



**Submission of Shaw Cablesystems G.P. to
*Pre-Budget 2017 consultations: The Innovation Budget***

August 5, 2016

Introduction and Executive Summary

1. Shaw Cablesystems G.P. (Shaw) is pleased to provide these recommendations to the Department of Finance's pre-Budget 2017 consultations. As Budget 2017 has been styled the *Innovation Budget*, Shaw recommends that the Government leverage this opportunity to foster economic growth through measures that (i) *increase connectivity for Canadian communities*, and (ii) *incent technology adoption by small and medium sized businesses in Canada*.
2. The strength of Canada's economy depends on the degree and pace at which we harness the *Investment and Competition Cycle*: innovation and competition depend on world-class digital infrastructure; world-class digital infrastructure depends on investment (including in areas where there may not currently be sufficient market-based economic incentives to do so); investment depends in turn on a policy framework that encourages innovation and competition – i.e. a policy framework that leverages the Government's resources, and that removes impediments to competition, deployment and monetization of infrastructure.
3. Shaw's recent pivot to a connectivity company is an example of this cycle in action. Over the course of the last two years, Shaw has completed a series of strategic transactions –acquiring wireless assets and data centres, and transferring broadcast media assets to our sister company Corus—shifting our focal point from a vertically integrated media company, to a connectivity company.
4. As a connectivity company, Shaw exists to connect our customers to the world and everything in it. Shaw recognizes that a lot of attention has been focused lately on some of our competitors' Fibre to the Premise and Fibre to the Household products. However, we respectfully note that it will take those competitors up to 10 years to lay enough fibre to homes to catch up to where Shaw is today. We have invested over 2 million engineering hours to build a fibre network that spans over 860,000 km across Canada and the USA.
5. At Shaw, our hybrid fibre optic coaxial network, now provides one of the fastest speeds available, enabling Internet speeds of 1GB and more. Moreover, Shaw offers its fastest network speeds across our footprint, in both rural and urban areas.
6. Shaw's brand promise is that our customers will not miss a thing, and our investments and innovations are designed and driven by what we learn from our close relationships with our residential and business customers. Drawing on this experience, Shaw respectfully submits that economic growth and innovation in

the digital age depend in large measure on building and augmenting digital infrastructure to connect communities, then leveraging that infrastructure to help businesses scale up and grow.

7. Budget 2017 can foster innovation and competition in Canada by ensuring we focusing on economy-wide digital development and adoption. Specifically, by:
 - i. Encouraging investment in high capacity fibre-optic transport links that connect Canadian communities;
 - ii. Removing regulatory barriers to the deployment of next-generation network infrastructure across Canada; and,
 - iii. Streamlining red-tape to encourage technology adoption by small and medium-sized business in Canada (SMBs).

Encouraging investment in high capacity fibre-optic transport links that connect Canadian communities

8. With 97% of Canadians at the CRTC's target speeds of 5Mps/1Mps, Canada's broadband success story is the result of a combination of market forces, targeted subsidies, and a policy framework that encourages competition and choice. In the vast majority of markets in Canada, market forces can be relied on to ensure that Canadians have access to high quality, fast and reliable broadband. However, there is an availability gap, which persists in areas difficult to serve solely on a ROI basis.
9. This gap hampers the ability of businesses in those regions to compete in a digital world, and primarily relates not to broadband access but to broadband transport (commonly understood to mean a high capacity fibre optic transport link that connects to communities, and from which a local access network is then built out to individual homes and businesses).
10. Incenting private sector investment in the transport layer of broadband networks will increase the quality, capacity, reach and reliability of broadband networks in all regions of the country. It will allow innovative solutions for closing the availability gap, and will propel last-mile connectivity applications and services, in both rural and urban areas.
11. Moreover, by synching levels of public investment in transport networks to open-access requirements, the Innovation Agenda can incent not only connectivity, but competition. For example, where an Internet Service Provider (ISP) bears responsibility for a percentage of the cost of a project, it would only have exclusive use of dedicated capacity proportionate to its level of investment.

Competitive ISPs would have access rights to a percentage of the capacity proportionate to the publicly financed portion of a transport link. This measure would reduce the level of subsidy requested for projects, and would encourage competition at the same time as it encourages connectivity.

RECOMMENDATION: Building on the success of previous *Broadband Canada* and *Connecting Canadians* programs that focused primarily on the access/household layer, Budget 2017 should clarify that the \$500 million committed in Budget 2016 to broadband investment will be styled the *Connecting Communities* fund, and will invest in the transport/community layer, and that it will adopt open-access principles to encourage competition as well as connectivity.

