July 20, 2015

Mr. John Traversy
Secretary General
Canadian Radio-television and
Telecommunications Commission
Ottawa, Ontario
K1A 0N2

Dear Mr. Traversy:

Re. Telecom Notice of Consultation CRTC 2015-225
(the "Notice")

1. VMedia Inc.("VMedia") is filing this initial submission, in response to the Notice, with both hope and trepidation. Hope, because a dramatically improved framework is essential to ensure the future of the independent internet service provider("IISP") segment of the internet service market, and with it competition in the provision of those absolutely essential services to Canadians, and trepidation because past amendments to the framework have unfortunately gotten us to this place where IISPs, and the real competition that will generate optimal innovation and affordable prices that Canadians deserve, face such a tenuous future.

2. In the course of recent proceedings including (i) TNC CRTC 2013-551, and (ii) Shaw's TN 22("TN22") tariff application VMedia has consistently expressed the view that the current costing model for wholesale access services is deficient, and has resulted in a pricing framework which, if it is not substantially transformed, will result in the obliteration of the IISP segment.

Background

3. The current framework is in concept suitable but in execution has resulted in undesirable outcomes, starting with (i) the misguided and unnecessary attempt to discourage Canadians from actually taking advantage of all the benefits the internet offers every single Canadian, through the imposition of usage based billing in Telecom Decision 2010-255 (the "UBB Decision"), (ii) the wide range of wholesale rates approved by the Commission pursuant to TRP CRTC 2013-703 (the "CBB Decision"), (iii) the subsequent adjustments to them through a myriad of review and vary proceedings, and finally (iii) what must rank as the watershed moment illustrating the potential abuses of the current framework, TN 22.

4. And this framework followed on the heels of yet another wholesale pricing framework that led to even more abusive behaviour, being the attempt to impose usage based billing on IISPs, again a measure which if successful would surely have swept the market clear of any competition to the duopolies.

5. As a result of the existing wholesale pricing model, IISPs look on with great concern at the growing public appetite for video over the internet, whether provided by licenced BDUs like VMedia over an IPTV platform, or by streaming services like the still-increasingly popular Netflix. It is by now a cliche to describe video as the killer internet app, but it is a cliche because it is true.

6. As that appetite grows, the noose around the neck of IISP segment tightens, for each new consumer that embraces VMedia TV or Netflix needs IISPs to provide them with more bandwidth, and the more bandwidth IISPs provide to their customers, the more their cost of goods increases - and their margins evaporate. Oddly, that problem does not seem to affect incumbents, which continue to enjoy internet service margins in excess of their cost of goods of between 70 and 100%.[1]

7. In VMedia's presentation before the Commission at the TNC 2013-551 hearing VMedia expressed alarm at the increasing rate of growth of the cost of bandwidth

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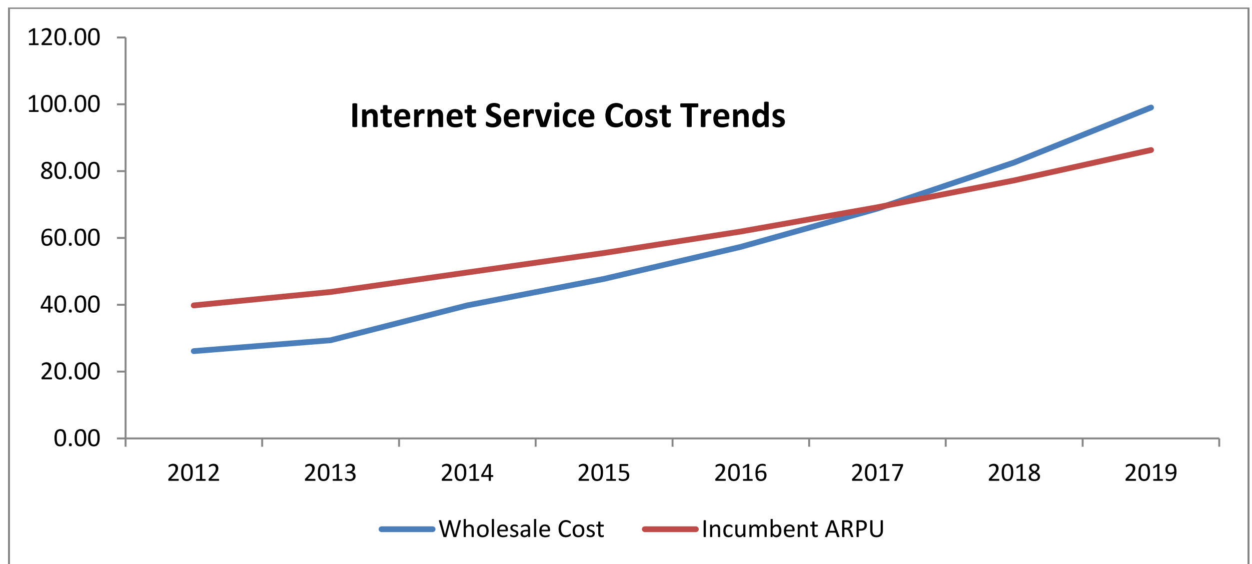
[1] *Broadcasting Notice of Consultation 2014-190, the Future of TV hearings, hearing transcript:*
"8018 Oddly enough, the Internet service is a higher margin service than the cable service. It, if anything, is subsidizing the cable service.
"8019 Think about it. If somebody pays $60 for their cable service, that first $20 we send right out the door to the programming services in cost of goods or cost of programming, leaving us with $40 to try to build the network, manage the network, run the overheads.
"8020 Over on the Internet side, the customer pays us $60, and there is no cost of goods sold. That is all margin(ed-sic) to drive the network."

to IISPs, costs which were not borne out by the rate of increase to the relevant incumbent's retail prices. In that presentation VMedia offered a chart, reproduced below, which predicted that at those rates, wholesale prices would be greater than retail prices within two years, rendering IISPs obviously uncompetitive, and shortly obsolete.



