



# **Report of the Auditor General of the Ville de Montréal** to the City Council and to the Urban Agglomeration Council

For the Year Ended December 31, 2014

# 4.4

## **OUTSOURCING OF TELECOMMUNICATIONS SERVICES (AMENDED)**



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## List of Acronyms

CET	Centre d'expertise en télécommunications	ICT	Information and communication technologies
CMDB	Configuration Management DataBase	SPVM	Service de police de la Ville de Montréal
CSTI	Comité sectoriel des technologies de l'information	STI	Service des technologies de l'information
		VDM	Ville de Montréal

## Preamble

This amended audit follow-up report is in response to information that had not been brought to our attention at the time of our audit, nor during validation of the first version of our report with the Service des technologies de l'information (STI). This information relates essentially to the possibility that the data transmission contract will not be terminated by the initially planned end date of November 30, 2018. We therefore agreed to amend our report to reflect this possibility and we have also made certain modifications to clarify elements of the financial framework of the telecommunications services outsourcing project.

It should be stressed, however, that the STI still disagrees with our interpretation of the costs relating to the financial framework of this outsourcing project, which we discuss in Sections 3.2 and 4.2 of this version. In short, the STI maintains that:

- the costs related to the contracts for certain services in this project, which are not attributable to wireline telephony and data transmission contracts, should be excluded from the financial framework;
- the incurred and projected costs for the data transmission contract should not be presented until the planned end date for the contract, i.e., November 30, 2018, since it estimates that the credits authorized for said contract will be used up by October 2016 and that, consequently, the contract will be automatically terminated.

We cannot subscribe to this position given the principles of governance, accountability and transparency that govern the public administration. First, it should be noted that the representations made to the authorities, both during the authorization to go to tender and during the awarding of the contracts, essentially dealt with the following aspects:

- The project was initiated as part of the RASOP,<sup>1</sup> which dealt with, among other things, optimization of the use of the City's telecommunications networks;
- The only exclusions to the scope of this project were related to radiocommunication (mobile communications for public safety) as well as former suburban boroughs that could join these services in open membership mode;
- The project was expected to generate savings of \$142M in investments and \$50M in telecommunications services over a span of 10 years;
- The STI agreed to finalize the financing packages required for future years with the Service des finances in order to enlighten the authorities regarding the way to recoup the expected benefits, as well as the sharing of investment and operating costs.

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<sup>1</sup> Revue des activités, des services, des opérations et des programmes [TRANSLATION: Review of activities, services, operations and programs].

The elected officials sitting on City council and the urban agglomeration council ratified this project based on this information and, consequently, awarded a financial framework of \$100M, which was expected to cover virtually the entire telecommunications services file over a period of ten years. We are therefore of the opinion that the financial framework should encompass all the cost factors resulting from the authorities' adoption of the decision-making summary related to the telecommunications services outsourcing project.

It is indisputable, in our opinion, that the authorities must be informed of the entire situation related to the telecommunications services outsourcing project, including its financial framework. This obligation to be accountable to the elected officials is all the more important given that, up to now, they have received only very fragmented information on the situation, and the reality of the project has considerably changed from what was presented at the time of its approval in 2008. Among other things, we observed during our 2009 audit that the savings of \$50 advanced at the time the contracts for this project were awarded was unfounded.

## 4.4. Outsourcing of Telecommunications Services (amended)

### 1. Introduction

In January 2008, the urban agglomeration council of the Ville de Montréal (the City) awarded TELUS Québec (TELUS) the contract for wireline telephony (\$31M before taxes and the contingency) and for data transmission (\$42.1M before taxes and the contingency), with respective end dates of October 31, 2015 and November 30, 2018. At the same time, Bell Mobility was awarded the cellular telephony contract (\$6.6M before taxes and the contingency) for a term of four years, which has now ended. Each of the contracts also included a 20% contingency, for a total of \$16M before taxes, with \$6.2M for wireline telephony and \$8.4M for data transmission. Following the awarding of the contracts, TELUS was to take over the wireline telephony service and data transmission service before the end of 2008.

The new contracts were supposed to ensure the availability and development of high-performance networks at the lowest cost for the City. The chosen strategy was part of an outsourcing strategy according to which the City would maintain a “planner-user” responsibility while transferring the responsibility for service operationalization to the successful bidder. These contracts were expected to generate savings of \$50M over a span of 10 years, specifically through the major transfer of wireline telephony to IP telephony<sup>2</sup> and through a reduction in the projected investments.

