

**FEDERAL COURT**

B E T W E E N:

BELL MEDIA INC., GROUPE TVA INC.  
and ROGERS MEDIA INC.

Plaintiffs

and

JOHN DOE 1 DBA GOLDTV.BIZ and JOHN DOE 2 DBA  
GOLDTV.CA

Defendants

and

BELL CANADA, BRAGG COMMUNICATIONS INC. DBA  
EASTLINK, COGECO COMMUNICATIONS INC., DISTRIBUTEL  
COMMUNICATIONS LIMITED, FIDO SOLUTIONS INC,  
ROGERS COMMUNICATIONS CANADA INC.,  
SASKATCHEWAN TELECOMMUNICATIONS HOLDING  
CORPORATION, SHAW COMMUNICATIONS INC., TEKSAVVY  
SOLUTIONS INC., TELUS CORPORATION  
and VIDEOTRON LTD.

Third Party Respondents

**AFFIDAVIT OF PAUL STEWART**

I, Paul Stewart, of the City of Peterborough, in the Province of Ontario,

SOLEMNLy AFFIRM THAT:

1. I am the Vice President of Technology at TekSavvy Solutions Inc. (“TekSavvy”), a position I have held since 2017. I have worked for TekSavvy since January of 2015. As such, I have knowledge of the matters to which I depose in this affidavit. Where I make statements in this affidavit based on information that is not

within my personal knowledge, I have identified the source of the information and believe the information is true.

2. TekSavvy is an independent, competitive Internet service provider (“ISP”), providing residential, commercial, and wholesale telecommunications services to more than 300,000 Canadian homes and businesses across Canada. As part of those services, TekSavvy provides domain name system (“DNS”) services to its users.

3. TekSavvy is a wholesale network access-based telecommunications service provider: it leases the last-mile infrastructure on a wholesale basis from incumbent carriers in order to provide Internet access to its own customers. I have had an opportunity to read the affidavit of Erone Quek sworn in support of the plaintiffs’ motion (Tab 4 of the plaintiffs’ motion record, or the “Second Injunction Record”), which explains this concept at paragraphs 25 to 30.

4. In contrast, as outlined at paragraphs 35 and 36 of Mr. Quek’s affidavit, the plaintiffs and many of the third party respondents in this motion are all incumbent carriers which own the last-mile infrastructure that connects their customers to the Internet. Also unlike the plaintiffs, TekSavvy does not own the copyright in television content.

5. Nevertheless, TekSavvy does compete directly with the plaintiffs in the ISP market, such as in retail residential and business Internet access, telephone services, television services, and enterprise services, i.e. large businesses.

6. In my current position, my responsibilities are to foster the development of new services as they pertain to our business team including, but not limited to, managed services offering. I also work with our outside sales team to provide technical guidance and solutions that meet our customers' needs.

7. Prior to my current position, I have held positions as Director of Network Operations and as a Network Engineer at TekSavvy. I have over 25 years of experience working in the ISP and telecommunications industry. I have served on several boards including the Toronto Internet Exchange and the Ottawa-Gatineau Internet Exchange. My LinkedIn profile is attached as **Exhibit A**.

8. I understand that in this motion, the plaintiffs are seeking a "site-blocking order" that would enjoin TekSavvy and other ISP third party respondents to block or attempt to block access to the defendants' websites or other Internet services for their subscribers. I also understand that this type of injunction is novel and has never been sought from a Canadian court.

9. In this affidavit, I first address TekSavvy's stance on net neutrality. I then address site-blocking and its effectiveness, and I describe alternatives to site-blocking. Finally, I describe the effects that a site-blocking order would have on TekSavvy and on its customers.

#### **TekSavvy and Net Neutrality**

10. For many years, TekSavvy has been a champion of "net neutrality" as the bedrock principle of a fair and open Internet. Net neutrality is the concept that all traffic

on the Internet should be given equal treatment by ISPs, with little to no manipulation, discrimination or preference given.

