



TORONTO STAFF REPORT

January 31, 2005

To: Audit Committee
From: Auditor General
Subject: Telecommunication Services Review

Purpose:

To report on the results of the Auditor General's review of the management of the City's telecommunication infrastructure for voice and data services within the City of Toronto.

Financial Implications and Impact Statement:

The adoption of certain recommendations contained in this report will strengthen internal controls and result in efficiencies and cost savings. It is estimated that annual savings of at least \$300,000 can be achieved by transferring certain employees to a more cost-effective cellular telephone plan and deactivating cellular telephones that are no longer in use. Our review also clarified overpayments of telephone accounts that have resulted in a one-time recovery of \$120,000.

The implementation of other recommendations in this report may require additional resources. The extent of the resources is not determinable at the present time.

Recommendations:

The responsibility for the implementation of the recommendations in this report is directed to the appropriate staff under the current administrative structure of the City. However, this responsibility will need to be redirected to appropriate management once the new Corporate administrative structure is implemented in April of 2005.

It is recommended that:

- (1) City Council direct that this report be forwarded to all major City Agencies, Boards and Commissions. These entities be required to review the recommendations in this report to determine whether or not they have relevance to their operations and report to the

November 2005 meeting of the Audit Committee on the results of their reviews, including any action taken or proposed;

- (2) the Commissioner, Corporate Services, ensure that new contracts are properly reviewed, approved and executed prior to the termination of the previous contract;
- (3) the Commissioner, Corporate Services, evaluate whether or not there is the potential for the recovery of fees paid to the network service provider in regard to the non-performance of certain provisions in the contract. In addition, the Commissioner, Corporate Services, consider including in contracts, where appropriate, remedies for non-compliance of contract terms and conditions. Such potential remedies to include liquidated damages (penalty clauses) for non-performance;
- (4) the Commissioner, Corporate Services, ensure that all appropriate contracts contain the necessary insurance guarantee provisions, that renewals are executed as required, and documentation to be provided is received in a timely manner;
- (5) the Chief Administrative Officer, in the development of its contract management framework, develop a standard template which identifies in a summary form all relevant contract revisions such that:
 - changes from the previous contract terms are highlighted;
 - appropriate performance requirements are highlighted; and
 - prices, costs and other relevant details are identified;
- (6) the Chief Administrative Officer, in the development of its contract management framework, ensure that the responsibility for reviewing contract terms and conditions is clearly articulated. The process for determining whether or not invoices submitted by vendors are in compliance with contract provisions should also be clearly defined;
- (7) the Commissioner, Corporate Services, in consultation with the Chief Financial Officer and Treasurer, review the accounting process to ensure that any credits for discontinued land line and data services are tracked and received. In addition, the Commissioner, Corporate Services, ensure that at least once a year, the number of telephone lines, voice mail and data circuits billed by the vendor is reconciled to the City's inventory records. Differences should be appropriately reviewed and adjustments be made where appropriate;
- (8) the Commissioner, Corporate Services, in consultation with departments, review the activation of telephone long distance calling features to ensure that such capability is only provided on a need-to-have basis and is removed from telephones located in shared or open areas. Where it is necessary to have the long distance feature activated on telephones located in shared or open areas, long distance activity for these telephones be monitored monthly;