#### 1.1. 2009–2010 Audit

In October 2009, close to one year after the takeover provided for in the contracts, we began an audit initially aimed at evaluating the management of these outsourcing contracts and the control procedures put in place. However, we realized that the project was significantly delayed, so we focused our work on identifying the causes of these delays and dealing with the issues related to the operational phase then slated for 2011. We did not include the cellular telephony contract in our mission.

This audit had revealed deficiencies in the needs definition process, inconsistencies in the outsourcing strategy, discrepancies in the understanding of specifications and a major

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<sup>2</sup> Internet Protocol.

reorganization of the staff involved in the project, both at TELUS and at the City. This resulted in several issues related to the takeover and management of the contracts, financial commitments, and achieving the objectives of the outsourcing strategy.

Our report included a total of 19 recommendations. These were mainly aimed at strengthening project governance, promoting the resolution of differences of opinion between the parties, ensuring sound accountability reporting on the achievement of the strategic and financial objectives identified in the decision-making summary issued during the awarding of the contracts, and ensuring the continuity of critical services related to City responsibilities.

## 1.2. 2011 Follow-up

In February 2012, we produced a first follow-up report to the audit report described previously. During this follow-up, we examined the implementation of nine recommendations that were deemed to be major given their significant impact on the achievement of strategic objectives, on the authorized financial framework, and on the continuity of telecommunications operations. These recommendations involved:

- prioritization of outsourcing objectives;
- project governance;
- the financial framework of the project;
- the contract management framework;
- the continuity and evolution of the network;
- the disaster recovery plans;
- the emergency measures plan.

At the end of our follow-up, five of the nine recommendations were still being implemented. We therefore concluded that three major issues needed to be resolved to ensure the sound management of the telecommunications services outsourcing project.

First, with respect to governance, the failure to update and prioritize strategic objectives meant that there was still a significant risk that the optimization of the telecommunications services, both from a financial and operational standpoint, could not be ensured, particularly during the preparation of the specifications at the end of the current contracts.

Also regarding governance, the fact that the Direction générale had not implemented a framework that formalized accountability reporting to authorities, combined with the difficulties associated with development of the financial framework, meant that they could only be partially informed about the use of the authorized credits.

Lastly, since the successful bidder had not yet provided all the management tools and disaster recovery plans required in the specifications, we consider that not only was the City unable to ensure compliance with the outsourcing contracts, but it was also unable to ensure the optimization of the telecommunications services.

## 2. Purpose and Scope of the Audit

The purpose of this second follow-up is to determine whether the issues that were not resolved after our 2011 follow-up were rectified in order to ensure compliance with the outsourcing contracts and the optimization of the telecommunications services.

More specifically, we examined the following elements:

- project governance;
- the financial framework of the project;
- the contract management framework;
- the continuity and evolution of the network;
- the disaster recovery plans.

Our audit was conducted from November 2014 to February 2015.

In order to validate the evolution of measures put in place since our last follow-up, we conducted interviews with the individuals involved in the Service des technologies de l'information (STI) and obtained the pertinent information and documents.

The results of our audit are based on the state of affairs on February 27, 2015, with the exception of the information that was shared with us by the STI and the Service des affaires juridiques in April 2015 regarding the wireline telephony and data transmission contract end dates. This information is reflected in Sections 3.2 and 4.2 of this report dealing with the financial framework. Consequently, modifications and improvements that may have been made to the project subsequently are not reflected in this report.

The conclusions that we make are based on the same evaluation criteria as those used in our 2009 audit. This said, the work conducted and the resulting report do not constitute a new audit or a final follow-up. Moreover, even though we focused particularly on the preparation of the next call for tenders for wireline telephony, for which the contract will expire in October, this aspect was not audited for the purposes of this follow-up.



### 3. Summary of Findings

Following our audit, the implementation status of the five recommendations considered major that we examined as part of this second follow-up is as follows:

**Table 1 – Implementation Status for Major Recommendations**

Recommendations	Under way	Done
4.1 Project governance – Component under the responsibility of the Direction générale	√	
4.2 Financial framework of the project	√	
4.3 Contract management framework		√
4.4 Continuity and evolution of the network		√
4.5 Disaster recovery plans		√

#### 3.1. Project Governance

In our initial audit, we made the following recommendation:

*We recommend that the Direction générale establish a governance framework that will formalize the frequency and content of reports, especially with respect to financial structure, high priority issues and meeting the objectives sought by outsourcing telecommunications services.*

After completing this follow-up, we found that, despite certain measures having been taken, the parameters for formal and systematic accountability reporting in the sense of our recommendation have not yet been implemented by the Direction générale. For this reason, we still maintain this recommendation.

