
REPORT TITLE: Public Sector Network: Opportunities for Use by the Private Sector

FROM: Sean Baird, Commissioner of Digital and Information Services

RECOMMENDATION

That the Public Sector Network's (PSN) proposed approach to handle new revenue opportunities, as outlined in the report of the Commissioner of Digital and Information Services titled, "Public Sector Network: Opportunities for Use by the Private Sector", be endorsed;

And further, that staff report back to Regional Council should a PSN private sector opportunity become available.

REPORT HIGHLIGHTS

- The Public Sector Network (PSN) has significant unused fibre capacity, with only approximately one-third of existing fibre currently being used.
- Under the PSN Owners' Agreement, only public sector organizations are eligible to access and use the PSN in Peel; direct use of PSN by the private sector would require revising the PSN Owners' Agreement.
- Some surplus capacity could be made available to the private sector, through "sale, rent or lease" provisions of the Owners' Agreement.
- Potential revenue from making surplus PSN fibre available to the private sector for a defined lease rate is unknown but is not considered to be substantial.

DISCUSSION

1. Background

The Public Sector Network (PSN) annual report was presented to Regional Council on June 13, 2019. Staff were directed to explore opportunities to generate additional revenue for the PSN owners (municipalities) by making excess bandwidth available for private sector use, while ensuring current users are not negatively impacted.

Established in 1996, the PSN was created principally to meet the needs of its owners (Region of Peel, City of Mississauga, City of Brampton and Town of Caledon) by providing low-cost high-speed telecommunications between municipal facilities. Although other municipalities in Ontario and across Canada have also installed municipal fibre to connect their facilities, PSN has been a leader in this regard as one of the first and still the largest municipally owned network in Canada.

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A conservative analysis calculates that PSN has generated over \$100 million in savings for the owners over its 20+ years of operation – all for a cumulative investment of \$25 million by the PSN partners. This investment will continue to provide savings estimated at up to \$10 million annually for the immediate future.

The initial backbone ring, connecting Peel and Mississauga, was completed by 1998. Since that time, the network has been expanded each year and now comprises more than 800 km of fibre and almost 50,000 strand kilometers.

The initial backbone was built using 96-strand fibre, with spurs and secondary rings ranging from six to 48 strands. More recent backbone sections have 144 or even 288 strands of fibre. In addition to providing for future needs, these fibre counts reflect that the cost of construction is up to 90 per cent labour. Incremental costs for doubling strand count are marginal, adding perhaps five per cent to the overall costs. On this basis, it is prudent to ensure that PSN doesn't run out of capacity, such that there would be a need to rebuild a section.

A recent audit of fibre usage shows that about one-third of available strand-kilometers are in active use. This ranges from quite low usage in some areas to other areas where there are at or near full usage.

In recent years, connection of non-traditional "nodes", such as traffic controllers, bus shelters and Supervisory Control and Data Acquisition (SCADA) sites, have benefited from available PSN capacity. In the future, emerging "smart cities" infrastructure, with its array of sensors and cameras, will draw further on capacity that might today appear to be surplus.

2. Findings

a. Use by the Broader Public Sector: Subscribers and Constituent Agencies

The Public Sector Network (PSN) Owners' Agreement specifies that only public sector organizations are eligible to access the network. Limiting access to public sector organizations is consistent with the purpose for which PSN was built – to reduce costs and improve efficiency of providing public services in Peel. It also avoids placing PSN in competition with private sector carriers providing telecommunications-based services to businesses and residents.

In addition to use by the owners (Region of Peel, City of Mississauga, City of Brampton, Town of Caledon), access to PSN is made available to:

- **Constituent Agencies:** Any public sector organization to which Peel or any local municipality appoints members to its board. Constituent agencies pay the capital costs to connect their sites but receive free access to existing PSN fibre once connected. As examples, Peel Regional Police, Peel Housing Corporation and Credit Valley Conservation Authority are constituent agencies of the Region and make use of PSN.
- **Subscribers:** Organizations from the broader public sector or "organizations whose principal purpose is to provide publicly funded services". Subscribers are eligible to access PSN for a defined fee structure, upon entering into an Access Agreement with the PSN owners. Current subscribers include Sheridan College, William Osler Health System and Trillium Health Partners. In the past, the University of Toronto (Mississauga Campus) and MTO have been subscribers.

