

Date: 2022-08-02

Subject: **Annual Public Sector Network (PSN) Update**

Contact: Paul Morrison, CIO (Acting) Digital Innovation and Information
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Report Number: Corporate Support Services-2022-771

Recommendations:

That the report entitled **Annual Public Sector Network (PSN) Update dated June 22nd, 2022**, be received; and **Financial Results for 2021** as outlined in **Appendix I** and **PSN Proposed Budget for 2022** as outlined in **Appendix II** be approved with no impact to the overall City budget.

Overview:

- Since 1999, the City of Brampton has been in a partnership agreement with the Region of Peel, City of Mississauga and Town of Caledon for the development of a fibre optic network known as the Public Sector Network (PSN).
- The PSN now consists of 842 kilometres of fibre that connects 1,039 partner and subscriber facilities, to the benefit of each partner municipality, its citizens and businesses.
- Within the PSN Agreement, revenues are to be applied to offset shared costs for the operation and support of the network, and each partner is required to seek Council approval of the annual PSN operating and financial status reports
- The Reserve Fund balance at the end of 2021 stood at \$858,352 and is anticipated to reach \$822,533 by the end of 2022

Background:

In June 1999, Council endorsed that the City of Brampton enter into a partnership known as the Public Sector Network (PSN) with the Region of Peel, the City of Mississauga and the Town of Caledon for the development of a fiber optic network. The key principle of the partnership is that each partner is responsible for construction of the fiber optic network within its municipal

boundaries. However, spare fiber would be made available for use by the other member partners. The City of Brampton has 276 kilometers of fiber connecting 377 connection points to sites, ZUM stations and traffic controllers across the city.

PSN Budget:

The Public Sector Network Agreement requires that each partner submits and obtains approval from its Council of an annual operating report update with the previous year's financial statement and the current year's budget forecast. The PSN Steering Committee decided that the report should first go to the Regional Council and then to the local municipalities of Brampton, Mississauga and Caledon. Region of Peel Council approved its annual PSN operating report on May 26th, 2022.

Appendix I of the subject report includes a Revenue and Expenditure statement for the year ending December 31st, 2021 with commentary on budget variances.

Appendix II of the subject report included the PSN Proposed Budget detailing the proposed allocation of revenues in 2022.

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.

Included in the proposed budget is a withdrawal of \$65,000 from the accumulated PSN reserve to fund two projects scheduled for 2022:

- \$15,000 to complete the link from Sheridan Brampton Campus to connect with third party network infrastructure at the Peel-Toronto border to complete a fully redundant loop connecting Sheridan's Brampton and Mississauga campuses with downtown Toronto Internet and cloud services hubs.
- \$50,000 to undertake a design to address a key area of the PSN original 96-strand backbone along Derry Road and Airport Road, where all 96 existing strands are in use or allocated for use in the near future. Options include an additional cable or replacing the existing cable with higher capacity/strand count.

The Reserve fund balance at the end of 2021 was \$858,352. Even with these withdrawals, PSN is anticipated to end the year with a reserve fund balance of \$822,533.

Current Situation:

The following PSN construction and development activity demonstrates the value and success of the partnership that brings benefits to each municipality, citizens and businesses:

- Preparation work to accommodate future connections to Williams Parkway Fire Headquarters as well as Victoria Park Arena has been completed.

- Rehabilitation of major backbone cable connections to the Civic Centre Data Centre to facilitate growth for upcoming land leases co-ordinated by Real Estate Services.
 - Additional network redundancy has been provisioned to increase resiliency for the Corporate Radio Network.
 - Co-ordination with Alectra to replace aging infrastructure and ensure PSN re-attachments are completed to prevent double pole lines in Brampton.
 - With construction of the Hurontario LRT commencing in 2021, much PSN activity has involved working with Metrolinx/Mobilinx and their contractors on plans to relocate PSN fibre located along the Hurontario corridor and key areas of construction.
- Current partner connections include (1,039):
 - City of Brampton (377)
 - Region of Peel (212)
 - Peel Regional Police (25)
 - City of Mississauga (406)
 - Town of Caledon (19)
 - Subscriber connections within the Region include (15):

PSN provides highly reliable service. During 2021 there were only 5 incidents where links were lost. All five incidents involved damage to aerial fiber: four appeared to be caused by fiber being chewed by squirrels and the fifth was caused by a vehicle snagging overhead fiber. Incidents are generally repaired within a few hours. However, since most critical facilities have redundant connections, most incidents resulted in no loss of service to connected facilities. Overall, PSN maintains availability exceeding 99.99% for connected sites.

The PSN continues to grow based on the additional needs of the Corporation, other partners and requests from existing or new subscribers. Staff from the Digital Innovation and Information Technology Division meet with counter parts in the Public Works Division regularly to ensure PSN development activities are aligned with the capital budget process, including new facility construction projects and infrastructure redundancy to limit exposure to communications failures resulting from network outages.

Financial Implications:

The recommendations in this 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 applied as determined by the PSN Steering Committee in accordance with established partnership agreements.

Term of Council Priorities:

This report aligns to term of council priorities of Brampton is a Well-Run City

Conclusion:

The PSN remains an outstanding example of technological innovation and of the benefits derived by City residents through co-operation and partnership among municipalities within the Region of Peel and with the broader public sector in Peel. Access fees from subscribers to the network continue to fund many of the shared costs associated with network operations while providing a small surplus for future network operations. City staff continue to participate in this partnership and the continued development of fiber infrastructure to meet the business requirements of the Corporation.

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Attachments:

Appendix I - Public Sector Network, Revenue and Expenditure Statement for 2021

Appendix II - Public Sector Network, Proposed 2022 Operating Budget