#### 3.2. Financial Framework of the Project

In our initial audit, we made the following recommendation:

*We recommend that the Direction des systèmes d'information of Service des immeubles et des systèmes d'information [now the STI], in conjunction with the Service des finances, complete the financial [framework]. Upon completion, it should request the assistance of the Direction générale in presenting this [framework] to the municipal authorities for approval.*

After completing this follow-up, we found that a financial framework had been produced, but it had yet to be approved by the Service des finances and it had not been submitted to the

authorities to inform them of the situation. For this reason, we also maintain this recommendation, especially since the most recent financial framework, dated November 30, 2014, presents a projected deficit at the term of the project of close to \$32M with respect to the authorized amounts and that the authorized funds for the data transmission contract will likely be exhausted by October 2016, two years before its expiry. After that, the City may have to grant a new contract since it appears, based on the information that was shared with us by the STI and the Service des affaires juridiques, that the contract would be terminated upon the first of two occurrences: the funds authorized by the authorities when it was awarded run out or the date set for the contract to expire is reached.

### 3.3. Contract Management Framework

In our initial audit, we made the following recommendation, with regard to the elements that had not yet been finalized during our first follow-up:

*We recommend that the Direction des systèmes d'information of the Service des immeubles et des systèmes d'information [now the STI] immediately develop its management framework to manage outsourcing contracts in the operational phase. Specifically, it should:*

- *identify and design the controls to be instituted to ensure compliance with the service levels, security requirements and billing rules for services provided to client units.*

After completing this follow-up, we found that the tools TELUS was supposed to provide pursuant to the specifications have now been delivered and are being used. It should also be noted that, since their delivery, a “clean-up” operation was performed to optimize the use of network sockets. This operation resulted in the closing of over 1,800 sockets.

We also found that calculations of penalties related to defaults on the service levels did not generate any significant penalties. This situation stems in particular from this type of penalty being abandoned for the period prior to the signature of a release concluded in 2012 that allowed for the delivery of tools to be obtained. We should also add that discrepancies in the length of defaults between the City's data and that of TELUS had to be reconciled, and that this required the suspending of the calculations after the first attempt to impose the penalties.

Given these circumstances, we consider that the recommendation has been applied, due to the fact that the tools have been delivered and a control process has been implemented. We suggest, however, that a clean-up operation be performed at least once a year and that the calculation of penalties be restored as soon as possible.

### 3.4. Continuity and Evolution of the Network

In our initial audit, we made the following recommendation:

*We recommend that the Direction des systèmes d'information of the Service des immeubles et des systèmes d'information [now the STI] institute a process for watching and monitoring the evolution of the network and related equipment to ensure their survivability.*

One of the prerequisites to applying this recommendation was the availability of the tools mentioned in the contract management framework. We also found that the Centre d'expertise en télécommunications (CET) is aware of the problem related to the transfer of equipment at the term of the contract. The elements that were submitted to us with regard to the tools and controls related to the transition upon expiry of the contracts lead us to consider the recommendation as applied.

### 3.5. Disaster Recovery Plans

In our initial audit, we made the following recommendation:

*We recommend that the Direction des systèmes d'information of the Service des immeubles et des systèmes d'information [now the STI] obtain from TELUS Québec the required disaster recovery plan as per the specifications and a promise that this plan will be tested annually.*

After completing this follow-up, we found that the City obtained the disaster recovery tests provided for in the contracts, thus providing sufficient assurance with regard to the continuity of telecommunications operations.

## 4. Follow-up on Recommendations

### 4.1. Project Governance

#### 4.1.A. Background and Findings

##### Strategic Objectives

In our 2009 audit, we found that the lack of clear and approved strategic objectives did not facilitate the resolution of issues related to telecommunications outsourcing contracts, and

did not promote the internal consistency needed to implement sound governance. We therefore felt there was a pressing need to update them, prioritize them and incorporate them into the decision-making process.

In 2011, we found that the Direction générale still had not defined or endorsed these objectives. Since most of the issues between the City and the successful bidder had been resolved, we withdrew our recommendation in this respect, as we considered it less relevant given the circumstances. We also stressed that the STI, together with the Direction générale, had to update the City's vision with regard to telecommunications, and set specific goals before drafting specifications for future calls for tender.

Since the wireline telephony contract ends in October 2015, we followed up on this issue.

It appears that, over the course of the past few months, the authorities and management of the STI have undertaken a process and initiatives to develop a vision not only for telecommunications, but also for Information and communication technologies (ICT) as a whole. The authorities created a *Bureau de la ville intelligente et numérique* and presented its strategic directions to the executive committee in January of this year. These directions will have to be taken into account in the determination of City needs for the next call for tenders in telecommunications.