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Historically, PSN approached both the Government of Canada and the Province of Ontario regarding using PSN to connect their facilities within Peel. However, both were committed to other arrangements and suppliers to address their broader telecommunications needs.

Similarly, both school boards in Peel were approached regarding PSN usage. However, after considerable discussion, the school boards entered into a contract with private sector providers in 2002 to connect all schools within Peel. Recent approaches confirm that this contract is still meeting the needs of the boards.

Given the above, opportunities for PSN to increase revenue from additional public sector usage is limited. Existing subscribers may occasionally ask to connect additional sites and some new subscribers may emerge. However, such changes are likely to be incremental, not fundamentally altering the existing situation in which subscriber revenues partially offset PSN operating costs that would otherwise be incurred by the owners.

b. Potential Private Sector Use: Revenue Opportunity

While the Owners' Agreement restricts Public Sector Network (PSN) from providing access directly to businesses or residents, the Agreement includes provisions for "sale, lease or disposal" which could allow lease of surplus fibre (using an Indefeasible Right of Use or IRU) to private sector carriers, who could, in turn, use this fibre to serve their customers. PSN has made limited use of these provisions in the past to facilitate fibre swaps, in which PSN provides access to PSN fibre in one location, in return to access to fibre owned by a carrier in another location.

Private sector carriers may be interested in broader access to PSN surplus fibres and be willing to pay for such access. However, the major carriers have their own substantial networks throughout Peel, with ongoing plans to expand (e.g. in Caledon) as demand develops. They are unlikely to rely on PSN fibres as a long-term solution for expanding their networks. Some smaller, regional carriers may also be interested in access to PSN fibres to address specific opportunities within Peel Region. However, such needs would generally be of a one-off variety, in response to specific opportunities.

Our assessment of the relatively limited revenue potential through making PSN fibre available to private sector carriers is based on discussions with other municipalities who have made this option available on their networks. These discussions indicate that private carrier interest has been limited; however, some agreements have been reached.

RISK CONSIDERATIONS

There are some risks with making PSN fibre available, through IRU's, to private sector to connect their customers:

- While the terms of the Indefeasible Right of Use (IRU) provide some protection in terms of liability for third party use, the fact remains that a broader range of customers would be using fibre, which PSN (still the owner of these strands) is responsible to repair.
- Opening PSN to expanded private sector use could jeopardize our position as a perceived "neutral" player, which could, in turn, risk our generally positive relations with both the electric utilities and with other carriers.

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CONCLUSION

There are limited opportunities for the Public Sector Network (PSN) to expand revenues through expanded public sector use. The potential public sector market is relatively limited and any increased revenues on this front are likely to be incremental, at best. There is potential for generating additional revenues from leasing PSN surplus fibre to private sector carriers. As with expanding public sector use, these opportunities are considered to be limited. As such, PSN members will remain open to negotiation of these opportunities should they arise but will not dedicate additional resources to seeking out revenue opportunities.

In consideration of the above, the PSN Steering Committee has approved, in principle, making surplus PSN fibre available for lease by private sector carriers through an IRU. However, should such opportunities be presented for PSN consideration, each situation would be evaluated on its own merit and each such agreement requires the unanimous agreement of the PSN owners.

Finally, while the PSN Owners will consider and explore such opportunities to increase PSN revenues, the focus of PSN continues to be in ensuring that the network is meeting the needs of its owners and reducing the cost of providing public services in Peel. In this regard, with or without additional revenues, PSN has been an unqualified success.

For further information regarding this report, please contact Steve Van de ven, Director, IT Operations, Ext. 4451, steve.vandeven@peelregion.ca.

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Reviewed and/or approved in workflow by:

Department Commissioner and Division Director.

Final approval is by the Chief Administrative Officer.



N. Polsinelli, Interim Chief Administrative Officer