8. Little did anyone know that day was not two years, but only two months away. Specifically, in TN 22, the incumbent is asking for a flat rate, in the case of its Internet 60 product for example, of $73.70, up almost $20 from its prior closest speed, Broadband 50. At the same time, its retail price for Internet 60 is $90.00.

Policy

9. All of that would be irrelevant, since it is not the role of the CRTC to buttress IISPs in a vacuum. Policy does not require the Commission to support this segment just because IISPs happen to be in business, and deserve regulatory intervention. That is not the case at all.

10. It is instead policy that has been shaped for the benefit of Canadians, for consumers, as stated by the Commission itself many times[2], which is the

[2] *See TRP CRTC 2010-632 :*
50. The Commission notes that it has previously determined that the retail Internet service market is sufficiently competitive to protect the interests of users and that it forbore from regulating retail Internet services for this reason. The retail residential and small-to-medium-sized business Internet service markets are now served by the

foundation for the IISP segment. If that policy remains a priority, and based on all of the Commission's actions over the last several years it may be more of one than ever before, it is essential that IISPs be provided access to facilities at rates which enable IISPs to continue to be the competitive counterpoint to the duopolies. Under the current framework that policy cannot be sustained.

11. It is for this reason that this process is so crucial, and why it is so important that the Commission and the stakeholders, including IISPs, consumer groups and the incumbents, work together to get it right. The processes described in paragraph 3, with the exception of the interim disposition of TN22, have only served to make the position of IISPs more precarious, and for the sake of sustaining policy, if not for the sake of sustaining the IISP segment, things must change.

Scope of the Notice

12. VMedia is strongly supportive of the measures being considered in the Notice, in particular those introduced by the Commission in 2013, but VMedia does not believe they go far enough. Conceptually, the Notice leaves intact the ability of the incumbents to dictate the terms of the Phase II costing process, by continuing to allow the detailed review and analysis of the inputs to be restricted to a bilateral process between themselves and the Commission. Stakeholders have the opportunity to comment, but only at the margins, as the detailed elements are filed in confidence, leaving IISPs no opportunity to identify and comment on the summaries of revenues and cost impacts, which form the core of tariff applications. IISPs, which must deal with and confront those cost impacts in their

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incumbents and a number of smaller competitors that generally use the incumbents' wholesale services to do so. In the Commission's view, these competitors' services bring pricing discipline, innovation, and consumer choice to these retail Internet service markets...

55. The Commission concludes that, without a speed-matching requirement for wireline aggregated ADSL access and TPIA services, it is likely that competition in retail Internet service markets would be unduly impaired. In the Commission's view, an ILEC and cable carrier duopoly would likely occur in the retail residential Internet service market, and competition might be reduced substantially in small-to-medium-sized retail business Internet service markets. The Commission considers that, in such circumstances, retail Internet service competition would not continue to be sufficient to protect consumers' interests.

and :

The CBB Decision:
3. Services provided by the independent service providers bring pricing discipline, innovation, and consumer choice to the retail Internet service market. According to the Commission's most recent monitoring report,[2] the network providers have 94 percent of the residential retail Internet market in Canada and the independent service providers have 6 percent of that market. For the Commission, it has been important to ensure that retail Internet service competition is sufficient to protect consumers' interests.

own businesses on a day to day basis, are in the best position to speak to their legitimacy in tariff applications, but do not have the opportunity to do so.

13. Instead, it is left to the Commission, which relative to the combined efforts of the incumbents have few resources, and limited on the ground experiences with the day to day business of providing internet services, to make the final determination regarding the legitimacy of the requested rates. The Notice speaks of the increased "regulatory burden for both the industry and the Commission". VMedia doubts that there can a greater element of that regulatory burden on the Commission that the consideration of the legitimacy of tariff applications, and VMedia believes that the responsibility of assessing the confidential elements of the applications is the greatest burden of all.

14. The Commission has historically accepted the inputs of the incumbents as the basis for their deliberations, and while the likelihood of exaggeration and cost inflation was understood, processes and outcomes seemed to reflect the belief that judicious discounts to their "asks" would result in fair pricing. Regrettably the lessons of the UBB Decision, and now the CBB Decision, seem to indicate that the incumbent objective is not to mitigate the impact of IISPs on their business, but to eliminate it completely.

15. This perception is further reinforced by the detailed accounts of anti-competitive practices carried on by certain incumbents as detailed in the recent Part 1 application by the Canadian Network Operators Consortium Inc.("CNOC")[3], practices which VMedia has been subjected to as well.

16. In combination, it is obvious to VMedia that greatest scrutiny must be given to the information provided by the incumbents to the Commission in proceedings relating to wholesale pricing, and the burden of proof in justifying their claims must fall on the incumbents, to be thoroughly examined by the Commission and all affected stakeholders.

A Call for Full Transparency

17. It is for this reason that VMedia proposes that the protection of confidentiality with respect to tariff applications, which has for so long given the incumbents cover, be eliminated, and that IISPs and other stakeholders be permitted to review the incumbents' submissions in full, and be able to knowledgeably comment on every claim and detail.