For its part, the STI tabled a close-out report for the telecommunications outsourcing contracts in November 2013 and a vision of the office of tomorrow presenting various scenarios that could have a major impact on the telephony and data networks in May 2014. These scenarios were presented to the executive committee. Lastly, in October 2014, it tabled, for discussion, the strategic and operational objectives that should be taken into account in the drafting of the next specifications for the wireline telephony contract. The purpose of these objectives is to respond to the difficulties identified in the close-out report for the current contracts and the scenarios created with regard to the office of tomorrow.

## Accountability Reporting

In our 2009 report, we recommended that the Direction générale implement a governance framework that would formalize the frequency and content of accountability reporting, particularly with regard to the follow-up of the financial framework, issues, risks and objectives related to the outsourced telecommunications services.

In 2011, this recommendation had still not been implemented. The migrations were still under way and the authorities preferred to wait until they were finalized to update the financial

framework and report on it. Since our last follow-up, a first comprehensive version of the financial framework was produced in July 2012. The STI also submitted the aforementioned close-out report to the Comité sectoriel des technologies de l'information (CSTI), as set out in its project management framework. Also in regard to accountability reporting, the persons in charge at the STI told us that, since 2012, they had met with the head of information technology on the executive committee three times to discuss the telecommunications contracts and renewal of the wireline telephony contract. It is their understanding that the parameters for formal and systematic accountability reporting in the sense of our recommendation have not yet been ratified by the new Direction générale and will be defined upon renewal of the wireline telephony contract.

## Conclusion

The review of the City's vision with regard to ICT is ongoing and is in line with our initial recommendation. We feel that these measures are relevant and should contribute to optimizing telecommunications. Moreover, we believe it is important for quantifiable and measurable objectives to be set for the awarding of the next wireline telephony contract and for the continuation of the data transmission contract.

In terms of our recommendation on accountability reporting, we feel it is still relevant and we maintain it. It should, in fact, be included as part of the current steps being taken to solidify the City's vision regarding ICT.

## 4.2. Financial Framework of the Project

### 4.2.A. Background and Findings

The recommendation that the STI, together with the Service des finances, finalize the financial framework, inform the Direction générale of it and present it to authorities for approval has only partially been completed since our previous follow-up report.

As briefly mentioned in the previous point, it was only in July 2012, close to four years after the contracts began, that a first comprehensive version of the financial framework was produced. It was updated for the first time in the project close-out report submitted to the CSTI in November 2013, and then a second time in November 2014.

Furthermore, in response to our recommendation, the STI director sent a copy of the project close-out report to the City manager upon his departure in April 2014 to inform him about the evolution of the financial framework.

It should be noted that, in our 2011 audit follow-up report, we reported that the Service des finances did not consider it appropriate to be actively involved in the production of the financial framework, and preferred to review it once it was finalized. It had, however, confirmed to us that the financial framework would be reported on to the authorities. Yet, close to three years after being finalized, the financial framework still has not been approved by the Service des finances and still has not been presented to the authorities.

Moreover, it should be noted that, as part of our work pertaining to that follow-up audit, it had been agreed, both with the STI management at the time as well as that of the Service des finances, that the scope of the financial framework would include all the project cost factors stemming from the authorities' adoption of the decision-making summary regarding the telecommunications services outsourcing project. We should also mention that the representations made to the authorities upon the adoption of said summary stated that the only exclusions to the scope of this project were in regard to radiocommunication (mobile communications for public safety) as well as the former suburban boroughs, which could join these services in open membership mode.

However, during the takeover and management of the wireline telephony and data transmission contracts awarded to TELUS, discrepancies were found between the scope of the telecommunications outsourcing project presented in the decision-making summary, approved by the authorities, and that stated in the contracts, as well as inconsistencies in the specifications related to said contracts, and differences with regard to the understanding of the specifications. Consequently, the City had no other choice but to entrust the provision of certain services to third-party providers.

Based on the version updated in November 2014, the financial framework up until the planned end dates of the wireline telephony contracts, i.e., October 31, 2015 and November 30, 2018, respectively was as follows:

**Table 2 – Financial Framework of the Telecommunications Outsourcing Project<sup>3</sup>**

Expense category	Amounts granted			Incurred and projected expenses	Difference
	Bid or budget <sup>4</sup>	Contingency (20%) <sup>5</sup>	Authorized funds		
Wireline telephony – Expenses attributable to the TELUS contract	\$31.0M	\$6.2M	\$37.2M	\$34.0M	\$3.2M
Wireline telephony – Expenses not attributable to the TELUS contract				\$4.1M	\$(4.1)M
<b>Subtotal</b>	<b>\$31.0M</b>	<b>\$6.2M</b>	<b>\$37.2M</b>	<b>\$38.1M</b>	<b>\$(0.9)M</b>
Data transmission – Expenses attributable to the TELUS contract	\$42.1M	\$8.4M	\$50.5M	\$62.6M	\$(12.1)M
Data transmission – Expenses not attributable to the TELUS contract				\$18.2M	\$(18.2)M
<b>Subtotal</b>	<b>\$42.1M</b>	<b>\$8.4M</b>	<b>\$50.5M</b>	<b>\$80.8M</b>	<b>\$(30.3)M</b>
CET <sup>6</sup>	\$22.4M		\$22.4M	\$23.1M	\$(0.7)M
<b>TOTAL</b>	<b>\$95.5M</b>	<b>\$14.6M</b>	<b>\$110.1M</b>	<b>\$142.0M</b>	<b>\$(31.9)M</b>

We note a projected total overrun of close to \$32M in relation to the authorized financial framework by the end of the project's planned duration, i.e., November 30, 2018. Of this projected total overrun, we observe, as detailed in the following sections, that \$22.3M involves expenses that are not attributable to the TELUS contracts. As for the TELUS contracts, we note that the incurred and projected expenses, taking into account the 20% contingency, amount to \$34M for wireline telephony, which is \$3.2M less than the amount authorized by the authorities for this contract. However, we note that, for data transmission, the incurred and projected expenses, taking into account the 20% contingency, total \$62.6M, which is \$12.1M more than the amount authorized by the authorities for this contract.

Furthermore, we understand from information shared with us by the STI and the Service des affaires juridiques that, from a legal standpoint, it appears that these contracts would be terminated upon the first of two possible occurrences: the funds authorized by the authorities when the contract was awarded run out or the planned expiry date of the contract is reached. The STI estimates that the authorized funds for the data transmission contract will likely run out by October 2016, two years before the expiry date originally planned for the contract. Consequently, at that point, the City could assign a new contract following a call for tenders.

<sup>3</sup> Excluding data related to the cellular telephony component since this aspect was not part of the scope of our initial audit.

<sup>4</sup> The amounts of \$31.0M\$ and 42.1M correspond respectively to the TELUS bids (before taxes) for the wireline telephony and data transmission contracts.

<sup>5</sup> A contingency of 20% of the amount of the bid (before taxes) is included in each of the contracts to cover the provision of additional goods and services requested by the City.

<sup>6</sup> Centre d'expertise en télécommunications.

Moreover, it could, if it deems it appropriate, consider authorizing additional funds, subject to the provisions stated in the *Cities and Towns Act* regarding this matter and related case law, to continue the contract according to the initially planned end date.

Given the circumstances and considering the representations that were made to the authorities when said contracts were awarded, it is imperative, in our opinion, that they be brought up to speed as soon as possible on the state of the telecommunications outsourcing project, including its financial framework, as well as possible scenarios, in order to decide on the strategy to use to ensure the continuity of the wireline telephony and data transmission services at the best cost and in accordance with contractual commitments.

Since this is an audit follow-up, we did not verify the accuracy of the data, calculations or hypotheses related to projected consumption that were used to set future service consumption up until expiry of the contracts. We felt it appropriate, however, to briefly comment on the primary sources of these discrepancies based on the available information.

### Wireline Telephony

On the one hand, we note in Table 2 that \$3M of the \$6.2M contingency must be used to cover the incurred and projected expenses of the TELUS contract. Various elements that were not originally planned for, including call centres, were added through contract change requests as additional services or through resolution of issues. These elements alone account for \$2.2M of the \$3M of the contingency used.

On the other hand, we note that \$4.1M of the contingency was allocated to the payment of expenses that are not attributable to the TELUS contract. This cost overrun results primarily from the fact that a certain number of phone lines had to be kept with the former provider, which was not planned for when the contract was awarded to TELUS. We noted this source of discrepancy during our last follow-up.

### Data Transmission

Table 2 shows an overrun of \$30.3M for incurred and projected expenses in relation to the amount granted, even though it already included a contingency of \$8.4M. As shown, \$12.1M of this overrun involves the TELUS contract while \$18.2M is related to expenses not attributable to said contract.

Two main causes explain this \$12.1M overrun related to the TELUS contract despite the use of the \$8.4M contingency. First, the specifications provided for the use of 9,610 network



sockets. During our 2011 follow-up, it was already established that 15,000 sockets would be needed whereas now the needs estimated in the financial framework are closer to 17,000 sockets. Moreover, the socket-based model recommended in the specifications that was also supposed to be applied to the data transmission network of the Service de police de la Ville de Montréal (SPVM) could not be implemented. Operational and security constraints meant that only the card-based model met the needs of the SPVM, thereby resulting in a significant cost increase.