- (9) the Commissioner, Corporate Services, in consultation with the service providers, ensure that an appropriate level of cellular telephone billing information is provided to all departments. Departments ensure that controls are in place for the recovery of non-business related calls;
- (10) the Commissioner, Corporate Services, review the invoice validation practices in relation to the provider of Internet services. Where billing amounts exceed a predetermined threshold, such differences be reviewed with the provider;
- (11) the Commissioner, Corporate Services, in consultation with departments, expedite a comprehensive review of the use of cellular telephones and pagers by all City departments. The review should include an assessment of each department's communication needs and the identification of cost saving opportunities such as the pooling of unused cell phone usage;
- (12) the Commissioner, Corporate Services, review on an ongoing basis the extent of cellular telephones where there has been no activity for a period of time and where appropriate, ensure that such telephones are deactivated. Inactive cell phones be returned to the Corporate Services Department for disposal or reassignment;
- (13) the Commissioner, Corporate Services, require that the vendor provide the City with information relating to all telephone lines that have not been used for a predetermined period of time. This information be provided to the appropriate departments for review and validation, and lines which are no longer needed should be disconnected;
- (14) the Commissioner, Corporate Services, ensure that the Network Services Unit monitor the use of data circuits on a periodic basis and data circuits identified as no longer needed should be disconnected;
- (15) the Commissioner, Corporate Services, ensure that discounts for longer-term cellular telephone subscriptions are considered when acquiring cellular telephones. In addition, procedures be implemented to ensure cellular telephone subscription rebates are identified, tracked, received and accounted for appropriately;
- (16) the Commissioner, Corporate Services, perform a one-time validation of chargeable data circuits used by the City with the inventory records in the Network Inventory Management database;
- (17) the Commissioner, Corporate Services, at a minimum of once a year, request departments to validate the complete inventory of all cellular telephones. The results, listing the staff member assigned to each cellular telephone, be forwarded to the Telecommunication Services Unit to update their inventory records;
- (18) the Commissioner, Corporate Services, during the review of the Corporate Disaster Recovery Plan, give consideration to the need for the development of a contingency plan in connection with its Internet services;

- (19) the Commissioner, Corporate Services, finalize and communicate to all departments the policies, procedures and standards for telecommunication services by the end of June 2005;
- (20) the Commissioner, Corporate Services, in consultation with the Chief Financial Officer and Treasurer, ensure that budget details for all telecommunication services costs are appropriately established in the City's accounting system; and
- (21) the Commissioner, Corporate Services, report back to the November 2, 2005 Audit Committee on a detailed action plan, including details of specific staff responsibility and time frames in regard to each one of the recommendations in this report.

Background :

The Auditor General's Office conducts risk assessments to identify and prioritize potential areas for review. As a result of this exercise, a review of the management of the City's telecommunication infrastructure for voice, data and messaging services used was included in the Auditor General's Annual Work Plan for 2004. Reasons for this selection included:

- with annual payments exceeding \$20M (\$16M for land lines and \$4M for wireless) the City of Toronto has a significant financial commitment in meeting its telecommunication service needs;
- effective administration of telecommunication services and costs involve the integration and co-ordination of effort from staff throughout the City, including staff from the:
 - Computer Operations and Telecommunication Services Unit, Information and Technology Division, Corporate Services;
 - Contract Management Office, Information and Technology Division, Corporate Services;
 - Accounts Payable, Accounting Services Division, Finance; and
 - Finance and administration units in each department.
- billings for telecommunication charges are the end result of the provider processing large volumes of transactions (for the City in excess of 100,000 transactions per month) for multiple services which are billed using various rates and plans. This combination of factors increases the likelihood for billing errors;
- consistent with other utility providers, payments are based on a summary invoice prior to verification of billing details; and

- there are continual changes to the telecommunications services used, including the deactivation of certain equipment, the expansion of e-commerce services provided and the increased use of wireless products.

The Corporate Services, Computer Operations and Telecommunication Services Division, manages all telecommunication assets and services contracts in the City of Toronto departments. Administration of these assets and services are subject to the terms and conditions of two agreements that City Council approved at its meeting of September 22, 23, 24 and 25, 2003. At that meeting, Council authorized a Master Telecommunications Service Agreement with Bell Canada to provide services relating to the City's telecommunication infrastructure requirements for both voice and data services. Council also approved entering into a second agreement with Bell Canada for the provision of telephone lines through a central system (Centrex System).