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[3] CRTC Reference 8660-C182-201313113

18. This request has been made in the past and has been partially accommodated, but that accommodation has not been enough, with the result that costs are submitted, such as in the case of TN22, which if approved will put IISPs out of business. That same transparency would have completely avoided the confusion and controversy that surrounded the UBB Decision, where incumbents were nearly successful in persuading the Commission that consumers should be charged up to $2 for a gigabyte of data that had an incremental cost of no more than 3 cents. With full transparency no incumbent would have had the nerve at any time to even attempt to introduce such a measure.

No Harm to Incumbents

19. There is no substance to the usual claims by incumbents that full disclosure would give anyone a competitive advantage.

20. First of all with respect to the competition between IISPs and the incumbents, the incumbents as wholesale access providers know virtually everything about IISPs' business - their cost of goods, their customer base, their usage and their profitability. And very often, such as in the case of their access to IISPs' customers, incumbents abuse that information, information that would be subject to a fiduciary duty in most other contexts, by trying to steal those customers through derogatory statements by their agents and technicians, or using predatory retention prices during the transfer process.

21. Then with respect to competition with other incumbents, that too is a baseless concern. When the CBB Decision was announced and the wildly varying rates awarded to the incumbents were disclosed, a senior industry executive, referring to the costs awarded to his company's competitors said “Why would my costs be any different than theirs? It doesn’t make any sense.”[4]

22. Full transparency is the only way to ensure that any new framework, or the current one adjusted in accordance with the parameters set out in the Notice, can achieve unassailable credibility, and a pricing structure which enables the Commission to ensure that its policy objectives are achieved. The costs submitted will hew more closely to the costs that the incumbents show in their financial statements, instead of diverging wildly by a factor of up to 100%. VMedia provided a detailed illustration supporting that view in its submission in connection with TN22 dated February 5, 2015, a portion of which is abstracted and attached hereto as Appendix A.

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[4] http://www.itworldcanada.com/article/crtc-opts-for-capacity-based-billing-for-isps/45052#ixzz3gRQyqszp

23. In that submission some of the argument is based on the incumbent's published financial statements. VMedia submits that the incumbents deliberately obfuscate the performance of their internet businesses, by failing to segment the financial disclosure in such a way as to enable IISPs and regulators to better understand the actual profitability of that business. At the very least the incumbents should be obliged to provide greater detail to enable the Commission and stakeholders to test their costing submissions against the margins they actually make on those services.

24. We provide by way of illustration a portion of Time Warner Cable Inc.'s 2014 Form 10-K (annual report), in Appendix B. Based on that data we have created the below analysis which shows the margins by segment. Note that the high-speed data segment shows a 63% *operating* margin, one that includes a share of sales and marketing expenses, which IISPs obtain no benefit from, and customer care expenses, which are marginal in connection with services provided to IISPs unless there are issues with the contracted-for services. Taking that into account, the 70% estimate in the case of VMedia's TN22 analysis is appropriate.

	Revenues	Share	Net Exp - Share	Total Exp -Share	Depre. - Share	Net Margin
Total Revenues	$ 22,812.00					
Residential Revenues						
Video	$ 10,002	54%	$ 2,323	7,398	$ 1,419	12%
HighSpeed Data	$ 6,428	35%	$ 1,493	1,493	$ 912	63%
Voice	$ 1,932	10%	$ 449	449	$ 274	63%
Other	$ 84	0%	$ 20	20	$ 12	63%
Total	$ 18,446					
Res Operating Costs						
Programming	$ 5,075					
Sales and Marketing	$ 1,470					
Technical	$ 1,379					
Customer Care	$ 705					
Video Franchise Fees	$ 464					
Total	$ 9,823					
Net of Video Exp	$ 4,284					
Total Depreciation	$ 3,236					
Res Share of Deprec.	$ 2,617					

25. VMedia submits that until the base costs, upon which other adjustments such as costs of capital should be layered, do not approximate these costs - and they are far from them - no tariffs will have credibility, and those which suggest, such as in the case of the TN22 application, that IISPs should pay based on nearly twice that, are absurd. Only complete transparency will avoid the continuation of such incredible scenarios.

26. Such a process may also lead to wholesale pricing which is at least remotely reflective of the retail cost for similar forborne services offered by incumbents to their business customers, which are end-users and do not compete with them. This is the case with fibre service provided to VMedia at one of its locations, where it pays effectively $1.32 per Mbps, a far cry from the CBB of between $10 and $20 per Mbps it pays to incumbents under the current framework.

27. A detailed description of VMedia's fibre service costs, as well as an analysis of how those costs are much closer to the incumbents' real costs than those derived from the CBB pricing model, are set out in Appendix C.

28. For the foregoing reasons, which in sum prove the structural flaws in the current costing process that go beyond the issues raised by the Commission in the Notice, VMedia implores the Commission to use the opportunity presented by this process to implement measures including

    a. the elimination of the entitlement of incumbents to file cost impact and other details in confidence to the Commission, and

    b. the requirement that incumbents provide detailed segmented financial disclosure in connection with its internet services of sufficient detail, at least comparable to that of Time Warner, to enable a clear understanding of the actual costs they incur in providing internet services to their residential customers.

29. Without that the current framework will continue to be gamed and abused, and legitimate policies that offer Canadian consumers the level of competition that is crucial to the provision of a key facet of their everyday lives, at fair prices that reflect the true costs of what they consume, will fail.

The Six Issues

I. Should the cost and rate structure of wholesale HSA services(whether based on the flat-rate billing or CBB model) be simplified?

