Remarks from Adam Scott Vice-Chair, Telecommunications, CRTC

to the Ivey Business School Building Resilience in Telecommunications – In Canada and Beyond

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A Resilient Canada

Good afternoon to everyone here in the room, and to everyone watching and listening online.

I would like to start by acknowledging that those of us in Toronto are in the traditional territory of many first nations. Those nations have lived on, and cared for this land longer and better than we have, and we should learn from them.

I'd also like to thank Professor Erik for inviting me back. Last fall's workshop on broadband policy resulted in some great questions and discussions, and I am happy to see so many familiar faces, as well as a few new ones.

Nous avons avec nous aujourd'hui un grand nombre de personnes très brillantes. Elles viennent de différentes parties du monde et de différents types d'institutions. Nous avons le monde des affaires, le monde universitaire ainsi que le gouvernement. Certains participants apportent des dizaines d'années d'expérience à la discussion, d'autres y apportent le regard neuf de la jeunesse. Il est passionnant d'avoir les deux ici.

If it's alright, I'd like to start my presentation with a quick, interactive component.

Please raise your hand if you think it's important to have substantive, meaningful public discourse about the resiliency of our telecommunications networks.

That's a lot of hands, which bodes well for today's workshop.

Now please keep your hand up if you would enjoy shining a spotlight, in public, on your greatest failures, weaknesses, and vulnerabilities.

A lot less hands.

This concludes the interactive portion of my presentation. You can relax now.

That was to make the pretty obvious point that this is both an important conversation, and a difficult one.

Let's be really honest. Resiliency can be an uncomfortable topic. It involves discussion of sensitive information about network design and vulnerabilities, and it is a highly charged subject because outages hit our lives hard. It's a topic that would be easy to shy away from, both for industry and government.

The truth is that no network is flawless. Canada has some of the highest quality networks in the world, but it's an impossible task to predict and mitigate against every potential failure.

At the same time, the public is counting on us to get this right. And rightly so, because telecommunications services are critical to our lives, and the stakes have never been higher.

Not having access to the Internet or a cell phone when you need it can cost you your dream job; cost you a customer; cost you your life. We use the phrase "a matter of life and death" so much that it has lost its shock value. But it's true.

At a time when our networks continue to grow in complexity, and the threats that we face – including from extreme weather and malicious actors – are as volatile and unpredictable as they've ever been, the consequences of not being prepared are dire.

That's what makes the discussion about resiliency so difficult – the failures are unbearable, but the challenge is impossible.

So where does that leave us?

W.H. Auden once wrote, "time will say nothing but I told you so". It's from a poem I like called *If* I Could Tell You.

If we knew everything that we want to know ahead of time, our job would be far simpler. Unfortunately, as the poem says, only time knows for sure, and it's not telling.

One thing we can definitely do though is learn from the past. If there are limits to our foresight, let's make darn sure we extract full value from our hindsight; to reflect, grasp the bigger picture, and apply those lessons to the here and now.

LOOKING AHEAD TOGETHER

In the meantime, we can and should be looking for proactive, and workable solutions. Operating exclusively in reactive mode, and awaiting the wisdom of time, is not a responsible course of action. We know that new threats and points of failure will continue to emerge.

Some of these I do believe we can plan for. So maybe I'm a little more optimistic than Auden.

To do so, it's important that we work together. The challenges in front of us can seem daunting to face alone, and to even attempt to address these issues, it's critical that we're all pulling in the same direction.

This doesn't mean we can't continue to challenge and hold each other accountable. But we can't descend into bickering that wastes time and energy that could be better used helping people. When we shine a spotlight, it should be to illuminate challenges and reveal solutions, not to shame failures.

The good news is that I think the public, industry, and regulatory agencies, have, generally speaking, common goals.

CONSUMERS

Canadians depend on reliable Internet and cell phone access for participation in modern society. They use it to find employment, learn new skills, keep in touch with family and friends, and to access health care and schooling.

Canadians don't want to see networks go down. Some might consider stability even more important than speed. And when outages do occur, Canadians want to see service restored quickly. No one is sitting at home hoping for an outage so that they can collect \$5 in bill credits. Their first choice, I imagine, is for the eservice they pay for, to just work.

INDUSTRY

Like their customers, no service provider wants to see their network go down either. The cost and time it takes to troubleshoot, restore services, restore reputational damage, and deal with the inevitable complaints, takes away resources that could be expended on other parts of their business.

That's why we see service providers, big and small, continuing to invest in and promote the reliability of their networks. And that's why, when outages do happen, we see them taking action to quickly restore services. Though, customers and regulators may ask, was it quickly enough? Was it avoidable? How will you make sure it doesn't happen again? And those are fair questions.