The contractual cost for services provided under the Master Telecommunications Service and the Centrex System agreements is approximately \$80 million. These agreements have a five-year term and will expire January 14, 2009.

The City of Toronto also uses wireless technology in carrying out many of its activities. An inventory of approximately 5,900 active cellular and 2,700 active paging units, with an additional inventory of about 2,000 non-activated units used as needed for special events and contingency response is maintained. Currently, the City has service agreements with five providers; Bell Mobility, Rogers AT&T Wireless, Telus Mobility, Verizon Wireless and FIDO. The cost for the wireless services is approximately \$4.2 million annually.

An additional agreement for the provision of Internet services also exists with MCI Canada. This service is provided under a three-year agreement that expires December 31, 2005. The annual payments under this agreement are approximately \$200,000 per year.

There are three units, (Telecommunication Services, Network Services and, Systems Products and Services) within the Computer Operations and Telecommunication Services Division of the Corporate Services Department that are responsible for managing different aspects of the telecommunication services used by the City. A brief description of each unit's responsibilities is as follows:

- The Telecommunication Services Unit is responsible for purchasing all telecommunication voice equipment, assigning new telephone numbers and voice mail accounts, moves, changes and deletion of all lines, voice mail and cellular telephone services. The Unit maintains detailed records of equipment and associated lines and mailboxes. There are over 900 City locations with approximately 27,000 voice lines and terminals, mailboxes for over 14,700 users and approximately 8,600 wireless devices. Charges for equipment and services are summarized under approximately 2,900 billing numbers and invoices are sent to a centralized location (Finance) for payment.
- The Network Services Unit designs and manages the City's network infrastructure, including the communication links provided by Bell Canada. The network connects to over 750 locations and 10 major sites, including the main communications centre. The

network has connections to various organizations, such as the Province of Ontario, Toronto Transit Commission, Toronto Police Service and there is a link to the City's Internet service provider.

- The Systems Products and Services Unit manages the Internet services provided to the City.

Audit Objectives and Scope

Our objectives for reviewing the delivery of the telecommunication services in the City of Toronto were to determine how well the City manages and oversees telecommunication related contracts and controls telecommunication service costs. The audit objectives were achieved through an evaluation of:

- the effectiveness of the administration of telecommunications provider or vendor contracts;
- the administrative and system controls in effect to ensure the accuracy of billings and payments to vendors;
- the practices used to ensure telecommunication services are received by the City in the most cost-effective manner (e.g., that employees are placed in appropriate cellular telephone plans); and
- compliance with policies and procedures including the acquisition of telecommunication services and the reimbursement to the City for personal telephone calls.

Our review included:

- interviews with staff;
- an examination of telecommunication contracts;
- a review of relevant policies, procedures and related documents;
- an analysis of electronic data using specialized audit extraction and analysis software; and
- a review of similar audit reports prepared by other jurisdictions.

Executive Summary

Many of the issues identified in this report relate to an ineffective contract management process. This has been a City-wide issue identified in previous audit reports, some of which date back to the early years of amalgamation.

The Chief Administrative Officer has identified the need for effective contract management practices across the City. To this end, the Internal Audit Division has made the enhancement of contract management a priority. A contract management improvement project led by the Acting Commissioner, Works and Emergency Services, and comprised of staff from across the City, has

been launched to develop contract management principles, guidelines, controls and training for staff throughout the City.

While this report relates to the contract management process relating to telecommunication services, it is likely that many of the recommendations in this report relate to the management of other contracts throughout the City.

The majority of the concerns raised in this report are basic good contract management practices, which are not being followed. It is important that individuals responsible for contract management practices are held accountable for their actions where such practices are not being followed.

Concerns identified included:

- lengthy time required to negotiate contracts;
- non-compliance of contract terms by vendors;
- invoices lacking appropriate review and approval;
- non-validation of services provided;
- the time required to finalize policies and procedures;
- non-review of unusual transactions;
- missed opportunities to take advantage of promotional rebates;
- an ineffective process to track receipt of promotional rebates;
- non-deactivation of unused equipment; and
- inventory systems that contain incomplete data.