30. Every measure possible should be taken to simplify the existing structure. The cost in time and money for all, in particular IISPs, is tremendous in the aggregate, and inevitably contributes disproportionately to the costs borne by consumers. The evolution of the pricing process and related tariff proceedings have been a fulltime regulatory industry for years, with seemingly no let up in sight, particularly when structural changes such as the UBB and CBB process keep coming up. VMedia cannot help but suggest that a great deal of the gaming of the system which contributes to the complexity, such as the introduction of unnecessary new speed changes which often create excuses to increase retail prices and crank up wholesale costs, as is being attempted by TN22, would be eliminated under a fully transparent regime.

31. That said, the status quo clearly is not an option as it is not simple and arguably, based on past outcomes, not coherent. Until the TN22 application, VMedia would have been strongly supportive of Approach 1, but it was obvious with TN22 that it was as potentially unfair and destructive to competition at CBB has proved to be.

32. If the rate setting approach described in Approach 1 is to be truly cost-based, then there needs to be consideration given to those cost elements that create "significant" sensitivity to wholesale rates or the market will not evolve in a competitive fashion. Using a weighted average will create incentive for more competitive rates at slower speeds but less competitive rates at higher speeds. As the Commission has already identified in Paragraph 15 of the Notice, usage is growing by 40-60% annually because of the applications available at the higher speeds. This Approach will create an opportunity for "bottom-feeders" but not IISPs interested in providing innovative and truly competitive services to Canadians.

33. VMedia acknowledges there may be a need for a speed-dependent component but only for those costing variables within this component that are truly sensitive to consolidated wholesale rates. For example, there are some variables that have a minor impact on final rates such that for example a 5% change in the rate will only impact the final rate by less than 1% while a 5% change in another rate element will impact final rates by greater than 10% up or down. The Commission should identify those highly sensitive rates and monitor those elements on a more frequent basis while leaving those that fall below the threshold chosen to review every five years. Again, any improvement in the current complex environment will depend on ensuring a credible impact-submission framework

that eliminates uncertainty in result and assures a fairly priced service as a consistent outcome.

II. Should the Commission's 20% annual traffic growth assumption be modified to more accurately reflect current usage growth trends?

34. Absolutely. VMedia itself made that point in a recent proceeding, referring to a growth rate of at least 40% that was projected in one of the leading recent studies of data consumption[5] which included the chart illustrating the impact of the growing demand for video online.

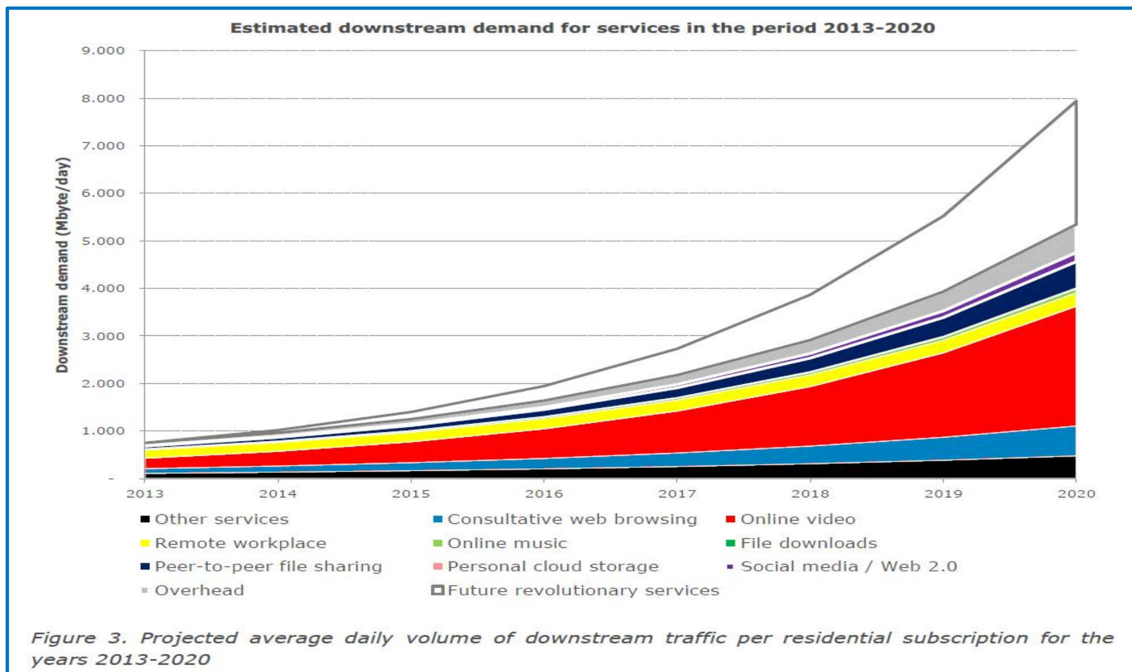

Figure 3. Projected average daily volume of downstream traffic per residential subscription for the years 2013-2020

35. The potential market for that demand remains somewhat untouched, as reflected in the Commission's *Communications Monitoring Report 2014*, which showed that in 2013, admittedly a long time ago in the context of internet usage growth, 60% of the Canadian market was using internet service with speeds below 15Mbps. That number is surely lower now but the market potential remains substantial, ensuring that the growth rate predicted in the above-noted study will certainly continue in Canada. It is precisely that growth rate which is choking IISPs paying CBB wholesale rates.