In terms of the \$18.2M overrun not attributable to the contract awarded to TELUS, this can essentially be explained by the fact the certain data transmission links will remain with other providers for the duration of the contract due to circumstances that were not taken into account during the contract awarding process.

## Conclusion

We find that the financial framework has not yet been approved by the Service des finances and that it has not yet been submitted to the authorities to inform them of its deficit position.

Consequently, and considering the situation mentioned previously, we maintain our recommendation that the STI, together with the Service des finances, finalize the financial framework, inform the Direction générale of it, and present it to the authorities together with the Direction générale.

## 4.3. Contract Management Framework

### 4.3.A. Background and Findings

The failure to implement the tools provided for in the contract resulted in our maintaining part of our 2009 recommendation. This part dealt with the STI identifying and designing controls to be implemented specifically to ensure compliance with service levels and the billing rules for the provision of services to client units.

In August 2012, in order to come to a mutual agreement on items that were still pending in the contracts and, in particular, the delivery of tools, a settlement agreement and release was signed. This document provides the list of deliverables, the delivery schedule, and the approval mechanisms that both parties had to adhere to in exchange for the release of the amount withheld. This agreement even provided for penalties in case of delays with regard to the agreed deadlines.

According to the documents submitted to us, the tools were delivered within the agreed deadlines. We did not attempt to obtain more evidence regarding the delivery dates, but we were able to ascertain that these tools are now implemented and functional. In this respect, we made the following observations with regard to control over compliance with contractual obligations pertaining to services levels as well as the billing of telecommunications services to client units.

### Reports on Service Levels

The reports, which allow for calculation of penalties related to service level defaults, were produced by TELUS as of late 2012. According to the release mentioned above, all penalties for defaults, particularly those concerning service levels, were abandoned for the period prior to the signature of the agreement.

Also, by mutual agreement between the parties, it was decided to remove certain elements from the specifications for which service level defaults were to be calculated due to the fact that they were difficult to measure or were not realistic.

TELUS must produce service level reports on the following five elements:

- availability;
- delivery of services;
- performance;
- service restoration;
- general services.

We were informed that the first official penalty calculation exercise was undertaken for the period of January to March 2013. According to our information, an amount of approximately \$5,000 related to this penalty was credited by TELUS in May of the same year. We were advised, however, that this calculation had to be redone in light of the analysis of time discrepancies between the TELUS data and those of the City.

According to the persons in charge at CET, in 2013 TELUS made two changes to tools that were used to produce its service level reports. These changes caused discrepancies between the City data and those of the provider that required reconciliation. We understand that these tools had a different way of interpreting the calculation methods already determined by the two parties for the purposes of applying the penalties. The calculation of penalties was thus ceased as of that time.

Upon completion of our work, no additional penalty had been calculated, given that all the reports had to be redone to make them compliant with the interpretations that had been agreed on. The CET informed us that it intended to resume application of the calculation of penalties very shortly. Given the impending expiry of the wireline telephony contract, this work will have to be finalized by the end of October.

## Billing Tool

A member of the CET team verifies billing compliance monthly, since the STI is responsible for these accounts for the entire City, whether it is an administrative unit or the STI that pays the bill. This person also monitors the use of network sockets and, as needed, notifies the units of sockets that have not been used for a certain time.

In 2014, after obtaining information on network socket activity, this individual performed a “clean-up” operation and notified the unit managers that there were sockets in their units that had not been used for a certain time. For the entire City, there were 4,585 unused sockets. According to the report obtained, requests were produced by the units after this information was sent to cancel more than 1,800 sockets.

Due to the fee schedule in effect, the City had already paid at least \$0.6M in processing fees<sup>7</sup> for these network sockets. Furthermore, the cancellation of these fees results in a recurring savings of over \$0.4M a year.

Apart from the usual change requests to open or close a socket that are primarily made during moves, no cancellation request of this magnitude had been made before.

It should be noted that all unit managers received training on the tool during its deployment; however, changes in the designated employee in the unit, a vague understanding of the various elements to validate, the desire to save on socket opening and closing costs following a departure or replacement, as well as a lack of motivation to follow-up on billing may be some of the reasons that explain the delays in cancelling the sockets.

While the City now has the tools allowing it to better manage the contracts, which it acquired in 2012, it turns out that the user-payer model implemented probably did not generate all the expected benefits, on the one hand because the specifications had not provided for everything related to the tools to be implemented, and on the other because all the units are not equally watchful when it comes to billing and the use of the network sockets.