Elaboration on each one of the above concerns is contained in this report.

Summary of Significant Audit Observations

- significant delays occurred in finalizing and signing certain telecommunications contracts. These delays resulted in additional costs to the City in the range of \$500,000 to \$585,000, which could have been avoided;
- the City would benefit from annual savings estimated to be at least \$300,000 by expediting reviews commenced in early 2004 aimed at transferring employees to a more cost-effective cellular telephone plan and deactivating many cellular telephones that are no longer in use;
- the City has made overpayments of \$120,000 for Internet and long distance telephone charges from January to July 2004. Although the amount of \$120,000 has now been recovered, there is no process within the Finance Department to identify and provide assurances that the City is reimbursed for such overpayments;

- there was a significant delay by the service provider in meeting the contractual requirement to provide the City with access to reports located on the vendor's Web site. Such access was arranged to provide the City detailed information on network utilization and data communications efficiency. Although these reports were to become available on the effective date of the contract, it took eight months before the City was able to access these reports;
- liquidated damages (penalty clauses) for non-compliance with contract terms, conditions and obligations are not included in the agreement with certain service providers;
- telephone charges are not consistently reviewed and validated by departments;
- the ability of the City to effectively administer and manage its telecommunication services and assets is limited by the functionality of the inventory systems. These systems are unable to provide the level of reporting and integration required to manage billings and validate charges;
- Corporate policies, procedures and guidelines for the purchase, issuance and acceptable use of telecommunication services have not yet been issued. Many of these policies and procedures were drafted in 2003 and one dealing with the purchase of cellular telephones is dated as far back as December 2001;
- there is no contingency plan for Internet services should the single link with the provider of Internet services become unavailable; and
- there is a need to improve the City-wide administration of the budget process relating to telecommunication services.

Comments:

Certain recommendations contained in this report may have relevance to telecommunication services at the City's major Agencies, Boards and Commissions. Consequently, it is suggested that this report be forwarded to each one of these entities for their review, analysis and consideration.

Recommendation:

1. City Council direct that this report be forwarded to all major City Agencies, Boards and Commissions. These entities be required to review the recommendations in this report to determine whether or not they have relevance to their operations and report to the November 2005 meeting of the Audit Committee on the results of their reviews, including any action taken or proposed.

A. Contract Management Processes and Practices Need to be Strengthened

Signing and Negotiating Contracts

Delays in finalizing the contracts for long distance and Internet services had significant adverse financial implications for the City.

Prior to January 2004, there is no evidence of any written agreement between the City and the provider of long distance telephone service. As a result, the City continued to pay for long distance calls at rates which were substantially higher than the prevailing market rate. The decline in rates for long distance calls began in 2000 and by 2002 were approximately 40 percent to 50 percent lower than the rate the City was paying. A recalculation of the City's charges for long distance calls placed in North America during 2002 and 2003 indicates the City's cost for long distance calls could have been reduced by \$275,000 to \$360,000.

In addition, in 2002, the City's Internet service was being provided by MCI Canada according to a previously signed contract that would terminate on December 31, 2002. In June 2002, the City issued a Request for Quotation for Internet services. The terms of this Request for Quotation were such that respondents were asked to provide a draft service level agreement that would be subject to further negotiation. After evaluating the responses received, it was recommended in December 2002 that the City begin negotiations with MCI Canada as the City's Internet service provider.

Extensive negotiations followed and the contract with MCI Canada was not formally signed until June 2004. At that time as a result of negotiations, MCI Canada agreed to make the newly negotiated rates retroactive to March 1, 2004. The primary reason for the delay in signing the MCI Canada contract was the significant length of time it took to negotiate terms acceptable to both parties. We understand that at the time, there was a considerable backlog of information technology work within the Legal Services Division and limited in-house expertise in information technology related contracts. Legal Services addressed this backlog by temporarily using outside legal counsel. The combination of the process required to obtain outside counsel and the extensive negotiations with MCI resulted in the agreement only being finalized in June of 2004.

