in order for opposing parties to make meaningful arguments about current provisioning systems and suggest alternate solutions. Without current threshold and utilization information that lead to provision, it is challenging to argue that these levels should be altered.
CFTP	Where the criteria has changed, ISPs should be required to place on the public record all the information that was included in response to question 3. "Such information includes the specific, quantitatively-based criteria ... that determine whether a network or cross-section of a network has been deemed by an ISP to be congested..." (7).

Question 5

Describe which components (e.g. network elements or links) of your networks, used to provide broadband Internet services, are provisioned based on Internet traffic volumes. The discussion should include a general description of the architecture of your networks.

PIAC	Bell Canada/Aliant No issues with this response, as filed.
CAIP	

⁴ "How should congestion be defined in an ISP's network?"

<i>CDM</i>	Opposing parties must be able to assess and challenge the level of degradation of service end-users may experience on a given network before an ISP holds that a deterioration of service has occurred. Thresholds set by ISPs must be identified to challenge how they are defined and implemented. Without such data, parties will be challenged to provide sufficient evidence or utility of alternate solutions to traffic management because they will not be aware of the challenges that need to be met by alternative measures. Information about provisioning practices are needed in order for opposing parties to make meaningful arguments about current provisioning systems and suggest alternate solutions. Without current threshold and utilization information that lead to provision, it is challenging to argue that these levels should be altered.
<i>CFTP</i>	Given that Bell was forthcoming with a detailed networking diagram, so should other ISPs be required to similarly give clear pictures of their networks. In filing only general components of the network, interested parties are unable to adequately respond to the interrogatory – they will be unable to “meaningfully comment on whether the network components that are currently used by ISPs ...are adequate, or whether the use of other network components would reduce or mitigate the need to engage in traffic management practices by ISPs” (7).

Question 6

For each component identified in (5), describe the practices that you employ to provision your networks. Your answer should include a description of the conditions under which your company would augment its network capacities to address congestion. Describe in detail the process used to identify when and where additional network capacity is required and how the additional capacity requirements are determined.

<i>PIAC</i>	Bell Canada/Aliant This information should be released in public, on the basis that its disclosure is needed for consumer groups and members of the public to provide comments to the Commission. Further, PAIC argues that the value in disclosing this information publicly outweighs the private motivations for keeping this data confidential. Data on provisioning is needed in order to evaluate the needs and uses of throttling technologies. Of note, PAIC states that “The Consumer Groups submit that the Companies [Bell Canada/Aliant Atlantic] cannot have their cake and eat their cake. Either procedurally the Commission should disregard the proffered provisioning criteria or require the Companies to place their criteria information in this interrogatory on the public record” (10).
<i>CAIP</i>	
<i>CDM</i>	Opposing parties must be able to assess and challenge the level of degradation of service end-users may experience on a given network before an ISP holds that a deterioration of service has occurred. Thresholds set by ISPs must be identified to challenge how they are defined and implemented. Without such data, parties will be challenged to provide sufficient evidence

	or utility of alternate solutions to traffic management because they will not be aware of the challenges that need to be met by alternative measures. Information about provisioning practices are needed for opposing parties to make meaningful arguments about current provisioning systems and suggest alternate solutions. Without current threshold and utilization information that lead to provision, it is challenging to argue that these levels should be altered.
CFTP	None of the parties have provided specific quantitative thresholds or criteria used to determine when an upgrade of the network is necessary – this information is required so that all parties can meaningfully comment on the provisioning process. Given that the risks and benefits of this information is similar to that of those related to “link congestion thresholds” and “link congestion criterion”, and the Commission directed Bell to place this information on the record in the filing brought by CAIP, ISPs in this proceeding should be required to respond to this question in the public.

Question 7

Describe any major changes to your provisioning practices for the years 2006 to 2008. The response should include details on any changes in provisioning assumptions.