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[5] *Fast Forward » How the speed of the internet will develop between now and 2020*, June 2014, Dialogic and the Eindhoven University of Technology

36. VMedia's own usage in its two years in business has grown by an average of 30% per year in that period, despite beginning at a higher level due to its skew toward IPTV-using customers, which has resulted in a much higher distribution of customers using higher speed services. In VMedia's case only 15% of its subscribers have speeds below 25Mbps.

37. For these reasons we do not project a 40% growth rate for our customer base, but rather closer to 35% per annum for the period from 2015 to 2019.

38. These elements should of course be analyzed based on their sensitivity to the final rates, and frequently, as growth may very well stabilize at some point of market saturation of higher speed services and video usage, though even that may be impacted by the introduction of new online viewing formats like 4K.

39. The Commission might consider expanding the data collection that is the basis for the annual Monitoring Report and as part of that process release its findings on changing wholesale rates attributable to sensitive cost elements and have the changes effective automatically and annually on September. That might give parties time to prepare for the changes and would provide transparency to that extent.

III. Should the annual unit cost reduction assumption of minus 10% be modified to more accurately reflect current equipment cost trends?

40. VMedia wishes to restate that with full transparency this would not be an issue, Assumptions would not have to be built into the model but could rather be replaced with costs on an actual basis as individual tariff applications are submitted from time to time. In the alternative with an understanding of what equipment elements go into the cost impacts that form the basis of the pricing models, a universally verified rate based on existing trends for such equipment could be quickly implemented and using for a period of five years as part of the model. In any event, VMedia agrees with the Commission's view that 10% is not a adequate reflection of falling prices and should be modified.

41. The foregoing five year suggestion depends on how sensitive the wholesale rate is to those elements - if highly, then they should be updated annually.

Other Proposed Modifications

42. VMedia strongly urges the Commission, if it is reviewing these assumptions, to fully reconsider the other key elements that establish pricing benchmarks. In

particular, this process should include a reexamination of the appropriateness of the markups of up to 40%(the "Mark Up"), and what exactly it is intended to deal with in the current market environment.

43. It should also include a review of cost of capital assumptions, in particular cost of debt and of equity in the low interest, low yield market capital markets which have been the standard for at least five years now.

The Mark Up

44. With respect to the Mark Up it has never been clear to VMedia what is being compensated for in exchange for such a substantial upcharge. In TRP 2011-703 the Commission described the markup as "the amount that is added to the Commission-approved costs to set the cost-based rate for a service. This difference between the rate and the Commission-approved costs serves as a contribution towards the company’s fixed and common costs and a profit margin."[6]

45. If it is all to provide a margin to the incumbents in the same way any wholesale goods or service provider is entitled to a markup over its cost of goods or services, that would be understandable, although the amount is highly excessive for a wholesale markup, especially in a purportedly competitive environment.

46. Indeed, it is VMedia's view that the intention of all the costing processes that have been tried and implemented over the years ought to have been to create a virtual wholesale market in which IISPs can purchase bandwidth for prices that would approximate what fair market prices should be were there a wholesale market.

47. Certainly VMedia has no knowledge of anything being provided by the incumbents to justify the Mark Up and therefore must assume it is intended to provide that virtual margin that the virtual wholesaler is entitled to.

48. In VMedia's view it is excessive especially when compared to real overall costs, as reflected at least in the Time Warner illustration above. Indeed, VMedia pays additional fees for every service provided by the incumbent to VMedia, including installation fees and transfer fees, and no services other than customer care for escalated technical issues are provided without additional charge.

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[6] Footnote 29.

49. The Mark Up is particularly egregious when taking into account the business to business rates charged by incumbents, as illustrated in VMedia description of its own experience with costs in Appendix C, in particular paragraphs 25 and 26.

50. VMedia urges the Commission to review the continued fairness of the imposition of the Mark Up and modify it accordingly.

The Cost of Capital

51. Similarly, with respect to cost of debt and equity, a full review should be undertaken, in view of that fact that those benchmarks were established as far back as 2000, and the tectonic shifts that have occurred in the capital markets since that time demand a full review of these assumptions in conjunction with this process.
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IV. Should the study period be changed from the current ten years to a shorter period? if so, would a five-year study period be appropriate?

52. This would depend on how the new costing models that might emerge from this process are arrived at, and whether full transparency is incorporated into the changes being considered in the Notice. In view of the situation that IISPs are in now, it is most reassuring that this review is taking place now and not in another six years which would be the case under a ten year regime.

53. The changes to the business, and the unrelenting efforts of certain incumbents to drive IISPs out of business, or to prevent them from launching their businesses in the first place, calls out for a shorter horizon. With the perpetuation of the existing model for another six years, there would be no wholesale pricing framework needed anymore as IISPs would be extinct, all to the detriment of consumers which would be in the hands of the duopolies in their markets.

54. Absent any other consideration, a five year study period would be more appropriate.

V. Should the usage sensitive equipment (e.g. CMTS, Optical Node) be assigned to the traffic-driven portion of cost models? If so, to what extent(e.g. 100%).

55. Again, VMedia is of the view that there is not enough information available to even determine what is reasonable to put into those categories, let alone the costs associated with them. If they are items which "include Internet Protocol routers and Ethernet switches, and their associated interconnection links" as the Commission

has described[7], then if the associated links between the CMTS and the point of interconnection only account for 20% of the CBB[8] then 80% of the CBB must relate to routers and switches, which would be absurd.