The delay in finalizing the contract meant the City continued to pay for its Internet service using the higher rates contained in the old contract from January 2003 to February 2004. If the rates in the new contract had taken effect as of January 1, 2003, the City's payment for Internet services would have been reduced by approximately \$16,200 per month. Since the City did not benefit from the rate reduction from January 2003 to February 2004, a period of 14 months, the City paid approximately \$225,000 more for its Internet services than it would have if this contract had been concluded earlier.

We have been informed that the current turnaround time for finalization of agreements submitted to the Legal Services Division has significantly improved. Legal Services, in turn, advises that the full-time dedication of two internal Information Technology Law specialist lawyers is a primary reason for this improvement.

Recommendation:

2. The Commissioner, Corporate Services, ensure that new contracts are properly reviewed, approved and executed prior to the termination of the previous contract.

B. Compliance with Contract Terms and Conditions

We noted significant delays in compliance by vendors with certain terms, conditions and obligations of contracts.

Provision of On-line Reports

The Master Telecommunications Agreement with the provider states that the City will be provided on-line access to various reports, including a report on network utilization and data communication efficiency. These reports are provided to assist the monitoring of network activity. However, we have been advised that despite continued follow-up by the Network Services Unit for access to these reports, the City was not granted access until October 2004, a delay of over eight months from the contract's effective date of January 15, 2004.

Although the City was able to monitor its network activity using summary reports provided by the vendor, it was not able to take advantage of additional detail reports and the accompanying on-line administrative tools as contracted. The availability of these reports and tools would have improved the City's ability to more effectively manage its network. We are not in a position to evaluate whether or not the City suffered any losses as a result of not having access to this data.

Recommendation:

3. The Commissioner, Corporate Services, evaluate whether or not there is the potential for the recovery of fees paid to the network service provider in regard to the non-performance of certain provisions in the contract. In addition, the Commissioner, Corporate Services, consider including in contracts, where appropriate, remedies for non-compliance of contract terms and conditions. Such potential remedies to include liquidated damages (penalty clauses) for non-performance.

Insurance Guarantees

Insurance guarantees included in many contracts provide for insurance against public liability claims for personal injury including death and property damage. When damages arise as a result of the City using a vendor's product or services and it can be proven that they are a result of a problem caused by the vendor's system, the City, or its insurer, would be able to make a claim against the vendor. Where such guarantees do not exist, the City's insurer could claim that the City has not exercised due diligence and refuse any portion of a claim that should have been covered by a guarantee from the vendor. Certificate of Insurance have not been received from Bell Canada and MCI Canada. This reduces the City's ability to make an insurance claim in the event of damages arising out of a network failure and a subsequent dispute with the vendor over responsibility.

We have advised staff in the Contract Management Office of this matter and the guarantees have since been received.

Recommendation:

4. The Commissioner, Corporate Services, ensure that all appropriate contracts contain the necessary insurance guarantee provisions, that renewals are executed as required, and documentation to be provided is received in a timely manner.

Contractual Changes

In performing the day-to-day tasks associated with any contract, such as reviewing invoices and making payments, staff become accustomed to what is required and expected as a result of the terms of the contract. When contracts are renewed, there can be significant changes in the terms. A summary of the key changes between a new contract and the previous contract would improve the efficiency and effectiveness of monitoring compliance with the contract and associated payments. The City does not follow the practice of highlighting, for the benefit of administrative and operational staff, major changes between new contracts and the previous contracts.

Recommendation:

5. The Chief Administrative Officer, in the development of its contract management framework, develop a standard template which identifies in a summary form all relevant contract revisions such that:
 - changes from the previous contract terms are highlighted;
 - appropriate performance requirements are highlighted; and
 - prices, costs and other relevant details are identified.

