

Decommissioning Traditional Fax Lines across City Divisions - Action Plan

Date: November 16, 2021
To: General Government and Licensing Committee
From: Chief Technology Officer, Technology Services Division
Wards: All

SUMMARY

This report is pursuant to City Council direction made at the May 2021 meeting for the City Manager, in consultation with the Chief Technology Officer, to draft a plan to phase out traditional telephone fax lines for City divisions by the end of 2021.

Traditional fax machines continue to be used across all City divisions despite the availability of more modern forms of communication such as e-mail and instant messaging. The continued use of traditional fax lines carries extra costs, creates inefficiencies and can expose the City to regulatory compliance risks such as privacy or data breaches through unauthorized document access. The Technology Services Division has been consulting with other divisions in assessing the current state of traditional fax lines. The purpose of this report is to provide an overview of the action plan to systematically phase out traditional fax lines and implement a modernized virtual fax solution across City divisions. This plan will highlight the road map for the transition from current state (physical fax devices) to the future state (virtual fax services), based on best practices and experience of the divisions that have already and successfully transitioned to the virtual fax solution.

RECOMMENDATIONS

The Chief Technology Officer recommends that:

1. The General Government and Licensing Committee receive this report for information.

FINANCIAL IMPACT

Decommissioning traditional analog fax lines is estimated to generate net savings. After the Technology Services Division completes its assessment of future state and possible costs of digital fax services expansion, we will be able to assess the amount of cost savings that will be realized by each division, as a result of decommissioning the traditional fax lines. At the end of the phase 1, with a full analysis of current state and the assessment of the future state, a financial impact report will be produced by the project team.

The financial implications associated with this transition will be embedded with the [Workplace Modernization Program \(ModernTO\)](#). The ModernTO program aims to optimize and modernize the City of Toronto's office buildings to build a new and healthy model for our workspaces, employees and how we work. This includes updating and improving office spaces by introducing solutions to create a more connected, collaborative work environment that will enhance the employee experience and provide staff with flexibility in their workplace, thereby enabling effective public service delivery.

The Chief Financial Officer and Treasurer has reviewed this report and agrees with the financial impact information.

DECISION HISTORY

At its meeting on May 5 and 6, 2021, City Council directed the City Manager, in consultation with the Chief Technology Officer, to draft a plan by the end of 2021 to phase out traditional telephone fax lines for City Divisions.

<http://www.toronto.ca/legdocs/mmis/2021/mm/bgrd/backgroundfile-166278.pdf>

COMMENTS

Current Landscape

A fax machine is a device that is used to send documents electronically over a telephone network between two fax machines in different locations. The transmissions sent are called “faxes” and the method of transmission is through a “fax line”.

The City of Toronto has 1,355 fax lines in support of various business operations. Of these, 406 (30%) are traditional analog lines that use the telephone system to transmit and receive data. The remaining 949 (70%) are internet lines which are used for digital signal transmission. Maintaining traditional analog fax lines is more costly at \$23.10/month/line compared to internet (also known as Voice over Internet Protocol or VoIP) lines that costs \$3.00/month/line. The total annual cost across City divisions for maintaining 406 analog fax lines is \$113,000. The total annual cost for maintaining 949 internet fax lines is \$34,000. Based on this analysis, it is more cost effective for the City

to reduce as many analog fax lines as possible by using the existing digital network for data transmissions. Where the existing digital network cannot support data transmissions, in some City of Toronto locations, and are limited to using traditional analog technology for fax services, the planned approach is to upgrade the network infrastructure to convert analog fax lines to internet fax lines.

Traditional fax machines enable the telephonic transmission of scanned printed material (both text and images) to a telephone number connected to another fax machine. As technology has evolved, many traditional fax machines and standalone printers have been replaced with multifunctional devices (MFDs) that can perform functions such as printing, copying, scanning as well as transmitting and receiving faxes. When an MFD is connected to an analog phone line, it can send and receive fax transmissions like a traditional stand-alone fax machine. The City of Toronto has approximately 2,092 MFDs. Understanding what these MFDs are being used for and identifying which MFDs are actively being used as fax machines requires significant time and effort. Completing this assessment is included in the phase 1 of the proposed plan.

Transition to a Virtual Fax Solution

Virtual Fax solutions eliminate the need for a physical fax device. For sending a fax through a virtual fax service, the user can email or upload a document or a scanned paper document to the virtual fax system. The system will transmit the document like a regular fax to the destination fax number.

On the receiving end, regardless of how the fax has been sent (through a conventional fax machine or through another virtual fax solution), a virtual fax system will receive the fax, convert it to a readable file or an image and send the file as an attachment to an email mailbox.

This solution not only eliminates the need for fax lines and fax machines, it will also eliminate the privacy risk of a confidential fax document being exposed or picked up, even by mistake, by an unintended audience. Another benefit of the virtual fax service is savings realized through a substantial reduction in paper usage and printed material.