11. Customers are attracted to TekSavvy because of its commitment to fighting for and upholding consumers' rights online, including its stance on net neutrality. TekSavvy considers that its proven record of fighting for consumers' rights increases its competitiveness in the ISP market. Indeed, TekSavvy has won numerous awards in that regard, such as being voted Toronto's Best ISP for seven years running by the readers of the publication NOW! Toronto. Clippings from the NOW! publication indicating those awards from 2012 to 2018 are attached as **Exhibit B**.

12. I understand that the plaintiffs' motion record for the interim and interlocutory injunctions against the defendants (the "First Injunction Record") references the "FairPlay proceeding" at the Canadian Radio-television and Telecommunications Commission (the "CRTC"). In that proceeding, the FairPlay Coalition, which included the plaintiffs and some of the third party respondents to the within motion, brought an application to the CRTC to implement a site-blocking regime. TekSavvy filed an intervention opposing that application to the CRTC, including on the basis of the proposed site-blocking regime's violation of the principle of net neutrality. That intervention is attached as **Exhibit C**.

13. Various other organizations or prominent individuals filed interventions in the FairPlay proceeding, a few of which I attach to my affidavit:

- (a) The Canadian Media Concentration Research Project's intervention is attached as **Exhibit D**; and

- (b) The Samuel-Glushko Canadian Internet Policy and Public Interest Clinic's intervention is attached as **Exhibit E**;
- (c) The Canadian Network Operators Consortium Inc's intervention is attached as **Exhibit F**;
- (d) The Internet Society's intervention is attached as **Exhibit G**;
- (e) The intervention of the United Nations Human Rights Special Rapporteur on the promotion and protection of the right to freedom of opinion and expression, David Kaye, is attached as **Exhibit H**; and
- (f) Professor Michael Geist's intervention is attached as **Exhibit I**.

14. In addition, during the statutory review of the *Copyright Act* conducted by the Industry, Science and Technology (the "INDU Committee"), TekSavvy made oral submissions to the INDU Committee with respect to the effects of site-blocking on net neutrality. A summary of those submissions is attached in an excerpt of the INDU Committee Report as **Exhibit J**.

15. Finally, I understand that in June of 2018, the Government of Canada appointed the Broadcasting and Telecommunications Legislative Review Panel (the "Panel") to undertake a review of Canada's broadcasting and telecommunications legislative framework. The Panel engaged in consultations across Canada, and TekSavvy participated in those consultations. An excerpt from the Panel's interim report following its consultations is attached as **Exhibit K**.

### Site-blocking and its effectiveness

16. Mr. Quek provides an apt description of site-blocking and its practical effects at paragraphs 48 to 77 of his affidavit. With respect to the three methods of site-blocking explained by Mr. Quek, TekSavvy likely has the capacity to perform DNS blocking and IP address blocking, subject to further technical analysis, but not URL path blocking.

17. Mr. Quek discusses possible methods to circumvent site-blocking at paragraphs 93 to 96 of his affidavit. With respect to the method of using an alternative DNS server to circumvent site-blocking, I do not share Mr. Quek's view that this can be quite challenging for the average user. First, this method is fairly simple for an average user: he could simply call a technical support person from his ISP or network hardware vendor (if using a router), who could explain to him the various steps involved.

18. Second, certain routers that are available for purchase are already using third party DNS providers such as Google DNS and Open DNS, as there is a perception among consumers that third party DNS services are faster than those of their ISP. The use of third party DNS providers allows a consumer to circumvent site-blocking and are quite popular: OpenDNS alone states that it serves 90 million global users. A screenshot of [OpenDNS' website](#) is attached as **Exhibit L**. I believe that Google's DNS usage is even higher than OpenDNS'.

19. Third, there exist various public source user guides for circumvention of site-blocking, such as:

- (a) Fossbytes' "How to Access Blocked Websites? 13 Working Ways to Bypass Restrictions", attached as **Exhibit M**;
- (b) Make Use Of's "5 Methods to Bypass Blocked Sites", attached as **Exhibit N**;
- (c) Tech Advisor's "How to access blocked websites", attached as **Exhibit O**, and
- (d) The following YouTube video which provides detailed and visual instructions on how to circumvent site-blocking.