Such information be made available to the originating department and the Purchasing and Materials Management Division and Accounts Payable Unit of the Finance Department.

C. Increased Review of Telephone Charges Is Warranted

Our review of transactions and payments related to the City's telephone services indicates that incorrect telephone charges or billing errors are not always identified and followed up in a timely manner. In addition, charges billed are not always reviewed to ensure they are the result of valid business calls.

Pro-active Follow-up of Billing Errors

In 2004, the City of Toronto entered into new contracts with Bell Canada and MCI Canada. A review of invoices and supporting records revealed that in both cases the City has been billed according to the rate specified in previous contracts. As a result, we estimated overpayments of \$120,000 were made by the City, but subsequently recovered.

The new contract with Bell Canada took effect January 15, 2004. We reviewed the invoices and supporting records received from Bell Canada for the period January to May 2004 and determined that the rates billed for long distance and toll-free calls had not been changed to reflect the new contract. Staff indicated they were aware that the City had been billed using the previous rate, however, they were unaware of the amount of the overbilling. Staff were of the view that this overpayment would not be significant. Staff also indicated that the vendor had been notified verbally of the billing error in May of 2004.

Prior to our review, there is no written communication with Bell Canada in regard to the billing error, so consequently, we were unable to confirm when the vendor was first notified. In addition, neither the Accounts Payable Unit nor the Telecommunication Services Unit quantified the amount of the overpayment and there is no evidence to indicate that a process was in place to ensure the City received the full credit for the overpayments. The Telecommunication Services Unit and Accounts Payable Unit were relying on the vendor to accurately calculate the amount of the overpayment and provide the City with the corresponding credit.

Our analysis of the telephone records from January to May 2004 indicated that the City was over-billed in excess of \$90,000. In July 2004, we notified staff in the Telecommunication Services Unit and Accounts Payable Unit of our calculation and the approximate amount of the overpayment. Since then, action has been taken and in December 2004, the City received a credit of \$91,632 for the overpayment.

A similar situation occurred with payments associated with the contract between the City and MCI Canada for the provision of Internet services. The contract signed in June 2004 had an effective date of March 1, 2004. From March to July the City overpaid for its Internet services by \$30,000. A review of the August 2004 invoice confirmed that the City was still being billed at the old rate. The City has now received the credit for the overpayment.

There is no process in place to ensure that credits for the overbillings are in fact received. The responsibility for this process is currently unclear and as a result, it is possible that such credits may not be appropriately received or accounted for.

Recommendation:

6. The Chief Administrative Officer, in the development of its contract management framework, ensure that the responsibility for reviewing contract terms and conditions is clearly articulated. The process for determining whether or not invoices submitted by vendors are in compliance with contract provisions should also be clearly defined.

Validation of Disconnected or Newly Added Lines or Features

There is an opportunity to further improve the procedure for ensuring the City is not billed for discontinued land line and data services and, where such billings occur, that the appropriate credit is received.

Payments for invoices received for the provision of voice and data services are handled in a manner similar to other “utility” bills. This means that after certain checks such as ensuring that billing numbers listed on the invoice agree with the City’s record for billing numbers, payment is made. Detailed checking, if any, of the invoice is carried out after payment has already been made.

In an organization the size of the City, there is regular movement of staff and therefore additions and deletions to existing telecommunication services. There are approximately 200 voice and 10 data related change orders issued each month. Any time there is a change to the service there is the possibility that the vendor may make an error in the related charges to the amount billed by either continuing to charge for a terminated service or incorrectly charging for a new service.

