



SSi Micro Ltd.

**Presentation to the House of Commons
Standing Committee on Industry, Science and Technology**

- Study on Broadband Connectivity in Rural Canada

***BROADBAND AS THE NEW BASIC SERVICE:
LOCAL TALENT NEEDS A SHARED BACKBONE AND OPEN GATEWAYS***

Room 325, Wellington Building, 197 Sparks Street
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(Check against delivery)

BROADBAND AS THE NEW BASIC SERVICE:

LOCAL TALENT NEEDS A SHARED BACKBONE AND OPEN GATEWAYS

1. Good afternoon. My name is Dean Proctor and I am the Chief Development Officer of SSi Micro Ltd. I want to thank the Committee for this opportunity to contribute to your study and to discuss plans on how to improve rural and remote area broadband connectivity.
2. I will provide a brief overview of SSi and our operations in the North, but my focus is on the policies we believe will sustainably improve connectivity for all of Canada's remote and rural areas. Those policies will let local talent contribute their ingenuity, creating truly Canadian-made - and Northern-made – models that can be exported around the world.
3. First and foremost, we believe that in order to deliver attractive and affordable rural and remote-area broadband the policy framework must support developing local talent which rests on three well-established principles: i) competitive and technology neutrality; ii) a focus on funding backbone infrastructure; and iii) open access for all service providers to the backbone and gateway facilities.
4. I am happy to say that ISED and the CRTC have already begun to implement many of the needed policy changes since this Committee began its work. But more needs to be done. And it's increasingly apparent that government and industry must defend the good work and changes already underway.

WHO WE ARE

5. So, who is SSi? Formed and headquartered in Canada's North, we are a family company, launched 28 years ago by Jeff and Stef Philipp. Our roots go further, to the Snowshoe Inn, from which SSi has its name. The Inn was founded over 50 years ago by Jeff's parents in the Northwest Territories community of Fort Providence.
6. We specialize in remote-area connectivity, providing broadband, mobile and other communications services across Canada's North. We have also carried out projects in Africa, the South Pacific and South-East Asia.
7. Our mission is to ensure that all Northern communities have access to affordable, high quality broadband. To achieve this vision, we have invested heavily in facilities and infrastructure.
8. In 2005, SSi built and launched the "QINIQ" network to provide affordable broadband to all 25 communities in Nunavut. Investments by the Federal Government covered part of the initial costs of satellite transport and infrastructure.
9. Since then, we have co-invested with Canada over \$150 million into Nunavut infrastructure, and we have paid over \$10 million to our community service providers, local agents who are key to our success in all of Nunavut's 25 communities.

10. In September 2015, we announced a \$75 million investment in Nunavut's broadband future, which included \$35 million from the Government of Canada's Connecting Canadians Program for the purchase of satellite capacity. SSi has directly committed \$40 million for additional satellite capacity and network-wide upgrades to both the backbone and last mile infrastructure throughout the Territory.

QINIQ BROADBAND & SSI MOBILE VOICE AND DATA:

ALL COMMUNITIES SERVED EQUALLY

11. QINIQ improved the lives of Nunavummiut by providing access to cost-effective broadband. This was previously impossible; before 2005 most users had no access at all to broadband infrastructure. With QINIQ, for the first time every Nunavut community had affordable Internet access for the same price, immediately allowing consumers access to the digital age.
12. Now, with our latest investments, we are delivering another first: As of February 1, Clyde River and Chesterfield Inlet residents have access to mobile voice and data services for the first time ever. Until now, the vast majority of Nunavut has had no access to mobile services.
13. We have completed the SSi Mobile deployment throughout the Territory, and all residents will soon benefit from the latest generation 4G LTE technologies, with the same service level and pricing available in every community.

14. The new 4G-LTE system enables high-performance broadband, mobile voice and data, telemetry, video conferencing, and more. It is also offering, for the first time ever, a less expensive and more versatile alternative to the old wireline phone. And to make the service truly unique, we have eliminated long distance charges between communities in Nunavut, bringing families closer together.
15. Our company is on the front lines. We know, and live daily the positive impact of information technology and we see the positive impact of our investments for consumers, organizations and small business in Nunavut.
16. Unfortunately, over the last few years, the ever-increasing rates of data transfers, and the corresponding demand for scarce backbone capacity, have presented significant challenges to Arctic telecommunications systems. Where once we made great strides to close the gap we are again seeing the digital divide deepen between Canada's North and the south of the country.

THE OBJECTIVE: BROADBAND AS THE NEW BASIC SERVICE

17. Investing in better last-mile technology is an essential step to improve rural and remote-area connectivity. To be clear – we have deployed last-mile infrastructure into every Nunavut community that can deliver the same quality of broadband and mobile service as you find in downtown Ottawa.