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<sup>7</sup> A one-time processing fee is charged to the City for each of these sockets managed by TELUS. Initially, this fee was \$500. It was adjusted to \$350 on December 1, 2012, during settlement of the financial aspects.

## Conclusion

Although the effects of using the tools were not felt immediately after their implementation, we find that they have been delivered and that they are used. Given these circumstances, we therefore consider that the recommendation has been carried out. That being said, we recommend that a clean-up operation, as previously described, be performed at least once a year and that the calculation of penalties be resumed as soon as possible.

## 4.4. Continuity and Evolution of the Network

### 4.4.A. Background and Findings

The main element that had motivated us to maintain our recommendation in this regard upon completion of our follow-up report is the fact that the Configuration Management DataBase (CMDB) that was provided for in the specification has still not been delivered.

In addition, this database was supposed to enable the monitoring of network sockets as well as the evolution of the installed or replaced equipment since, based on the contracts signed in 2008, the successful bidder was to become the project manager for the management and evolution of the network.

Given these circumstances, it was necessary for the City to possess the proper monitoring tools to keep its inventory of installed and replaced equipment up to date. Moreover, the drafting of a detailed transfer protocol upon expiry of the contracts was essential to ensuring proper continuity of operations.

CET managers were given access to the CMDB. In addition, as illustrated in the previous section on the billing tool, network socket monitoring is accessible and seems to be working sufficiently, given the queries developed by the CET staff.

Lastly, with regard to the implementation of control processes to ensure continuity, the CET is aware of the issue with regard to the transfer of equipment at the end of the contract and has begun discussions with TELUS on this matter.

## Conclusion

Given the elements that were submitted to us regarding the tools and controls related to transition upon contract expiry, we consider that the recommendation has been carried out.

## 4.5. Disaster Recover Plans

### 4.5.A. Background and Findings

As stated in the tender documents for the telecommunications services outsourcing contracts: [TRANSLATION] *“Bidders must demonstrate that they possess the necessary equipment and disaster recovery plans to guarantee the proper functioning of the telecommunications services required by the City 24/7, without any major interruptions.”*

Up until 2012, however, the City had not been able to obtain the disaster recovery plans meeting the requirements of the specifications and no disaster recovery test could be performed.

Our examination revealed that, since that time, three network recovery tests have been performed, i.e., for the years 2012 to 2014.

The documents obtained state that some of the tests in question cover the TELUS network infrastructure and are not made available to outside sources. The CET managers confirmed to us, however, that they were able to consult them. The tests documented in the reports deal more specifically with the City infrastructure. These tests involve automatic recovery in the event of the failure of certain equipment.

The conclusion stated in the 2014 report is as follows:

*[TRANSLATION] The recovery tests planned and executed in collaboration with the Ville de Montréal (VDM) team showed that the high-availability and/or redundancy solutions in place on the VDM network, under the management of TELUS, ensure the technical continuity of the VDM data transmission network in the event of a major outage of electronic equipment or a circuit outage affecting the major sites of the VDM.*

We did not conduct a detailed audit of the quality of these tests, but they appear to us to be appropriate and to have been conducted according to rigorous standards.

## Conclusion

We consider that this recommendation has been carried out now that the recovery tests are conducted regularly as stipulated in the contract.

## 5. General Conclusion

In our 2011 follow-up, we concluded that three major issues had to be resolved to ensure the sound management of the telecommunications services outsourcing project.

Our examination revealed that the issue with regard to the implementation of control and management tools has largely been resolved. It is now a question of making the best use of such tools to optimize the use and cost of telecommunications.

The two other issues related to project governance remain present.

Although a certain amount of accountability reporting has been done with the Direction générale and the executive committee, a formal and systematic process has yet to be defined and implemented. This problem is not limited to the telecommunications outsourcing project. Apart from systematic budget monitoring, elements related to the achievement of goals and monitoring of risks are essentially performed on an ad hoc basis and the authorities receive very little information in this regard.

In addition, we found that the project's financial framework has still not been presented to the authorities. This situation is of concern to us given that it has now been established and recognized by the Service des technologies de l'information (STI) that the expected costs by the end of the planned term of the telecommunications outsourcing project, i.e., November 2018, will surpass the authorized financial framework by close to \$32M. If the data transmission contract with TELUS will be brought to term, i.e., until November 30, 2018, additional funds will have to be authorized by authorities. It appears, however, that from a legal standpoint this contract would be terminated upon the first of two possible occurrences: the funds authorized by the authorities upon awarding the contract run out or the expiry date stated in the contract documents is reached. Given that the funds for this contract will likely run out two years before initially planned expiry date of November 30, 2018, the City may have to award a new data transmission contract in fall 2016. As for the wireline telephony contract, it should come to an end on the initially planned expiry date of October 31, 2015.