The control process to ensure the billing accurately reflects changes to telephone services is the responsibility of the Telecommunication Services Unit. The details of the change orders are compared to equipment records received from the vendor at the time of the billing. Once the change has been implemented, the City’s inventory records are updated. While this is an effective exercise to validate that the provider has correctly responded to a request to disconnect or add a line and remove or add a feature, it is designed primarily to ensure that the inventory records of telecommunications equipment and services is accurate. The current process does not provide adequate assurance that the City has received appropriate credits for discontinued services. This is of particular concern when the change occurs in one billing period and the credit is to be received in a following billing period or where multiple changes are made under the same account number.

Recommendation:

7. The Commissioner, Corporate Services, in consultation with the Chief Financial Officer and Treasurer, review the accounting process to ensure that any credits for discontinued land line and data services are tracked and received. In addition, the Commissioner, Corporate Services, ensure that at least once a year, the number of telephone lines, voice mail and data circuits billed by the vendor is reconciled to the City’s inventory records. Differences should be appropriately reviewed and adjustments be made where appropriate.

Long Distance and Other Charges for Land Line Telephone Calls

City staff periodically are required to make long distance telephone calls in the performance of their duties. The total long distance and other charges for 2004 was \$225,000 (2003 – \$528,000). Providing long distance capabilities on telephones raises the possibility that personal long distance calls could be made and charged to the City. In the past, to address this concern, Telecommunication Services Unit staff distributed copies of telephone bills to all the departments. Departments were expected to perform whatever review they felt necessary to ensure the City was reimbursed for any personal charges included on the bills. Management in the Finance Department determined this process was not cost justified based on the reimbursements being realized and, in 2001, discontinued the practice. Departments were advised they could obtain invoices directly from the Accounting Services Division should they so wish.

The telephone call records for land line services during the period January 2004 to May 2004 were reviewed using audit extraction software designed for the analysis of data. This extraction process allowed us to perform various analyses against all the transactions during this four-month period. As a result of our review, we noted the following:

- 1,950 calls were made to various overseas destinations resulting in a total charge of \$12,500. Some of these calls were to cellular telephone users;
- 1,100 calls were accepted as collect calls, including some that originated overseas, resulting in an amount in excess of \$4,000 billed to the City;
- 10,000 calls to various US destinations totalling over \$12,500 as billed, (subsequently reduced to \$3,500 when the rates in the new contract were applied);
- 100 operator-assisted conference calls totalling \$7,000; and
- 9,200 directory assistance calls totalling \$6,500.

While it is possible, though unlikely, that none of the above calls were of a personal nature, departmental efforts to recover costs for personal calls varied. There is a need for a consistent City-wide procedure to ensure that staff reimburse the City for personal long distance calls.

We also noted that certain of the long distance charges relate to calls placed from telephones that are shared or are located in common or open areas such as at a reception desk or in lobbies. As these telephones are often accessible by many individuals, including the public, there is an increased risk that they could be used for personal long distance calls.

In an effort to ensure that long distance calling capability is either restricted or provided only as needed, the Telecommunication Services Unit recently informed departments of the options available to them to restrict long distance calling capabilities. A review of telephone lines needs to be performed by each department, with a particular focus on the capability of telephones that are shared or located in open areas.

In order to address the risk that staff might use City telephones to make personal long distance calls, a staff Committee recommended that any long distance call in excess of \$10 be reviewed. The Committee also recommended that cases where calls to any one number exceed \$10 in total in any one month be reviewed. Information based on these criteria is currently being distributed electronically to departmental staff. The Committee also undertook to develop and communicate a policy for the long distance use and reimbursement of personal calls made by staff. In December, 2004 this policy was communicated to staff.

Recommendation:

8. The Commissioner, Corporate Services, in consultation with departments, review the activation of telephone long distance calling features to ensure that such capability is only

provided on a need-to-have basis and is removed from telephones located in shared or open areas. Where it is necessary to have the long distance feature activated on telephones located in shared or open areas, long distance activity for these telephones be monitored monthly.

