

Robert Ghiz, CWTA President & CEO **Keynote Remarks: “Setting the Scene”**

Huddle 2022: 5G and Beyond – The Wireless World in 2030

Tuesday, May 10, 2022
9:10 to 9:25 a.m. Eastern

Good morning and thank you for having me here today.

I am pleased to welcome you to Ottawa, our nation’s capital, for the Wireless World Research Forum’s Huddle 2022.

Bonjour et merci de l’invitation. Je suis heureux d’être parmi vous aujourd’hui. J’ai l’honneur de vous accueillir à Ottawa, capitale nationale du Canada, pour assister à Huddle 2022, la grande messe du sans-fil organisée par le Wireless World Research Forum.

I’d like to begin by acknowledging that Ottawa is located on the traditional unceded territory of the Anishinaabe Algonquin People whose presence reaches back to time immemorial.

The Canadian Wireless Telecommunications Association is honored to be the Canadian partner for Huddle 2022. The last time the World Research Forum held a Huddle event in Ottawa was in 2017. It was Canada’s 150th birthday, and I had just taken up my post as President and CEO of CWTA. At the 2017 Huddle event, we talked about the fundamental changes 5G will bring to businesses, society, and the everyday lives of the world’s citizens. Our focus was on the transition from 4G to 5G, and what needed to be done to lay the foundation for the widespread adoption of 5G.

A lot has happened since then.

Ces deux prochains jours, nous discuterons ensemble de l’avenir des télécommunications sans fil, et notamment de la 6G et de ce qui viendra ensuite. Certains d’entre vous se demandent sûrement pourquoi parler de la 6G alors que le déploiement de la 5G vient à peine de commencer. Si vous me permettez, je vais puiser dans mon expérience de la politique pour répondre à cette question.

Over the next two days, we will be discussing the future of wireless communications, including 6G and beyond. Some people may ask: “Why are you talking about 6G when the rollout of 5G has just begun?” If you’ll indulge me, I’d like to draw on my political experience to answer this question. As some of you may know, I previously served as premier of Prince Edward Island, one of Canada’s maritime provinces.

As premier, much of my time was occupied dealing with the immediate issues of the day. But governments, as well as businesses, cannot just look at what is happening in the moment. We must also turn our minds to the future because the decisions we make today set the course for tomorrow.

But when we are facing urgent and all-consuming issues, like a global pandemic or widespread inflation, it can be difficult to look beyond the immediate crisis and convince people to think about how we want the world to look in 2030 and beyond.

Fortunately, the telecommunications industry has a long tradition of looking to the future. Yes, our members work hard every day to deliver the highest quality services, but they also plan and invest for the future. I can't think of better evidence of this than what we experienced at the outset of the COVID-19 pandemic.

Businesses and schools had to go online overnight. Governments had to find new ways to deliver critical services. Healthcare services were put under incredible stress and non-urgent care had to increasingly rely on virtual consultations. Digital networks were tested by huge increases in network traffic and changing usage patterns.

A survey we conducted of Canadian carriers during the first half of 2020 found that on a typical day wireline download traffic increased by as much as 50%, while upload traffic was up by as much as 70%. For wireless, download traffic increased by as much as 44%, with upload traffic increasing by as much as 52%. Importantly, these were not peak usage measurements but daily measurements. Peak usage was even higher.

In the face of these sudden increases in network traffic, our digital networks proved their resiliency. They did not break under the strain. And because of this, Canadians were able to sustain and transition much of our economic and social activity to the online world. But the strength and performance of our digital networks during the pandemic was not the result of good fortune or luck.

It was the result of years of planning and innovation; the kind of planning and innovation that we will be talking about at this conference. It was also the product of significant private sector investment. In Canada – we are blessed with many advantages. But when it comes to building digital networks, we also face significant challenges that make network building an expensive and difficult undertaking. These challenges include a vast land mass with a low population density, challenging terrain, and a short building season.

In the face of these obstacles, our wireless network operators have invested over \$83 billion in capital expenditures and spectrum fees to build what are regarded as some of the best wireless networks in the world. On the wireline side, facilities-based service providers have invested more than twice that amount. It is these investments, together with years of investing in research and development by carriers, as well as technology providers and academic institutions, that gave us the digital infrastructure that supported Canadians throughout the pandemic.

I'm sure those of you from other countries have similar stories to tell about the relationship between investment and network performance in your country during the COVID-19 pandemic. Before the pandemic, I would sometimes hear people question the need for this level of investment. They would say that we don't need the best networks, we just need networks that perform adequately. Thank goodness we didn't listen to them. Imagine where we would have been if our digital networks were not able to handle the sudden surge in digital traffic caused by the COVID-19 pandemic.