20. With respect to the Virtual Private Network ("VPN") method, Mr. Quek states at paragraph 92 that using this method to circumvent site-blocking "results in financial and performance costs for users, which represents a further deterrent to their widespread use." It is true that a VPN service costs approximately \$135 CAD per year, as indicated on this ExpressVPN plan website, attached as **Exhibit P**. However, Mr. Quek's affidavit at paragraph 90 appears to show that a significant percentage of Bell Canada's Internet subscribers use a VPN service in some form, which suggests that a significant number of Bell Canada's customers are willing to pay for this service. A consumer may still view a VPN service as cheaper and more accessible than a conventional television subscription service. TekSavvy does not have access to or track information about its customers' use of VPN services.

21. Also, with respect to performance costs mentioned by Mr. Quek, I agree that these do exist when using any VPN due to a portion of the user's Internet bandwidth

being used to support the VPN protocol. These “Protocol Overheads” can typically result in a 5-10% reduction of a subscriber’s overall service performance depending on a number of technical factors such as how the VPN is configured and the distance from the VPN user to the VPN server on the Internet, as discussed below.

22. With respect to configuring devices to use a VPN, as discussed in paragraph 92(a) of Mr. Quek’s affidavit, I note that there are many ways to configure a device to use a VPN. In fact, a consumer’s entire home could be configured to always use its VPN service, as stated on ExpressVPN’s website, attached as **Exhibit Q**.

23. With respect to paragraph 92(c) of Mr. Quek’s affidavit, which states that “use of a VPN service can lead to an important reduction in the speed of a user’s connection”, I agree that the distance from the VPN user to the VPN server may play a role in connection speed. However, with larger VPN providers such as ExpressVPN, those servers are often quite close to the customer. I also disagree that third party VPNs can make it impossible to reach content; the connection may be slower, but not impossible, especially given that residential users’ Internet connection speeds tend to be increasing. The CRTC’s Communications Monitoring Report 2019 found that the weighted average download speed for Canadian Internet subscribers was 68 Mbps in 2017, up from 15 Mbps in 2013. Excerpts of that Report are attached as **Exhibit R**.

24. Indeed, ExpressVPN’s website indicates that it has over 3,000 servers in 160 VPN server locations in 94 countries. That webpage is attached as **Exhibit S**.

25. With respect to operators of infringing services, Mr. Quek comments at paragraph 93 of his affidavit that “available circumvention methods are often



impractical to implement”. However, in my view, it is not difficult for operators of infringing content to circumvent site-blocking, given the following combination of factors: the advent of content delivery networks; the existence of global DNS providers; the fact that certain countries do not have site-blocking regimes; and consumers’ ability to sign up for web hosting services around the world in a short period of time.

26. Accordingly, given that site-blocking can be circumvented fairly easily by both users and operators, I do not share Mr. Quek’s view that site-blocking is an effective solution for preventing infringing content from being provided and accessed on the Internet.

27. In this motion, the plaintiffs have not included all of the various ISPs operating in Canada as third party respondents to this motion: some of the ISPs not included are Primus Management ULC (“Primus”), mentioned at paragraph 39 of Mr. Quek’s affidavit, Xplornet Communications Inc. (“Xplornet”) and Comwave Networks Inc. (“Comwave”). There are also smaller regional ISPs that are members of the Canadian Independent Telecommunications Association that are not included in this motion; a list of these ISPs is attached as **Exhibit T**.

28. In addition, numerous universities and colleges in Canada do not purchase Internet from the plaintiffs or the third party respondents in this motion. Rather, they connect to “upstream providers”, also known as “backbone providers”, which generally provide connectivity to the Internet without themselves having to purchase this Internet from any of the plaintiffs or third party respondent ISPs in this motion. For example:

- (a) The University of Western Ontario, which connects to LARG\*Net for its “upstream connectivity”. LARG\*Net is not a party to this motion. A graph showing this connectivity is attached as **Exhibit U**. Note that LARG\*Net’s name can be seen by clicking on the hyperlink and hovering over AS819;
- (b) York University connects to GTAnet Networking, which is not a party to this motion. A graph showing this connectivity is attached as **Exhibit V**. Note that GTAnet Networking’s name can be seen by clicking on the hyperlink and hovering over AS549;
- (c) Sheridan College connects to Cogent and a local ISP called Frontier Communications, neither of which are parties to this motion. A graph showing this connectivity is attached as **Exhibit W**. Note that these companies’ names can be seen by clicking on the hyperlink and hovering over AS174, and AS7311, respectively; and
- (d) The George Brown College of Applied Arts and Technology connects to GTAnet Networking, a local consortium, and Beanfield Technologies Inc., neither of which are parties to this motion. A graph showing this connectivity is attached as **Exhibit X**. Note that these companies’ names can be seen by clicking on the hyperlink and hovering over AS549, and AS21949, respectively;

- (e) For reference, I have included a highlighted excerpt of the list of the companies mentioned above, from the Hurricane Electric Internet Services website, attached as **Exhibit Y**.

29. According to available statistics from Statistics Canada, as of 2013-2014 there were approximately 2.05 million students enrolled in postsecondary education in Canada, as shown in the attached **Exhibit Z**. A study performed for Innovation, Science and Economic Development Canada in 2018 showed that for online consumers in Canada between the ages of 18 and 34, 51% access some illegal infringing content, and 28% only access illegal infringing content. An excerpt from that study is attached as **Exhibit AA**. Indeed, a significant number of postsecondary students tend to access illegal infringing content: for example, in the U.S. this number is as much as 90% of college students, as indicated in an article entitled “The Economics of Video Piracy”, attached as **Exhibit BB**.

30. Thus, a site-blocking order in respect of the GoldTV websites at issue in this motion would not prevent customers of ISPs that are not third parties to this motion from accessing those websites. Indeed, the students at the above universities and colleges, and others that use non-party ISPs and backbone providers, could represent millions of Internet users in Canada whose use may not be covered by a site-blocking order. This would render any site-blocking order even less effective.

#### **The GoldTV Target Websites and related websites**

31. On August 22, 2019, I caused a search (the “August 22 Search”) to be conducted of the GoldTV domain names, subdomains and Internet Protocol (“IP”)

addresses targeted by the order granted by the Federal Court on August 8, 2019 (the “Target Websites”). The Target Websites are as follows (this chart was taken from Schedule 1 of the draft order of the plaintiffs in the Second Injunction Record):

**1. GoldTV.biz Service**

<b>Domain(s) to be blocked</b>	<b>Subdomains to be blocked</b>	<b>IP addresses to be blocked</b>
goldtv.biz		151.80.96.122
	dtv.goldtv.biz	195.154.35.172
	billing.goldtv.biz	51.15.149.83
	p1-edge.goldtv.biz	188.165.45.150
	256.goldtv.biz	188.165.45.150
	portal.goldtv.biz	188.165.45.150
	p2-edge.goldtv.biz	188.165.164.0

**2. GoldTV.ca Service**

<b>Domain(s) to be blocked</b>	<b>Subdomains to be blocked</b>	<b>IP addresses to be blocked</b>
goldtv.ca		
goldtv.info		
	watch.goldtv.ca	185.246.209.218
	watch.goldtv.info	185.246.209.218
	live.goldtv.ca	217.23.1.3

32. As of August 22, 2019, 15 of the 19 Target Websites, such as goldtv.biz, goldtv.ca, and goldtv.info, were not loading: that is, they stated the page could not be found. Some of the subdomains, such as watch.goldtv.ca, watch.goldtv.info, and live.goldtv.ca, were not loading either. The webpages indicating the Target Websites that could not be reached are attached as **Exhibit CC**.

33. As of August 22, 2019, some of the subdomains of the Target Websites are still accessible, such as portal.goldtv.biz. The webpages indicating the Target Websites that could still be reached are attached as **Exhibit DD**.