56. It is precisely this uncertainty which is highlighted by VMedia's own costs as end-user of fibre services, where the end to end cost of the service is $1.32 per Mbps. The reason for that cost differential is obvious - the incumbents competed with each other to provide VMedia with those services, and were focused only on doing a deal and making their required margins, and not on protecting their duopolies. We again challenge the incumbents to persuasively show justification for the more than ten-fold cost differential between the services.

57. Assuming that all the elements that comprise usage sensitive equipment, and their costs, direct and associated, are disclosed through a fully transparent process, VMedia would not object to them being assigned to the traffic-driven portion of the cost models.

VI. How should the Commission determine final rates for destandardized services?

58. .VMedia itself, because of its relatively short history, is not materially affected by the outstanding destandardized services which remain to be granted final rates. However, with the very elements the Commission is considering in the Notice it would be likely that final rates would reflect the falling prices for higher speeds, and accordingly would result in lower retroactive wholesale costs and possible much needed and deserved rebates for IISPs.

59. On the other hand the Commission is seized with matters far more substantial to the public and it is understandable that the Commission would seek an expedited process to finalize those rates, or an agreement between the incumbents and the IISPs on rates on a mutually acceptable basis.

60. In view of VMedia's substantive comments and requests for more and better, indeed complete information about costs, and adjustments to certain assumptions in the costing models not addressed in the Notice, it would recommend deferral of the finalization of those proceedings pending the introduction of amendments to the model contemplated by the Commission.

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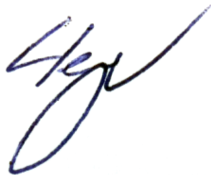
[7] TRP CRTC 2011-703, Footnote 26

[8] TRP CRTC 2013-551, Hearing Transcript at paragraphs 9011 and 9012

61. The Commission can then revisit the issue based on the degree of variances between model outcomes, and possibly provide a more streamlined framework within which to finalize those interim rates.

62. This concludes VMedia's comments on the Notice. It is grateful for the opportunity to participate in this process, and hopes the Commission has the latitude to consider and act on VMedia's comments that may have gone beyond the specific questions contained in the Notice.

Yours Very Truly,



Alexei Tchernobrivets
Chief Executive Officer

APPENDIX A

Abstract From VMEDIA'S Submission in Shaw TN 22, dated February 5, 2015

63. And all of the foregoing leaves aside the question of Shaw's own gross margin, as implied by the requested rates. Specifically, the "Detailed Costs" filed by Shaw in connection with Internet 60 show a cost impact per unit of $56.69. In the face of the analysis by Juce Communications Inc. showing an actual retail cost benefit to Shaw for that service of $79.55 - only $5.85 more than the proposed interim rate - Shaw's implied gross margin derived from retail internet service is $22.86, or just over 28%. That is its gross margin on the product based on its own cost impact disclosure.

64. It should be noted that in its most recent financial reporting period, the quarter ended November 30, 2014, Shaw showed net profit of $386 million before financing costs and incomes taxes. That represented 28% of its total revenues. That is net profit, not gross margin, which typically can be as much as double net profits, but certainly substantially more. And those are profits spread across all of Shaw's businesses. It is startling, not to mention incredible, that its net profit is equal to its implied gross margin.

65. Regrettably, in its public financial disclosure Shaw does not segment its businesses in any way that materially helps this analysis. However, it should be born in mind that at Broadcasting Notice of Consultation 2014-190, the Future of TV hearings, a cable industry executive made the following statement:

> "8018 Oddly enough, the Internet service is a higher margin service than the cable service. It, if anything, is subsidizing the cable service.
>
> "8019 Think about it. If somebody pays $60 for their cable service, that first $20 we send right out the door to the programming services in cost of goods or cost of programming, leaving us with $40 to try to build the network, manage the network, run the overheads.
>
> "8020 Over on the Internet side, the customer pays us $60, and there is no cost of goods sold. That is all margin(ed-sic) to drive the network."

66. Based on that statement it can be reasonably inferred that gross margins are considerably higher than 28%, and certainly reflective of a far lower cost impact attributed to the wholesale internet services in question. This is because it is clear

from the above noted testimony that the margins skew heavily in favour of internet services - they are clearly the cash flow drivers of the overall cable business, so the net profits, and gross margins, would represent a substantially greater percentage of revenues than 28% for that business segment.

67. Indeed if net profits skew only five percent greater to internet, based on Shaw's submissions its net profit from internet services would be greater than its margin - an absurd financial result.

68. Assuming a reasonable gross margin(which would include amortization of facilities, which for the most part is Shaw's cost of goods) of 50%, and using the Juce Communications Inc. adjusted retail price, the cost impact should be $39.00, and the wholesale price $50.70 - not $73.70.

APPENDIX B

TIME WARNER CABLE INC.
MANAGEMENT'S DISCUSSION AND ANALYSIS OF RESULTS OF OPERATIONS AND FINANCIAL CONDITION—(Continued)

Segment Results

Residential Services. The financial results of the Residential Services segment for 2014, 2013 and 2012 were as follows (in millions):

	Year Ended December 31,			% Change	
	2014	2013	2012	2014 vs. 2013	2013 vs. 2012
Revenue:					
Video	$ 10,002	$ 10,481	$ 10,917	(4.6%)	(4.0%)
High-speed data	6,428	5,822	5,090	10.4%	14.4%
Voice	1,932	2,027	2,104	(4.7%)	(3.7%)
Other	84	72	64	16.7%	12.5%
Total revenue	18,446	18,402	18,175	0.2%	1.2%
Operating costs and expenses:					
Programming	5,075	4,845	4,652	4.7%	4.1%
Sales and marketing[(a)]	1,470	1,396	1,276	5.3%	9.4%
Technical operations[(a)]	1,379	1,370	1,313	0.7%	4.3%
Customer care[(a)]	705	655	646	7.6%	1.4%
Video franchise and other fees[(b)]	464	484	505	(4.1%)	(4.2%)
Other[(a)]	730	964	1,071	(24.3%)	(10.0%)
Total operating costs and expenses	9,823	9,714	9,463	1.1%	2.7%
OIBDA	$ 8,623	$ 8,688	$ 8,712	(0.7%)	(0.3%)