PIAC	Bell Canada/Aliant Bell must place their response to question 6 on the public record for this response to hold meaning.
CAIP	
CDM	Opposing parties must be able to assess and challenge the level of degradation of service end-users may experience on a given network before an ISP holds that a deterioration of service has occurred. Thresholds set by ISPs must be identified to challenge how they are defined and implemented. Without such data, parties will be challenged to provide sufficient evidence or utility of alternate solutions to traffic management because they will not be aware of the challenges that need to be met by alternative measures. Information about provisioning practices are needed for opposing parties to make meaningful arguments about current provisioning systems and suggest alternate solutions. Without current threshold and utilization information that lead to provision, it is challenging to argue that these levels should be altered.
CFTP	Where provisioning practices have changed, the ISP should be required to provide responses that are on the public record, as well as a detailed explanation of those past practices cross-referenced with specific relevant criteria so that it is clear why the ISP changed their practices.

Question 8

If you utilize Internet traffic management technologies, such as deep packet inspection:

a) Identify the technologies that you use. Your answer should include the specific equipment that you are using by vendor and product name.

- b) Explain why you chose to employ these Internet traffic management technologies. The response should address what conditions led you to implement these technologies and why you could not rely on non- technological solutions (e.g. provisioning practices).
- c) Describe in detail how the implemented technologies carry out traffic management. The response should include:
- i. whether management is carried out at specific times of the day. If so, specify the times of day.
 - ii. whether management is carried out on specific end-users. If so, specify how you determine which end-users are included and why.
 - iii. whether management is carried out only under certain network conditions (e.g. congested states). If so, specify what those conditions are.
 - iv. whether management is carried out only on certain applications. If so, specify which applications are included, as well as why these applications have been chosen.
 - v. whether the technology processes packet information. If so, specify what information is inspected (such as the header or payload).
 - vi. whether any information is stored and retained. If so, specify for how long and for what purpose it is retained.
- d) Provide details on the effects that your Internet traffic management technologies have on end-user Internet bandwidth (e.g. provide specific changes in upload and download speed in kbps).
- e) Has there been a change in average end-user monthly usage since implementing Internet traffic management technologies ? If so, by what amount did the average upstream and downstream usage change (in Gb per month)?
- f) Are your Internet traffic management technologies used on both wholesale and retail customers? If yes, are there any differences in how the traffic of these customers is managed?
- g) Can the Internet traffic management technologies that you employ be applied:
- i. to specific end-users?
 - ii. at specific times of day?
 - iii. in response to specific network conditions (e.g. congested states)?
 - iv. to specific locations in your networks?
 - v. to specific applications?
- If so, explain how this could be done in each case.

PIAC	<p>Rogers Once again, this information must be disclosed in order for consumer groups and members of the public to transparently engage with this interrogatory. The disclosure of the DPI technologies used is essential to be on the public record; such disclosure would (as an example) reveal whether or not the technologies allows for the forging of packets. To determine the veracity of Rogers’ claims, it is essential to know the product used to manage traffic, and how it inspects packets. This is key evidence for this interrogatory. Finally, it is essential for Rogers to provide data concerning the “success” of DPI throttling for the public and other parties to determine the merit of Rogers’ claims.</p> <p>Bell Canada/Aliant Atlantic This data has been filed in confidence, which hinders any evaluation(s) of the technologies. Moreover, given that BCE’s venture capital arm recently heavily invested in Ellacoya (which is public), it is reasonable to assume that</p>
-------------	--

	Ellacoya devices are used to manage Bell’s networks, and other BCE companies. In light of this, the Commission should require Bell to disclose information about their vendor and product(s).
CAIP	
CDM	The overriding factor is that ISPs have withheld so much information that a meaningful, and full, answer to the PN is extremely challenging. Examples: (1) difficult to provide relative feasibility and utility of alternate provisioning methods – vendor and product information of DPI equipment is essential to understand their impacts on user bandwidth use; (2) it is impossible to provide evidence of the impact and merit of DPI equipment on individuals’ privacy without technical details being provided – how invasive are the technologies? Do they avoid capturing personal information?
CFTP	The manner in which data packets are managed is partly a function of the technology that is responsible for handling data traffic and, as a result, a meaningful review of management practices demands that responses to question 8 be put on the public record. This disclosure would allow for empirical verification if ISPs’ claims with respect to how they manage Internet traffic, given that claims could be tested against the capacities of the relevant technical equipment. Without disclosure of this information, third parties cannot meaningfully comment as to whether a given practice is consistent with the <i>Telecommunications Act</i> or not.