34. These findings are summarized in the chart below:

<b>Target Website</b>	<b>Active/Page not loading</b>
<b>Domains</b>	
goldtv.biz	Page not loading
goldtv.ca	Page not loading
goldtv.info	Page not loading
<b>Subdomains</b>	
dtv.goldtv.biz	Active (Password Protected)
billing.goldtv.biz	Page not loading
p1-edge.goldtv.biz	Active (Password Protected)
256.goldtv.biz	Page not loading
portal.goldtv.biz	Active (Password Protected)
p2-edge.goldtv.biz	Active (Password Protected)
watch.goldtv.ca	Page not loading
watch.goldtv.info	Page not loading
live.goldtv.ca	Page not loading
<b>IP addresses</b>	
151.80.96.122	Page not loading
195.154.35.172	Page not loading
51.15.149.83	Page not loading
188.165.45.150	Page not loading
188.165.164.0	Page not loading
185.246.209.218	Page not loading
217.23.1.3	Page not loading

35. As part of the August 22 Search, I also caused a search to be conducted of related websites that are not part of the Target Websites, described below:

- (a) One GoldTV website indicates that some of the Target Websites have indeed been deactivated as of August 14, 2019, and that there are new websites to access GoldTV services. This website is <http://iptvgoldserver.com/changeportal.html>, a screenshot of which is attached as **Exhibit EE**. It states that:

Please note as of August 14, 2019 – the Portal URL for IPTV Gold has changed! The old URL: “http://dtv.goldtv.biz” or “dtv.goldtv.biz” (or other variants) are going to be phased out. You can continue using this URL for a short time, so we want to make it clear this is not an “Urgent Situation”.

The new portal url is: “http://portal.edge.tm” for most devices (MAG devices can use just “portal.edge.tm”)

Nothing will change, all of your settings, favourites, etc. will remain the same, all channels will remain the same. This is just a URL change and will not affect subscribers in any way.

If you know how to change your portal URL, simply update to the above. For help with the URL Change, we've also created detailed set up instructions for users below: ...

- (b) An online “reddit” forum discussion about GoldTV servers that do not appear to be working, at the following URL: [https://www.reddit.com/r/IPTV/comments/cpwy09/goldtv\\_issues/](https://www.reddit.com/r/IPTV/comments/cpwy09/goldtv_issues/), a screenshot of which is attached as **Exhibit FF**. The post at the top of the page, dated August 14, 2019, states “I haven’t been able to connect to their servers all day with my MAG box. Their website also appears to have disappeared from the internet. Anyone know what’s going on?”

(c) The following websites which appear to provide alternative ways to access GoldTV services:

- i. <https://www.goldiptvserver.com/>, a screenshot of which is attached as **Exhibit GG**;
- ii. <http://iptvgoldserver.com/setup-instructions.html>, a screenshot of which is attached as **Exhibit HH**;
- iii. <http://iptvgoldserver.com/contact.html>; a screenshot of which is attached as **Exhibit II**; and
- iv. [https://www.amazon.ca/s?k=goldtv&ref=nb\\_sb\\_noss\\_1](https://www.amazon.ca/s?k=goldtv&ref=nb_sb_noss_1), a screenshot of which is attached as **Exhibit JJ**;

36. In addition, on August 23, 2019, I caused a search to be conducted of the domain hostcenter.ca, mentioned in the affidavit of Yves Rémillard at paragraph 38 (First Injunction Record at Tab 11). This is a shared cloud hosting service that GoldTV appeared to be using for support and services. The unsecure HTTP site (<http://hostcenter.ca>) goes to a blank page, instead of the vibrant cloud hosting service it was previously. The secure HTTPS site (<https://hostcenter.ca>) appears to be deactivated; the page is not loading. A screenshot of these webpages is attached as **Exhibit KK**.

37. It is possible that even though the Target Websites have been deactivated, the GoldTV operators will simply move to new domains, subdomains and IP addresses.

Indeed, the website mentioned at paragraph 35(a) above suggests this is already happening.

38. Below, I describe alternatives to site-blocking that the plaintiffs could use to prevent operators like GoldTV from doing business, whether on the Target Websites, or on new websites to which the GoldTV operators may move.

#### **Alternatives to site-blocking**

39. There are several alternatives to site-blocking that can be used to prevent copyright infringing content online, and which would be less intrusive and sweeping than site-blocking.

40. First, the plaintiffs could attempt to identify the location of the operators of the infringing content. In the First Injunction Record at Tab 11, the affidavit of Mr. Rémillard at paragraph 67 and Exhibit YR-39, states that the GoldTV.ca contact page provides an address corresponding to an apartment building in Toronto, Ontario. The plaintiffs could take steps to identify the offending tenant(s) and perform a targeted take down of their operations.