(a) Amounts include total employee costs, as follows (in millions):

	Year Ended December 31,			% Change	
	2014	2013	2012	2014 vs. 2013	2013 vs. 2012
Employee costs	$ 2,743	$ 2,633	$ 2,498	4.2%	5.4%

(b) Video franchise and other fees include fees collected on behalf of franchising authorities and the FCC.

APPENDIX C

Abstract From VMEDIA'S Final Reply in TNC 2013-551, dated December 19, 2014

14. And finally, as VMedia pointed out during the question and answer stage of the Hearing, the costs that we do know related to supplying bandwidth are far less than the wholesale cost of the mandated services. Clearly there is something wrong with this picture, and only a completely transparent process can fix it.

15. Indeed, on that last point, VMedia was contradicted in the testimony of one of the incumbents, to the effect that "...When they come and speak of that factor, and the fellow from VMedia gave his example, I can buy a 5 or 10 GB for $5,000, so that is 0.50 cents a megabyte, so it should be about $5 for 100 MB. He is talking about inter-city transport. And so one example would be, say one high-capacity pipe from say Toronto to Buffalo might be his example to get into the worldwide web."[9]

16. That is not the case at all. VMedia was talking about services equivalent to CMTS to the point of interconnection, the portion which was acknowledged to constitute 20% of the CBB costs[10], described by the incumbents themselves as intra, not inter, city costs.

17. The services currently used by VMedia for those intra-city connections are outlined in the map below.

[9] The Transcript, paragraphs 9011 and 9012
[10] The Transcript, paragraphs 9032, 9033

18. The relevant costs between those points are as follows:

A—B: $3500/month for 10,000 Mbps line
C—B $3825/month for 10,000 Mbps line
D—B $1316/month for 1000 Mbps line
E—B $6400/month for 10,000 Mbps line
F—B $1316/month for 1000 Mbps line

19. As those portions consist of comparable services to the 20% share of CBB portion(the "Intra City Portion") acknowledged by the incumbent, then the Intra City Portion comprises $2.80 per Mbps of the $14.00 CBB of the incumbent. However, as can be plainly seen from the above, those costs, which presumably have profit margins built into them, are only $0.35 to $0.64 per Mbps based on 10GIG of capacity. This means that the Intra City Portion alone is four to eight times the comparable market price for equivalent service, without taking into account additional discounts that an ISP can get for purchasing multi-10GIG capacity, which could drive those prices down further to a point where the Intra City Portion is more than ten times the commercial price. This too shows that there is something wrong with this picture.

20. Another approach is to compare the Intra City Portion cost to laying dark fiber. In the case of A - B in the above diagram, a group of ISPs priced out the cost of multi-strand dark fiber for the distance of 16 kilometers. This price came to $40,000/km, or $640,000. This quotation was for 64 strands of fiber, each of which could be further divided based on the wavelengths into multiple 10G or 100G circuits, depending on the equipment chosen on both ends. The 100G-capable equipment from CISCO ranges in cost between $100,000-200,000. This would supply ISPs with 100GIG capacity for $1,000,000.

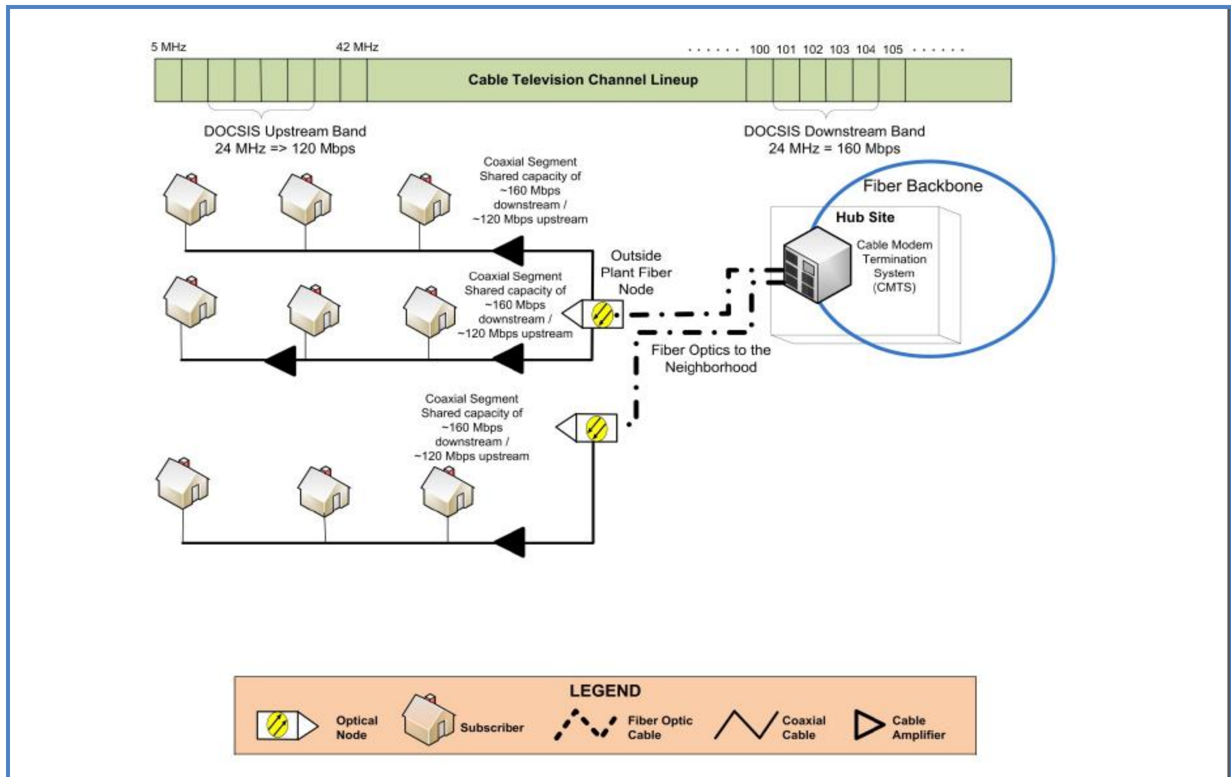
21. Using the price posted above of $3500 per 10GIG capacity, multiplied by actual consumption of 100GIG, the investment would be amortized by the ISPs in 29 months ($1,000,000/10X10GIG, @ $3500/month per 10GIG).