Thus, given the circumstances and considering the representations made to the authorities when said contracts were awarded, it is imperative, in our opinion, that they be brought up to speed as soon as possible on the state of the telecommunications outsourcing project, including its financial framework, as well as possible scenarios, in order to decide on the strategy to use to ensure the continuity of the wireline telephony and data transmission services at the best cost and in accordance with contractual commitments.

If it is decided to award a new data transmission contract when the funds run out, i.e., in fall 2016, a minimum of one year will have to be planned to complete the bidding process, beginning no later than next fall and including the adoption of guidelines regarding telecommunications, the development of a contracting strategy, the drafting of specifications, the production of a draft contract, the launch of a call for tenders, a reasonable timeframe for the bidders to submit their offer, as well as the time required to analyze the offers received, to present the recommendation and have it approved by the authorities, all the way to the urban agglomeration council, and to ensure a smooth transition between the two contracts.

## 6. Comments from the Business Units Involved

### 6.1. Service des technologies de l'information

The Service des technologies de l'information will perform accountability reporting to City authorities by June 30, 2015, to present the current financial framework and propose a new strategic approach to telecommunications services at the City, including a project governance framework. This proposed new vision would be aimed at meeting the City's objectives with regard to telecommunications, following the expiry of the telephony contract in 2015 and expiry of the data transmission contract in 2016.

### 6.2. Service des finances

#### Scope of the Financial Framework

The auditor general defines the scope of the financial framework by considering all the cost elements linked to the telecommunications services activity:

- expenses directly attributable to the TELUS contract (and its contingencies) as presented in the decision-making summary approved by the authorities in 2008;
- expenses not attributable to the TELUS contract;
- operating expenses of the Centre d'expertise en télécommunications.

This definition of the financial framework encompasses all the costs inherent in this large-scale activity that was previously managed by the Service des technologies de l'information (IT) and funded collectively by the STI and all the City business units.

## Updated Financial Framework According to the Auditor General

The state of the project's budgetary position, as established by the auditor general, is as follows:

<b><i>Elements of the project's financial framework deficit</i></b>	<b><i>(\$M)</i></b>
1. <i>Expenses attributable to the TELUS contract (and its contingencies)</i>	<i>(8.9)</i>
2. <i>Expenses not attributable to the TELUS contract</i>	<i>(22.3)</i>
3. <i>STI-CTE (management and control of service outsourcing)</i>	<i>(0.7)</i>
	<i>(31.9)</i>
<b><i>Deficit by element</i></b>	
1. <i>Wireline telephony</i>	<i>(0.9)</i>
2. <i>Data transmission</i>	<i>(30.3)</i>
3. <i>STI-CTE (management and control of service outsourcing)</i>	<i>(0.7)</i>
	<i>(31.9)</i>

In order to come to a conclusion on the reliability of the projected deficit of \$31.9M, certain premises are needed to validate it and, if applicable, establish the additional budget needs that may be required in the financial framework of the project (and of the City) for future fiscal years:

- Ensure the accuracy and completeness of the reference budget that the auditor general uses to establish the project deficit. This premise calls for particular attention on our part since past financial results seem to show that this activity related to data transmission was entirely financed from the existing budgets of all the City's units, both from the operating budget as well as the investment budget. In this regard, over the years, no unit has made any request for additional funds specifically for this activity.
- Divide this projected potential benefit between the operating and investment budgets (PTI), identifying the recurring and non-recurring elements for the operating budget.
- For the expenses directly attributable to the TELUS contract, separate the past deficit portion (prior to November 30, 2014, the end date of the auditor general's audit) and the estimated deficit for future fiscal years, up until the contract expiry in 2018.

This involves additional work to corroborate the evidence that the STI and the auditor general have with regard to the telecommunications services outsourcing project and the overall management of this important support activity for City operations.



The Service des finances has ensured its collaboration in validating the financial framework produced by the STI.

## 7. Comments of the Auditor General

**We feel that the content of certain comments made by the Service des finances gives the impression that the financial framework of the telecommunications services outsourcing project was updated by us, or that we are the authors of the “*state of the project’s budgetary position.*” We therefore feel it is important to reiterate that, as stated in our audit follow-up report, the financial framework we are referring to was produced and updated by the Service des technologies de l’information. Since it was an audit follow-up and as reflected in our report, we did not validate the completeness of the data, the accuracy of the calculations or the hypotheses in support of the determination of incurred and projected costs.**