Removing regulatory barriers to the deployment of next-generation network infrastructure across Canada

12. Leveraging the Government's investment in broadband by focusing on high-capacity fibre-optic transport links will help connect some of the hardest to serve areas of the country. At the same time, there is a parallel opportunity to improve network operators' access to physical support structures necessary to build those networks.
13. In many rural and remote areas connecting fibre optic cables to electrical and utility poles is far more efficient than burying them over hundreds or thousands of kilometers. The owners of those poles tend to be municipal or provincial electrical utilities. The rates charged to network providers for access to those poles are set by the owners, using vastly differing methodologies, are prone to periodic, exponential price hikes, all of which ultimately weakens the business case for investing in new broadband networks in rural and remote areas.
14. Per-pole rates vary wildly from one jurisdiction to the next. Each jurisdiction has its own methodology for setting rates, at different times, using a different process, based on different inputs and criteria. This uncertainty complicates operational planning when it comes to building and maintaining inter-provincial networks, and ties up much-needed resources in simply dealing with the accompanying multi-jurisdictional volume of red tape.
15. Further complicating access to support structures is a dispute mechanism adjudicated by provincial utility boards, who have no mandate to advance broadband connectivity or innovation.

16. Despite the operational necessity of ensuring that national and inter-provincial network operators have access to these support structures, access to support structures is the only element of critical telecommunications network operations not currently subject to federal oversight.
17. Recently, network operators have faced unexpected and exponential increases to the rates charged by support structures owners. For example, the Ontario Energy Board recently approved a more than tripling of the rates charged by Ontario electrical utilities for access to their poles. Every dollar demanded by a provincial utility for access to their poles is a dollar that is not available to extend broadband to underserved areas, or to increase network speed and capacity in existing coverage areas.

RECOMMENDATION: Through Budget 2017, section 43(5) of the Telecommunications Act should be expanded to regulate access by network operators to support structures of all support structure owners, including provincially regulated utilities, and empowering the CRTC to resolve related disputes. With this minor legislative amendment, the Government can vastly simplify an over-complicated regulatory patchwork, and directly incent investment in broadband networks in hard to serve areas across the country.

Streamlining red-tape to encourage technology adoption by small and medium-sized business in Canada (SMBs)

18. The focal point for Canada's economic growth in coming years will be the Small and Medium Business segment (SMB). The 2016 World Economic Forum Jobs Report states that nothing will have a greater impact on job creation in the digital economy than mobile internet and cloud computing.
19. To grow their businesses, SMBs require the connectivity, capacity and capability to reach customers, control costs and grow operational efficiency. To graduate from the critical incubation period SMBs need connectivity of all kinds, they need application development, and they need security protocols. As obvious as this seems in theory, in practice many SMBs are put off by the perceived expense and complexity of adapting their business models to take advantage of new technology. To get them past this obstacle to growth, to get to market quickly and to scale up for global competition, SMBs need easy to understand, easy to use, scalable platforms that can grow as they do.
20. Policy makers have long wrestled with how to accelerate innovation by incenting small businesses to invest in new technology. Shaw has responded to this challenge by developing a range of business service bundles that combine fibre

internet, carrier-grade WiFi, secure connectivity, colocation and cloud services, voice solutions, customized application development, and streaming broadcast video – all available to our small business clients size as a single, highly flexible, bundle that can scale and expand as their business needs change. By reducing complexity and increasing flexibility around small business connectivity, Shaw makes enterprise-level technology available to start-ups and SMBs from day one, while eliminating vast amounts of IT overhead from their day-to-day operations.

21. The Government of Canada has a similar opportunity, through Budget 2017. There are currently 20 individual federal programs, administered by no fewer than 13 departments and agencies, with a combined budget of approximately \$2.03 billion, all with a mandate, in whole or in part, to incent technology adoption by various segments of the small business sector. Each program has its own website, its own application process and criteria, its own timelines, its own targets, its own reporting mechanisms. And despite previous efforts to create portals and search engines to help small business operators find the program best suited to their business, weeks of research and application filing by a small business operator would be necessary to ensure that no opportunity is overlooked. Ironically, programs designed to enhance small business efficiency are all but impenetrable in their current complexity and duplication. Small business owners do not have the time or resources necessary to navigate the sprawling constellation of federal programs designed to incent technology adoption by small business owners.
22. The Government of Canada's twenty-pronged approach to this policy problem contrasts poorly with the far more efficient and effective approach in the United States. There, Congress recently approved a permanent program to allow new businesses to write off, in their first year of operation, their first \$500,000 in capital technology expenses (replacing numerous programs, and moving away from a long-term depreciation model whose benefits were much diffused over a longer time frame, and that required considerably more accounting and red tape to implement).

RECOMMENDATION: Through Budget 2017, all federal small business-targeted technology-adoption incentive programs should be combined, and their fiscal resources pooled into one new simple, easy to use program that would incent scale-up by a new business: for example, start-ups could write off 100% of capital technology purchases up to \$50,000 for in the first three years of business, up to \$75,000 in the fourth-sixth years of business, and up to \$100,000 in the seventh-tenth years of business. This measure will incent small businesses to plan their growth around investments in technology, and will simplify the administrative burden on line departments, central agencies, and small business operators.

23. Shaw appreciates the opportunity to provide these comments and recommendations and looks forward to appearing before the Finance Committee as part of its Pre-Budget 2017 hearings in the Fall.