18. But to ensure that Northerners receive the full benefit of these new last-mile technologies, significant additional investments into wholesale backbone capacity are urgently needed.
19. In this regard, December 2016 was a pivotal month for the evolution of telecom policy in Canada. New policies recognize that broadband access is essential and establish major program changes and new initiatives for public investments in backbone infrastructure.
20. These advances are important – and we believe need to be recognized, promoted and protected by this Committee. Together, these policy initiatives build a path that will let local talent shine by refocusing away from exclusive support to the phone companies, which, despite a century or more of public support, have failed to deliver broadband to many Canadians in remote and rural areas.
21. The challenge now is not to repeat or perpetuate past mistakes. If there are to be public investments into rural and remote area communications infrastructure, and we believe there should be, the investment process must be transparent, and the funded infrastructure needs to be open to all in order to support competition, further investment, innovation and consumer choice.
22. On December 15, 2016, ISED launched its Connect to Innovate Program. For the first time, public funds were dedicated to developing open access backbone networks, to be made available on a wholesale basis. Susan Hart, ISED's Director General for the Program, met this Committee last November.

23. SSi wholeheartedly supports the open backbone approach. When public investment focuses on backbone infrastructure and requires that it be made available on a wholesale basis, it encourages further private investment and innovation in the last mile by companies like SSi. This leads to a choice of technologies, service providers and opportunities for consumers.
24. This is important: as SSi has proven in Nunavut and elsewhere, quality local access networks can now be built in remote areas largely due to advances in technology, in particular, wireless and IP technologies.
25. One week after ISED's CTI Program was launched, the CRTC issued a fundamental new policy framework (TRP 2016-496), overturning the old system that subsidized a monopoly copper voice system. Broadband is the new basic telecommunications service, and all Canadians, no matter where they live, should have access to broadband on both fixed and mobile networks. Chris Seidl from the Commission presented the new framework to you last November.
26. The CRTC is also supporting the availability of universal broadband by establishing a new fund to assist ongoing deployment and operation of facilities in rural and remote areas.
27. These are significant and positive changes to public policy and the regulatory framework by ISED and the CRTC. We hope this Committee will lend support and endorse those aspects that advance local initiative: that is, open gateways and backbone investment.

THE QIMIRLUK SOLUTION – SHARED BACKBONE AND GATEWAY FACILITIES

28. However, as is often the case, the devil is in the details. We have to ensure the policies are enacted as intended, and that inertia, neglect and incumbency do not bring us back to a world of an end-to-end monopoly, where incumbent phone companies receive all the public funding, restrict competitor access to their publicly funded networks, and thereby squeeze out further investment, innovation and consumer choice.
29. We hope your study will hear how developing local talent can be the engine that makes broadband accessible to all Canadians. And we hope that you will recognize how the three principles I mentioned earlier are necessary to support that local talent. Those principles are:
- competitive and technological neutrality;
 - funding focused on the backbone; and
 - open gateways, meaning that all local service providers must be offered open and affordable access to backbone connectivity.
30. We are especially concerned you not endorse proposals that would permit parties – like the phone companies – who happily apply for and take public funding to then turn around and undermine the basic requirements for that funding.
31. And in particular, we hope you will recognize it is essential to require those companies to provide just and reasonable wholesale access to any backbone

facilities they build. The alternative reinforces monopoly – and, when we’re talking about the backbones that support local access to the internet, with the ever-increasing demand for bandwidth, any argument that would restrict access to a publicly funded backbone to one firm and its affiliates just doesn’t make any sense.

IN SUMMARY: WHAT IS NEEDED

32. Though we’ve come a long way, much still needs to be done to improve rural and remote-area connectivity in Canada. Last-mile infrastructure in remote communities, such as that deployed by SSi, can now often match what’s available in southern Canada.
33. But the continuing barrier to better broadband is the backbone transport connecting those same remote communities to the rest of the world. This reality effectively disenfranchises Northerners and many rural Canadians from the digital democracy.
34. The policy and regulatory framework needs to encourage ongoing private investment, it needs to best leverage public funding, and it needs to ensure Canadians across this country – in particular remote and outlying areas – have access to high quality, affordable and innovative communications infrastructure.
35. If we successfully continue upon the path of substantive reform begun by ISED and the CRTC, focusing on investing and enforcing open backbone and gateway infrastructure, local training, and local innovation and competition, Canada can be a

global showcase, where broadband overcomes the barriers of distance, and where all regions of the country – no matter how remote – benefit from and participate fully in the digital economy.

36. Thank you for giving SSi the opportunity to present today, and I would be pleased to answer any questions you may have.

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