CRTC

The CRTC, obviously, also does not want to see networks go down. We have a clear directive to consider how our decisions can ensure that high-quality, reliable, and resilient telecommunications services are available in all regions of the country.

I'm glad that we share these common goals. Progress comes more easily when incentives are aligned. But that doesn't mean there isn't space for oversight. I think the CRTC has a critical role to play.

I see three streams to our work that form a comprehensive approach to resiliency.

The first stream is **prevention**: how can we stop outages from happening in the first place, and ensure that our networks are as resilient as possible?

The second is **mitigation**: when outages do occur, how can we mitigate their impact on Canadians?

The final one is **accountability**: once outages are resolved, how do we shine a light on the problem constructively, and how can we ensure that customers are treated fairly?

I'll speak about each of those for a minute or two.

PREVENTION

Starting with prevention. One way the CRTC contributes to this is through our Broadband Fund, which provides funding to help connect underserved rural, remote, and Indigenous communities across Canada to high-speed Internet and cell phone services.

When we launched our latest call for applications, we announced that we would be giving increased weight at the assessment stage to projects that improve overall infrastructure resiliency.

Under our current policy, projects that **only** address resiliency, without also adding coverage and speed, fall outside the scope of the Broadband Fund.

However, whether we should expand the scope of funding to cover projects that do just that is something we are considering in our current review of the Broadband Fund policy.

Government already invests in high-speed networks where the business case is challenging. Should we also invest in a network's ability to withstand fibre cuts or equipment malfunctions, radio failures due to weather, power failures, and natural disasters? That's a good question.

MITIGATION

In a perfect world, network failures wouldn't be a concern. But we're not in a perfect world. We also have to focus on the second stream: mitigating the impact of those outages that do occur. Because we know they will.

During an outage, I suspect we all agree that ensuring access to emergency services is the most important task. A lack of access to these services can have severe consequences, so it's essential that their restoration is prioritized.

Last year, we introduced an interim measure requiring carriers to notify the CRTC within two hours of a major service outage. This information allows us to help coordinate and inform those who urgently need to know about an outage, like 9-1-1 call centres, and emergency management offices, so that they can maintain communications with the public.

We also required carriers to file a comprehensive post-outage report with the CRTC within 14 days.

We focused on ensuring a balance between prioritizing restoration of services, and ensuring that relevant government authorities have sufficient information to allow for regulatory oversight.

Since introducing these requirements, we've received more than 35 post-outage reports.

Following our public consultation, we're now in the process of finalizing a decision on whether to introduce these, or similar notification and reporting measures on a permanent basis.

We need to ensure that service providers and their expert technicians have the time and space to respond to the immediate crisis, and to begin restoring services as quickly as possible. And our role as a regulator is not to get in the way of that process.

This means that reporting requirements need to be efficient and effective. They should provide enough information to allow us and other government authorities to fulfill our roles, supporting the task at hand, rather than distracting from it.

ACCOUNTABILITY

Finally, accountability.

The information we're gaining through our analysis of outage reports will create opportunities to work with service providers to introduce broader measures that can help prevent similar outages from reoccurring. That's one form of accountability.

The government's policy direction directs us to enhance and protect the rights of consumers by providing for consumer protection measures in the event of a service outage or disruption. That's another form of accountability.

We have already announced our intention to initiate additional network resiliency proceedings that may cover accountability from the perspective of things like consumer communication, consumer compensation, and the imposition of administrative monetary penalties.

Consumer compensation in particular is a hot issue. It speaks directly to the notion of fair treatment of consumers. It also opens a door to discussion about just how well-aligned incentives are between providers and consumers, and whether financial incentives might, or might not, be a useful or necessary tool.

We will have more to say about upcoming proceedings soon. Stay tuned.

CONCLUSION

That's an overview of some of the work that we've been doing at the CRTC. But we're just a small part of a much broader discussion. This is far from a narrow topic, and I'm looking forward to hearing the perspectives from other countries and from industry.

As the regulator, sometimes I feel bad that I can't answer everything you'd like me to. And sometimes I feel relieved – because to use another W.H. Auden quote, "to ask the hard question is simple [...] but the answer is hard, and hard to remember."

So, I appreciate being the lead off speaker, where my job is just to get the discussion rolling. And in that spirit, here are a few discussion questions I will throw out there:

- Beyond consumer compensation requirements, what are some other ways of further incentivizing service providers to improve the reliability and resiliency of their networks?
- What role should regulation play in the context of networks outages that are not necessarily the fault of a service provider, for example, those caused by widespread power outages?
- How do we distinguish between necessary redundancy and inefficient duplication?
- How can regulatory measures or minimum resiliency standards keep up with the everchanging presence of network threats and risks?
- How many WH Auden references is too many for a Telecom speech?

Thanks again for having me here today. Just like I started my remarks, I'll ask folks to raise their hands one more time, if there are any questions.