The City of Toronto currently has an enterprise virtual fax service. The service is based on a product, called XMedius provided by OpenText company. Presently, 36 City divisions have adopted and/or are transitioning their programs to XMedius with 390 digital fax numbers assigned. Thirteen (13) City divisions continue to use traditional fax lines as compared to other divisions, such as the Toronto Public Health (TPH), which has transitioned most, if not all, of its programs to XMedius.

Benefits of the Virtual Fax Solution

City divisions require the ability to send and receive faxes on a daily basis to support business operations. Implementing or utilizing virtual fax capabilities is the ideal solution for the following reasons:

i) Greater Privacy & Security: The virtual fax solutions use enhanced data encryption (a way of protecting data) ensuring no one except the sender and receiver can read the content of the fax. As there is no physical fax machine, no unauthorized staff will have access to the received fax.

ii) Simplicity and Improved Efficiency: Virtual faxes are easy to send and receive without leaving the desk and the ability to use from anywhere across the City of Toronto. Furthermore, the virtual fax solution allows for effective data management and the ability to search, organize and access files in one place from any mobile device with a few clicks.

iii) No Fax Machines Required: Virtual fax services reduce the reliance on paper, and is capable of providing every person or team in the organization with their own private fax number (groups can be assigned a specific fax number so faxes get routed to an e-mail distribution list).

iv) Integration: The virtual fax solution can be deployed across City divisions and integrate with existing technologies such as e-mail, and mobile devices. As mentioned previously, many City divisions have successfully adopted and/or are transitioning their programs to XMedius Fax.

v) Lower Costs: A virtual fax solution will eliminate the costs for maintaining dedicated analog lines across City divisions and reduce costs associated with the use of paper and consumables.

Proposed Plan of Action

The objective of the following action plan is to phase out legacy analog fax lines and implement a modernized enterprise virtual fax solution across the City of Toronto. This is in alignment with the objectives of [Workplace Modernization Program \(ModernTO\)](#), and in support of the principal for Teleworking and Corporate initiatives.

Phase I: Full Assessment

The Technology Services Division will complete a current state review of the existing analog fax lines and MFDs deployed across the City of Toronto. In consultations with City divisions, the analysis will identify business needs and fax service requirements based on current use cases and business workflows.

The findings of this assessment will be summarized in a report that identifies:

- Number of business units that will continue to have a need for fax functionality
- Number of business units that need a physical fax device due to their specific function
- Number of the business units/locations that may require a physical fax device and are using a digital fax line or can be converted to one
- Current licensing arrangements, technical or other possible limitations for expanding the existing Enterprise Fax services to reach all users/groups identified.

Technology Services Division will also review alternative and/or complementary solutions available in the market to address specific divisional challenges or business needs not available within current solution.

Estimated duration: 3-4 months

Phase II: Transition Plan

A transition plan will be developed that is aligned with divisional requirements and timelines for the conversion of analog lines to the enterprise virtual fax solution. This plan will highlight the road map for the transition from current state (physical fax devices) to the intended state (virtual fax solution), based on best practices and experience of the divisions that have already and successfully transitioned to virtual fax solution. The plan will also consider the possible upgrade or transition of analog fax lines to digital lines for business units and teams that may require to maintain a physical fax device.

Organizational Change Management (OCM) planning for the users affected by the transition will be part of this phase. This planning will include the assessment of training and other user support services.

Estimated duration: 2 months

Phase III: Plan Execution

In collaboration with City divisions, Technology Services Division will execute the transition plan based on business needs and fax requirements. The plan will include the following components:

Inactive Analog Lines: Analyze fax activity across the City's 1355 analog fax lines and identify analog fax lines with no activity for immediate decommissioning.

Conversion to a virtual fax solution: In collaboration with City divisions already transitioning to XMedius Fax, identify locations and business units identified for conversion from physical fax devices to the virtual fax solution.

Improve and/or convert the potential few locations that may require maintaining physical fax devices from analog fax lines to digital internet lines for fax use: Currently there are approximately 80 office sites across the City of Toronto with low bandwidth that are limited to using traditional analog technology for telephone and fax services. If any of these locations need to maintain their physical fax devices, the project, in collaboration with network services, will upgrade the bandwidth and internet connection for these locations to support the conversion of the analog line to an internet line.

Implement the Change Management plan, including training and support of end users who are subject to the transition from traditional fax equipment to virtual fax services.

The proposed plan will provide City divisions with the ability to phase out legacy analog fax lines with the flexibility of alternative options to address the business and technology challenges associated with low bandwidth and current digital network.

Estimated duration: 4-6 months

Conclusion

Matching the capabilities of the existing enterprise fax services with the needs of divisions will further inform the full implementation plan to decommission traditional fax lines. The plan may require some user groups to maintain their physical fax machines (MFDs) and migrate to digital lines for cost saving, and other user groups to migrate to the virtual fax services. Based on the City's needs, the project will also make a recommendation for expansion of the existing enterprise fax services or the implementation of a new service.

CONTACT

Cielo Medel, Director Operation Support Services, Technology Services Division
Tel: 416 392-0369
Email: Cielo.Medel@toronto.ca

SIGNATURE

Lawrence Eta
Chief Technology Officer
Technology Services Division