41. Second, the plaintiffs could prevent the GoldTV operators from doing business in other ways, including obtaining information from the payment service that GoldTV is using. I understand that GoldTV asks its users to pay for services through PayPal, as stated in Mr. Rémillard's affidavit at paragraph 25 (First Injunction Record, Tab 11). The plaintiffs could seek to obtain information about the operators directly from PayPal, which could help them identify their location.



42. The plaintiffs could also seek to have PayPal voluntarily stop processing payments for GoldTV. Indeed, PayPal's Acceptable Use Policy states that "You may not use the PayPal service for activities that: ... 2. relate to transactions involving items that ... (h) infringe or violate any copyright ...". The relevant excerpt of that Policy is attached as **Exhibit LL**.

43. Third, the plaintiffs could seek to find information about the operators through Internet application stores ("app stores") that offer the GoldTV services for purchase. The GoldTV pages on the app stores could provide information about the operators that would assist in identifying their location.

44. The plaintiffs could also seek to have the same app stores voluntarily remove GoldTV-related apps. For example, Google's and Apple's policies include restrictions against apps that encourage or induce infringement of intellectual property: a relevant excerpt of the Google policy is attached as **Exhibit MM**, and a relevant excerpt of the Apple policy is attached as **Exhibit NN**.

45. Fourth, the plaintiffs could contact Cloudflare, a service based in the U.S. that protects websites from threats and attacks and optimizes websites. Cloudflare may have information identifying the GoldTV operators that could assist the plaintiffs in locating them.

46. The plaintiffs could also seek to have Cloudflare voluntarily disable GoldTV's access to Cloudflare's services or terminate GoldTV's accounts. Indeed, Cloudflare's Abuse policy states: "In accordance with the Digital Millennium Copyright Act, Cloudflare will, in appropriate circumstances, disable access to Cloudflare services or

terminate the accounts of users determined to be repeat infringers.” An excerpt of that policy is attached as **Exhibit OO**.

47. Fifth, the plaintiffs could contact the Canadian Internet Registration Authority (“CIRA”) with respect to GoldTV’s domains and subdomains in Canada. CIRA may have information identifying the GoldTV operators in Canada that could assist the plaintiffs in locating them. Alternatively, the plaintiffs could ask CIRA to do its own investigation of the GoldTV defendants. CIRA may have the capability of voluntarily removing “.ca” domains and subdomains. Indeed, the CIRA’s General Registration Rules, an excerpt of which is attached as **Exhibit PP**, states:

**2.5 Responsibility for Selected Domain Name.** It is the Applicant’s responsibility to ensure that... the manner in which the Applicant intends to use, or uses, such Domain Name does not, directly or indirectly: (a) infringe or otherwise violate the copyright... of any person...

...

**11.2 Activities.** CIRA may also delete and/or suspend any Domain Name Registration which directly or indirectly, intentionally or unintentionally, is or may become involved in any of the following activities:

(a) Illegal or fraudulent actions; ...

48. Finally, the plaintiffs could contact the GoldTV phone numbers for support, the GoldTV data centres, and the ISPs for both the GoldTV websites and the live streams, which may enable them to find out more about GoldTV’s operations, and which could assist the plaintiffs in locating the operators.

49. All of these options are less intrusive than site-blocking, because they aim to target and take down the sources of the infringing content themselves, rather than

blocking access to the websites themselves, which ultimately impacts on the third party ISPs and the end users which ISPs serve, as further described below.

### **Harmful Effects of a Site-Blocking Order on TekSavvy**

50. A site-blocking order in the draft form suggested by the plaintiffs at Schedule A to their Notice of Motion, which I have reviewed, would have several effects on TekSavvy.

51. First, the proposed draft order provides that third party respondents such as TekSavvy would be responsible for:

- (a) the cost of acquiring and upgrading the hardware and software required to block or attempt to block access to the Target Websites in accordance with the order;
- (b) providing certain identified information to Internet customers who attempt to access the blocked sites;
- (c) the cost of managing their blocking system, including customer service, and network and systems management; and
- (d) any cost, expense or disbursement beyond the marginal costs of implementation of the order, such as legal fees; other managerial, technical or professional fees or wages; or disbursements for the acquisition or upkeep of any hardware or software.