22. However, at the low end of the amount by which the Intra City Portion exceeds the above noted costs, its cost of incremental capacity is fully recovered in seven months, and at the high end, in three and a half months. After that, as the incumbent itself acknowledged, it is 100% margin. Yet ISPs are required to pay those costs in perpetuity. There is definitely something wrong with this picture.

23. Regarding the 80% of CBB that is not related to the Intra City Portion, the claim is made that there is no comparison between Intra City Portion, and the costs related to reaching homes from a head end.[11] VMedia has several points to make regarding the questionable legitimacy of extrapolating costs on the basis of miles laid.

24.First, the connection between the CMTS and the home is not one seamless element, but itself can be further subdivided into a portion from the CMTS to a fibre node, and then from the node to the homes connected to it. The diagram below illustrates the topology.

[11] The Transcript, paragraphs 9013-9015.



25. That portion, from the CMTS to the node, involves engineering and construction not dissimilar to the Intra City Portion, but in any event far less complex than as suggested in the extract at footnote 7. It is simplistic and arguably misleading to suggest that 200,000 homes are individually connected to that Intra City Portion, effectively a mile per home. Instead, in fact, the CMTS itself connects to those nodes at a cost not materially greater than the cost of connection along the Intra City Portion, bundling many homes together for further economies of scale.

26. So in order to arrive at an understanding of the costs underlying the remaining 80% it is important to focus on the cost of the CMTS to node element. One example is Point D-B in paragraph 18, which connects 151 Front Street in Toronto with a building on Edilcan Drive in Vaughan. The cost is $1.31 per Mbps, arguably higher than available for larger capacity purchases, but still a far cry from even a significant portion of the remaining 80% of CBB of $11.20.

27. The number of homes served by each node depend on the specific cable system, but to our knowledge there are typically a few hundred homes or businesses. Typical cable industry practice is to reduce the segment size or add channel capacity when the peak utilization reaches a particular threshold. This is typically done in a case-by-case, incremental way, for the part of the cable system with the need. But we believe that this crucial intermediate portion should be assessed as a separate element of the remaining 80%, and understood to represent another scalable portion that limits the incremental costs of additional capacity.

28. Second, much is often made of the fact that density is a factor in capital costs, and pricing. However, it should be pointed out that the cost of CBB in Winnipeg is a quarter of what it is in Toronto, notwithstanding the greater density of the latter. It was this irreconcilable disparity that from the time the CBB decision was announced undermined the credibility of the pricing that arose from that decision.

29.Finally, if customers reached per mile is truly that sensitive a factor, then there should be much different pricing for apartment buildings, where a large proportion of the urban Canadian population resides. At the very least it can be inferred from the above noted comments that reaching 400 tenants in an apartment complex is far less costly than in a subdivision.

30. Again, VMedia acknowledges that much of what we have submitted, here and elsewhere in these proceedings, are arguments by inference. But no other conclusion can be drawn from these observations other than that the current pricing regime is deeply flawed.

31. VMedia submits, again, that the only way to achieve a fair wholesale pricing framework, is to ensure the Phase II costing process be rendered completely transparent, so that the full range of industry expertise can be brought to bear on arriving at a result which assures

a. (a)incumbents of a fair rate of return on their investment,

b. (b)ISPs of access to wholesale services at a price which allows them to effectively compete with the incumbents, and

c. (c)Canadian consumers of access to a competitive array of internet and TV services which will provide them with fair pricing, choice and innovation.

32. There is nothing sacrosanct about the information that comprises the elements of the Phase II costing process. As an incumbent acknowledged at the Hearing, we are not talking about proprietary technology or intellectual property or even exclusive know-how or expertise, but only about the "costs of digging up the roads, laying fibre, et cetera."[12] There is nothing competitive in that information, those costs are similar for everyone in the business, commodity-priced. There is no compelling reason to keep those costs hidden, obscuring the process in perpetuity. Once those costs are made public, and examined, and critiqued, there will be no further need to continually revisit pricing, obtaining inconclusive results that threaten policy objectives, all at taxpayers' expense. It can be gotten right.

[12] The Transcript, paragraph 9014.