
REPORT TITLE: Public Sector Network (PSN) Update and Budget

FROM: Sean Baird, Commissioner of Digital and Information Services

RECOMMENDATION

That the Public Sector Network 2020 Operating Budget attached as Appendix II to the report of the Commissioner of Digital and Information Services, titled “Public Sector Network (PSN) Update and Budget”, be approved in accordance with the PSN Partnership Agreement;

And further, that the Director, Information Systems and Technology Services be authorized to execute Alternate Locate Agreements on behalf of the Region of Peel on business terms satisfactory to the Commissioner of Digital and Information Services and on legal terms satisfactory to the Regional solicitor;

And further, that the Director, Information Systems and Technology Services be authorized to execute Shared Structures Agreements on behalf of the Region of Peel on business terms satisfactory to the Commissioner of Digital and Information Services and on legal terms satisfactory to the Regional solicitor.

REPORT HIGHLIGHTS

- Under the PSN Partnership Agreement, an annual PSN Budget is required to be submitted to the respective municipal Councils of the PSN Partners.
- The 2020 PSN Proposed Budget has no impact on the overall Regional Budget.
- In accordance with the PSN Partnership Agreement, subscriber revenues are applied to offset shared costs for operation and support of the network, thereby reducing partners’ cost of ownership.
- The Reserve Fund balance at the end of 2019 stood at \$777K and is anticipated to reach \$827K by the end of 2020.

DISCUSSION

1. Background

The fibre optic network, labeled the Public Sector Network (PSN), involves the effort of the four municipal agencies operating within the Region of Peel (Mississauga, Brampton, Caledon and the Region of Peel). Through years of planning and collaboration, a communications infrastructure capable of providing cost effective, high speed telecommunications has been developed.

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Established in 1996, the network is designed to meet the growing need to provide an instant flow of data communications between municipal facilities across Mississauga, Brampton and Caledon. In addition to providing operational connectivity between facilities of its owners (Peel Region and local municipalities), the PSN provides connectivity for other public sector agencies operating within Peel.

a) PSN Budget

Under the PSN Partnership Agreement, the PSN Steering Committee is required to submit an annual proposed budget and a statement of actual revenues and expenditures to their respective municipal councils for approval. The PSN Steering Committee is comprised of staff representatives from the PSN Owners: Region of Peel and the three local municipalities in Peel.

Appendix I of the subject report includes a Revenue and Expenditure statement for the year ending December 31, 2019 with commentary on budget variances.

Appendix II of the subject report includes the PSN Proposed Budget detailing the proposed allocation of revenues in 2020. In accordance with the PSN Partnership Agreement, revenues received from PSN Subscribers are used to offset shared costs incurred for operation and support of the network, thereby reducing the partners' cost of ownership.

b) PSN Activity

PSN continued to expand during 2019:

- 16 kilometers of new fibre optic cables were installed.
- 57 partner connections were added – 17 sites (locations with staff) and 40 nodes (traffic controllers, bus stops, SCADA sites, etc.);
- 7 Region of Peel and one Peel Regional Police connections were added, including five Paramedic stations and one Police VCom site.

Much PSN activity during 2019 was focused on other activities, responding to externally imposed pressures:

- Completing bypasses (alternate routes) for key sites along the Hurontario corridor, to minimize the risk of service disruptions resulting from the Hurontario LRT construction, beginning in 2020;
- Working with Metrolinx and other utilities to design and implement alternatives to existing overhead GO Rail crossings, which will need to be replaced as part of the planned GO Rail electrification;
- Working with Alectra and other utilities to relocate PSN fibre from Alectra poles scheduled for replacement.

c) Current Status

PSN now consists of 828 kilometers of fibre (almost 50,000 strand-kilometers), connecting 985 partner and subscriber facilities, as follows:

Partner Connections (969):

- Region of Peel (188)
- Peel Regional Police (22)

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- City of Mississauga (368)
 - City of Brampton (372)
 - Town of Caledon (19)
- Subscriber Connections (16)

PSN provides highly reliable service. During 2019, there were 14 incidents where fibre was damaged resulting from traffic incidents affecting overhead cable, damage caused by contractors digging (despite locate services) or animals chewing through the fibre. Incidents are generally repaired within a few hours. However, since most critical facilities have redundant connections, no loss of service was experienced in many cases.

2. Alternate Locate Agreements

As indicated in the proposed budget and financial report, a significant and growing portion of the operating costs for the PSN network relate to the cost of locating underground PSN infrastructure. Since 2012, contractors and residents have been required to contact Ontario One Call (ON1Call), to obtain the location of underground infrastructure before initiating any excavation. Similarly, owners of underground infrastructure, such as PSN, are required to file maps showing the location of their infrastructure with ON1Call.

When a contractor notifies ON1Call of their plans to dig, ON1Call notifies owners of infrastructure in the location of the planned work. Where necessary, infrastructure (facility) owners will request a field locate (paint marking on the ground) showing the actual location of their infrastructure. Cost for these locates are the responsibility of the facility owner.