52. With respect to (a), TekSavvy has the hardware and software to technically perform DNS blocking and IP address blocking, but not URL blocking. There are

various ways to perform DNS blocking, and the permissible methods would have to be specified. As long as the site-blocking could be done using the first two methods, TekSavvy would likely have that technical capacity, subject to further technical analysis. However, TekSavvy does not have a system or the various business processes in place to receive and process blocking orders or to manage, test, implement, and maintain site blocking.

53. With respect to (b), this would require TekSavvy to use DNS re-routing in order to present an information page to the user instead of their intended blocked destination. However, site redirection would almost never be possible on systems using modern secure DNS servers using DNS Security Extensions (“DNSSEC”). TekSavvy’s services use DNSSEC.

54. I understand that the draft order suggests that the plaintiffs would cover the “reasonable marginal cost of implementing” the site-blocking. I estimate that the time to implement the blocking of one website would be one hour, and the time to remove the blocking of a website would be one hour, at an hourly rate of \$75 per website, based on an estimated industry average. For the 19 Target Websites, this means an initial cost of approximately \$1,425.

55. With respect to (c), the cost of managing the blocking system (whether the IP address blocking or DNS blocking) would involve additional hours at the hourly rate of \$75. TekSavvy would have to develop a detailed protocol and procedure for blocking, and it may only be able to affect certain specialized staff – such as its network operations team which comprises 15 to 18 people – to this task. In terms of customer

service, TekSavvy would have to provide notices to customers about site-blocking and would have to field customer queries about the site-blocking.

56. Also, the number of hours spent on managing the blocking system as a whole would almost certainly increase if the plaintiffs supplement the list of websites to be blocked.

57. With respect to (c) and (d) overall, I estimate that it may cost up to several hundreds of thousands of dollars annually for TekSavvy to develop a site-blocking system, to maintain it, and to block sites pursuant to site-blocking orders, including the cost of new full-time resources that would be required to develop and maintain a reliable site-blocking system as a result of additional work caused by the proposed order, and others like it.

58. Second, as mentioned above, once the current Target Websites are blocked, the GoldTV operators will likely move their services to other domains, subdomains and/or IP addresses. Mr. Quek has acknowledged this possibility in paragraphs 93-96 of his affidavit, and as I stated above, this already appears to be happening. According to the draft order, the plaintiffs would be able to unilaterally supplement the list of websites that must be blocked by the ISPs bound by the order once the plaintiffs determine what these new websites are, all without judicial approval. This unilateral supplementing has the potential to overwhelm TekSavvy's human and financial resources, given that operators of infringing content tend to move fairly quickly to new websites. In a matter of months or years, TekSavvy could be faced with dozens or hundreds of new websites to block and monitor, and would likely have to devote additional staff to these tasks.

59. Third, if a site-blocking order is granted, I can foresee that the plaintiffs or other ISPs may seek to obtain other site-blocking orders in the future, whether for copyright infringement or otherwise. In a matter of months or years, TekSavvy could be faced with hundreds and even thousands of websites to block and monitor, and would likely have to devote even more full-time staff to these tasks.

60. Fourth, if TekSavvy were to block the Target Websites, these would be blocked for TekSavvy's entire network, including both residential end users as well as smaller companies who connect to TekSavvy's network. By blocking certain parts of its network, TekSavvy would essentially be selling fragmented Internet connection to these smaller companies. This would place TekSavvy at a competitive disadvantage in the Canadian ISP market, as those small companies could simply move their business to other ISPs that are not bound by the site-blocking order.

61. Fifth, according to the draft order, TekSavvy would have to advise its customers that this site-blocking order is in place. Given that not all ISPs in Canada are bound by this order, TekSavvy's customers could quickly decide to move to ISPs that are not bound by the order, such as Primus, Xplornet and Comwave. TekSavvy would thus lose customers, which would adversely impact TekSavvy's competitiveness in the Canadian ISP market. This negative impact would likely be more strongly felt by TekSavvy, a far smaller ISP than many of the other ISPs that would be bound by this order. Indeed, in the chart of Canadian subscriber numbers for these ISPs in Mr. Quek's affidavit at paragraph 35, some ISPs have subscribers in the millions. These ISPs likely have extensive resources to implement and maintain site-blocking, unlike TekSavvy.