Yet, I'm sure some of you have heard the same thing about 5G: "Why pour so much time and money into 5G? 4G is good enough." "And now you want to talk about 6G?"

In Canada, we often use ice hockey analogies to make our point. An often-used analogy is that to succeed in hockey you must skate to where the puck is going, not to where it has been. The same is true in telecommunications. Yes, 4G is great. Canada has been called a “4G superpower” by independent analysts, Opensignal, and has some of the fastest 4G networks in the world, including in rural areas. But like previous generations of wireless technology, 4G has its limitations. To keep pace with the demand for wireless services and to support new experiences and use cases, a new generation of wireless standards was needed.

Consumers are already seeing the kind of experiences that 5G can offer, such as 5G sports viewing services that provide fans with new ways of watching the action. For businesses, 5G will enable the shift to Industry 4.0, where together with complementary technologies like AI, cloud computing, and the Internet of Things, industry and government will be able to increase productivity, operate more safely, and create innovative products and services.

Faster speeds, more bandwidth, ultra-reliability, and lower latency make 5G a key enabler for advances in areas such as smart factories, agriculture, remote healthcare, and connected transit. While the technological advances of 5G are exciting, the real measure of its importance – and why we must continue to invest in advanced technology – is its contribution to economic growth and to the well-being of society.

It is estimated that the adoption of 5G will result in an additional \$40 billion in GDP to Canada’s economy by 2026, and the creation of an additional 250,000 fulltime jobs in that same period. 5G will also help close the urban/rural digital divide in Canada and elsewhere. While the vast majority of Canadians have access to world-class wired and mobile broadband, there remain some communities that do not have adequate internet access.

These communities are the hardest to serve, where running fibre to the home is cost prohibitive. Fixed wireless internet services have been around for several years and are already providing rural and hard-to-serve communities with reliable internet service. However, 5G fixed wireless service promises to provide even better performance. This will allow for greater participation in the digital economy by individuals and businesses in these communities.

5G also has an important role in tackling climate change. As consumer demand increases, we will need to densify networks which necessitates the use of more efficient network equipment. In this regard, it is estimated that over the next 10 years, 5G will support a thousand-fold traffic increase, while the full network’s energy consumption will be only half of current levels.

5G will also help other industries reduce their carbon footprint. A report commissioned by CWTA estimates that the use of mobile technologies, including 5G, across industries has the potential to address up to 23% of Canada’s total 2030 emission reduction targets. As with previous generations of wireless technology, the capabilities, and benefits of 5G are the result of years of collaboration and planning.

To be talking about the world beyond 5G is not a novel approach. Our industry has always been looking ahead as the pace of innovation continues to increase. But as we discuss the future of 5G and beyond, it is important to remember that innovation and the adoption of advanced technologies does not happen in a vacuum. Government policymakers have an important role to play in setting the conditions for the development and adoption of the technologies and use cases we will be discussing over the next two days.

The deployment and operation of next-generation networks is a laborious and expensive undertaking. GSMA estimates that on a global basis, the deployment, and ongoing costs of 5G will be up to 71% more expensive than previous network generations. Meanwhile, Accenture has estimated that the initial phase of 5G deployment in Canada will require \$26 billion in capital investment by 2026. A stable regulatory environment that continues to incentivize investment in innovation and network building must be maintained if we are to realize the benefits of 5G and future generations of wireless technology.

Regulations must also be flexible. Uncertainties remain about how the use of 5G will evolve. It has been said many times that we don't yet know what the "killer app" for 5G will be. 5G provides a much richer set of capabilities upon which innovators can create new products and services. Policies that hamper service providers' ability to support and provide these new products and services will reduce the value of 5G and lessen the incentives to invest in network innovation and expansion.

I'm mindful of the time, so I won't continue down the regulatory path, except to ask you to always keep in mind that the incredible technologies and future use cases being discussed here can only be fully realized if policy makers maintain a regulatory environment that fosters investment in innovation and network building and encourages the adoption of advanced digital technology.

Over the next two days, we're going to hear more about the role of 5G and beyond in transforming business and society. I won't take you through the entire two-day program, but I trust you agree that we have an incredibly interesting and diverse set of topics and speakers, and I congratulate the organizers of Huddle 2022 for the program they have put together.

I also want to thank all of you.

I am proud of what our sector has accomplished in keeping people connected, working towards our sustainability goals, and making critical economic contributions. Each of you has played a part in these accomplishments.

We can't predict everything about the future, but I feel confident saying this: the future is bright. And the future depends on connectivity.

– End of Remarks –