An Alternate Locate Agreement (ALA) is an agreement between a contractor and facility owner, outlining the terms and conditions under which the contractor can safely proceed without a field locate, when using a specific method of excavation. PSN has been approached by several contractors wishing to enter into ALA's with PSN. ALAs may be appropriate for excavation work that is deemed low risk to the infrastructure (i.e. hand digging, vacuum excavation, etc.). When the excavator contacts ON1Call using a special Contractor ID, the notification system will advise the excavator that traditional field locates will not be required pursuant to their ALA.

As a legal agreement, an ALA includes a start date, term limit, expiration date, as well as clauses for termination, insurance and legal liability. A template ALA is provided by ON1Call and should serve as the basis for any such agreement entered into by PSN. An ALA does not relieve the contractor of liability for any damage caused to PSN infrastructure.

For PSN, the benefit of an ALA is avoiding the cost of unnecessary locates. For the contractor, it avoids delays in waiting for required locates to be completed.

Since there are potential cost savings from entering into ALA's with certain contractors, it is recommended that the Director, Information Systems and Technology Services, be authorized to execute Shared Structures Agreements on behalf of the Region of Peel, provided that they are in a form satisfactory to Legal Services. Since PSN is a partnership, it is understood that each PSN owner (or each owner with infrastructure in the area covered by the ALA) must execute each ALA on behalf of PSN, before the ALA can take effect.

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3. Shared Structures Agreements

Given the limited number of positions available for telecommunications infrastructure on hydro poles or limited space within the roadway allowance, PSN has been approached, from time to time, with requests by other telecommunications carriers to be able to access PSN infrastructure. Such requests have typically been to allow the other carrier to attach (overlash) their fibre to existing steel messenger cable owned by PSN or to install their fibre in ducts or conduit owned by PSN. In a small number of situations, PSN has made similar requests of other carriers, where it may have been difficult or impossible for us to install our own fibre using our own infrastructure.

Such situations, in which one carrier uses infrastructure owned by another, are not unusual in the industry. To address such situations, including the respective roles and responsibilities (i.e. if the shared infrastructure is damaged or needs to be replaced/moved), carriers have developed various forms of Shared Structures Agreements (SSA's). Such agreements are typically balanced in responsibilities and liability between the infrastructure owner and the other party that is sharing it, since each party (e.g. PSN) may be the "owner" in one situation and the "user" in another.

Although PSN has a number of such situations of shared infrastructure (both as owner and user), no formal agreements are yet in place. Since it would be in the interests of all parties for such situations to be documented within formal agreements, it is recommended that the Director, Information Systems and Technology Services, be authorized to execute Alternate Structures Agreements on behalf of the Region of Peel, provided that they are in a form satisfactory to Legal Services. As with ALA's, it is understood that each PSN owner (or each owner with infrastructure covered by the SSA) must execute each SSA on behalf of PSN, before the SSA can take effect.

RISK IMPLICATIONS

Risks associated with Alternate Locate Agreements appear to be minimal. With legal review, PSN will ensure that any such agreements do not relieve the contractor of liability, should PSN or other infrastructure be damaged during the work. On the other hand, failure to enter into such agreements means that PSN will not be able to take advantage of any cost savings that they might provide.

Risks associated with Shared Structures Agreements are that the roles and responsibilities will be clearly defined for situations where PSN is sharing infrastructure with another telecom carrier. For instance, the responsibility of the owner of the shared infrastructure (PSN or the carrier) will be clearly laid out in such agreements. Without such agreements in place, mutual responsibilities remain undefined, which presents an even greater risk. Without such agreements, PSN should avoid sharing infrastructure with other carriers, passing on any cost savings or other benefits that such sharing might provide.

FINANCIAL IMPLICATIONS

The recommendations in the subject report have no direct financial impact on the Region of Peel. Revenues received from PSN subscribers are used to offset PSN shared operating costs, which would otherwise be borne by PSN partners. Surplus funds are deposited to the PSN Reserve Fund and will be applied as determined by the PSN steering committee in

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accordance with the established partner agreements. In 2020, the network is estimated to increase its reserve fund by \$50,000 and end the year with a reserve fund balance of \$827,000.

CONCLUSION

PSN remains an outstanding example of technological innovation and of the benefits derived through co-operation and partnership among Peel municipalities and with the broader public sector in Peel. Access fees from subscribers to the network are now funding the shared costs associated with network operations while providing a small surplus for future network operations or replacement costs.

APPENDICES

Appendix I - Public Sector Network, Revenue and Expenditure Statement for 2019

Appendix II - Public Sector Network, Proposed 2020 Operating Budget

For further information regarding this report, please contact Steve Van De Ven, Director IT Operations, steve.vandeven@peelregion.ca.

Authored By: Steve Van De Ven, Director IT Operations

Reviewed and/or approved in workflow by:

Department Commissioner, Division Director and Financial Support Unit.

Final approval is by the Chief Administrative Officer.



N. Polsinelli, Interim Chief Administrative Officer