62. Mr. Quek's chart is based on numbers taken from the plaintiffs' and some of the third party respondents' annual reports, of which he has provided excerpts in Exhibits EQ-1 and EQ-2 to his affidavit.

63. An excerpt of the 2018 annual report of the plaintiff Bell Media Inc.'s parent company, Bell Canada Enterprises, showing its annual revenues, is attached as **Exhibit QQ**. An excerpt of the 2018 annual report of the plaintiff Rogers Media Inc.'s parent company, Rogers Communications Inc., showing its annual revenues, is attached as **Exhibit RR**. An excerpt of the 2018 Annual Information Form of the plaintiff Groupe TVA Inc.'s parent company, Quebecor Media Inc., showing its annual revenues, is attached as **Exhibit SS**.

64. Finally, the draft order contemplates that third party respondents would be required to provide advance or contemporaneous notice to the plaintiffs regarding any network work that would affect compliance with the site-blocking order, and an estimate of the duration of the suspension, which cannot be "longer than is reasonably necessary". That is an onerous obligation for TekSavvy's network management team, and is made even more challenging by TekSavvy's reliance on network resources from other companies. TekSavvy would not be able to predict what changes those companies may make that could affect compliance with the site-blocking order, and how long a given suspension would last.

#### **Harmful Effects of a Site-Blocking Order on the TekSavvy's customers and Canadian online Internet users**

65. More broadly, the site-blocking order sought by the plaintiffs would likely affect TekSavvy's customers, and the Canadian public that uses the Internet.

66. First, old domains, subdomains and IP addresses are often re-used by other services over time. The draft order would not allow for TekSavvy to remove the blocking of the Target Websites and/or any new target websites added by the plaintiffs if and when such websites are being contemplated for use by a new service. The draft order does provide for Internet users to bring a motion to vary the order, but such costs would likely be prohibitive for the average Internet user. As a result, very few Internet users would have the means to bring such motions, and the power to seek variation of the order would effectively rest with the plaintiffs.

67. Second, site-blocking can also inadvertently block legitimate content that may be offered by such operators. An operator may offer both infringing and legitimate content on the same website or on different sites hosted on the same server through the same IP addresses. Blocking that website or IP address blocks all of the content provided by that operator, whether or not it is infringing, which results in a type of censorship beyond what would be intended by the order. According to the Internet Society (see Exhibit G):

Every blocking technique suffers from over-blocking and under-blocking: blocking more than is intended and, at the same time, less than intended. They also cause other damage to the Internet by putting users at risk (as they attempt to evade blocks), reducing transparency and trust in the Internet, driving services underground, and intruding on user privacy.

68. TekSavvy has no means of verifying whether any of the content on the Target Websites, or additional websites that could be added to the Target Websites list, is not infringing the copyrights of the plaintiffs. If there is such non-infringing content, in my view the order sought would adversely affect the experience of TekSavvy's law-



abiding customers. As I mentioned above, these customers would effectively have no recourse to seek variation of the site-blocking order.

69. Third, ISPs bound by this order would essentially be selling fragmented Internet connections to smaller companies who connect to TekSavvy's network, as described above. This would disadvantage those small companies in their respective markets, should they choose to remain with those ISPs.

70. Finally, the costs of site-blocking to third party respondents would likely be passed on to end users at least partially, increasing the cost of Internet for Canadians.

SWORN BEFORE ME at the City of  
Ottawa, in the Province of Ontario on  
23rd of August, 2019

D. Debra Lachaine

Commissioner for Taking Affidavits  
(or as the case may be)



(Signature of deponent)

**Debra Ann Burke-Lachaine, a Commissioner, etc.,  
Province of Ontario, for Conway Baxter Wilson LLP s.r.l.,  
Barristers and Solicitors. Expires December 18, 2020.**