Question 9

If you utilize Internet traffic management practices as alternatives or in addition to the technology-based practices identified in Question 8 above, such as monthly bandwidth capacity limits, excess bandwidth usage charges, network upgrades, time of day pricing, content caching etc.:

- a) Identify the practices that you use.
- b) For each practice that you use, explain why you chose to use it. The response should address what conditions led you to implement this practice and why you could not rely on existing provisioning practices.
- c) Describe in detail how the implemented practices assist in traffic management. The response should include a discussion on how they are used, when they are used, and where they are used.
- d) Provide details on the effects that these Internet traffic management practices have on end-user Internet bandwidth (e.g. provide specific changes in upload and download speed in kbps).
- e) Has there been a change in average end-user monthly usage since implementing Internet traffic management practices? If so, by what amount did the average upstream and downstream usage change (in Gb per month)?
- f) Are these traffic management practices used on both wholesale and retail customers? If yes, are there any differences in how the traffic of these customers is managed?

PIAC	Rogers The value of knowing how much has been invested in the network is critical to understand the data concerning bandwidth increases and present and
-------------	---

	<p>projected capacities. Rogers has filed the average anticipated increase in customer usage in confidence, making it challenging to identify the relative (projected) “success” do packet filtering.</p> <p>Bell Canada/Aliant Atlantic Given Bell’s status in the market, any harms they would face from releasing this information is outweighed by the public good of such disclosure. The release of pricing models should be revealed to understand the extent of the challenge the Bell faces in migrating its membership to pay-per-use plans, and “hence to know if the Companies [Bell Canada/Aliant Atlantic] are using DPI and similar technologies in place of a migration plan to move these customers to service plans that might discourage high bandwidth use by certain customers” (15).</p>
CAIP	
CDM	<p>ISPs were unable to point to direct harms that would arise from disclosure, which both limits public inquiry into this matter, and will situate comments to the Commission in the area of theory. Full disclosure will allow commenters to provide meaningful comments to the Commission.</p>
CFTPA	<p>CFTPA is asking for the following information to be disclosed:</p> <ol style="list-style-type: none"> (1) public disclosure of monthly usages allowances and bandwidth caps, given that this information can often already be found on corporate websites. Since the Commission is investigating alternate management systems, without information surrounding allowances and caps parties to the proceeding will be reliant on the general statements made by ISPs concerning their effectiveness. (2) AUP/Abuse management practices; thresholds for what constitutes and ‘abusive’ customer must be disclosed in order to determine the effect of this on capacity allocation and congestion (3) Capacity Upgrades; the amount of capital investment and the percentage of gross ISP revenues that are dedicated to network upgrades are relevant to the discussions surrounding traffic management, and thus should be disclosed to the public record

Question 10

With reference to Internet traffic management practices discussed in Questions 8 and 9, does your company plan to implement new capabilities for these practices? Your response should include details about the availability of any upgrades to the capabilities of the technologies being employed as well as the rationale for introducing new capabilities.

CDM

Reiterates that ISPs were unable to point to direct harms that would arise from disclosure, which both limits public inquiry into this matter, and will situate comments to the Commission in the area of theory. Full disclosure will allow participants to provide meaningful comments to the Commission.

CFTPA

Plans for future capacities are essential to understand the needs for traffic management

practices. CFTPA reiterates that public value of disclosure outweighs potential competitive harm, and that given the relative sizes and challenges for market entry that there is actually little potential harm in disclosing information. Without full public disclosure, interested members and groups of the public will be limited to providing theoretical responses to the Commission's comments.

Questions 11-15

CDM

Reiterates that ISPs were unable to point to direct harms that would arise from disclosure, which both limits public inquiry into this matter, and will situate comments to the Commission in the area of theory. Full disclosure will allow participants to provide meaningful comments to the Commission.