Validation of Cellular Telephone Charges

The City Auditor, (now the Auditor General), in a report dated January 15, 1999, entitled “Review of Staff, Councillors’ and Mayor’s Office Expenses” recommended that “cellular telephone bills be reviewed and approved by the appropriate departmental staff and any personal calls reimbursed to the City”.

The City’s ability to exercise a reasonable level of control over cellular telephone charges has been impacted by the limited availability of electronic billing data from the vendors. As a result, complete distribution of billing data to departments for their review has not been achieved.

As part of this review, we analyzed electronic billing records provided by Bell Mobility for invoices dated January 1, 2004 – May 1, 2004. More current data was not available as Bell Mobility was implementing a new billing system at the time of our review. Although it is quite clear that there may be appropriate business reasons for certain of the usage indicated below, it is presented here as evidence that a certain level of verification and examination of cellular telephone usage is warranted. We found during those four months that:

- 8,072 cellular telephone calls made during non-business hours (between 12:00 a.m. and 4:00 a.m.) for a total extra billings of \$1,792; and
- 54 cellular telephones, on 3,316 occasions were used for transfer of data or to browse the Internet, in some cases for more than 30 minutes, incurring a total charge of \$8,181.

Unless departments review the monthly telephone bills and determine the purpose of the calls, there is no way the City will know whether the calls represent proper and valid business usage of cellular telephone services.

Recommendation:

9. The Commissioner, Corporate Services, in consultation with the service providers, ensure that an appropriate level of cellular telephone billing information is provided to all departments. Departments ensure that controls are in place for the recovery of non-business related calls.

Validation of Internet Usage

Charges for Internet services are based on the level of Internet activity (bandwidth) used by the City. The Systems Products and Services Unit carries out a reasonableness check based on previous billing history, factoring in any unusual events that may have happened during the month such as residents registering on-line for Parks and Recreation courses. However, since the

inception of the contract with MCI Canada, the City has not verified the activity billed by MCI Canada. It would be prudent for staff to take a snapshot of Internet usage at fixed intervals throughout the month and average the usage for the month. The results should then be compared to the billing received from MCI Canada. This exercise should be performed periodically to verify the accuracy of billings for Internet services.

Recommendation:

10. The Commissioner, Corporate Services, review the invoice validation practices in relation to the provider of Internet services. Where billing amounts exceed a predetermined threshold, such differences be reviewed with the provider.

D. Management of Telecommunication Costs

Use of the Most Cost-effective Wireless Plan

The Telecommunication Services Unit performs reviews of cellular telephone rate plans when they notice high usage costs or when departments request such a review. In addition, certain operational Units within the City, notably Emergency Medical Services Division and Parks and Recreation Division make their own cellular telephone service decisions without specific involvement from the Telecommunication Services Unit.

A review of cellular telephone usage performed by Telecommunication Services Unit on the request of the Auditor General's Office for Emergency Medical Services Division identified opportunities for savings which would have been noted earlier had the Telecommunication Services Unit reviewed the divisions cellular telephone usage.

In general, the current practice is to subscribe to a basic cellular plan when a cellular telephone is first activated. Although this is a reasonable approach, it also means that subsequent usage must be monitored to ensure that the basic plan is cost-effective. In our review of electronic records for 1,300 Bell Mobility users for the period from January 1, 2004 to May 1, 2004 we noted:

- the charges for additional airtime averaged \$11,900 per month or 21 percent of the monthly base rate. Transferring users to more cost-effective plans and exercising the City's option for pooling cellular telephone minutes, which allows the unused minutes of one user to offset the additional minutes used by another employee will reduce the overall cost to the City. In response to our request, staff in the Telecommunication Services Unit prepared an analysis that indicates that costs from just one provider, Bell Mobility, could be reduced by at least \$300,000 annually; and
- 57 cellular telephone accounts had airtime usage exceeding the basic plan minutes by \$50 per month for at least three months. The total charges for excess usage on these accounts were \$32,780 for the period reviewed.

The above analysis is based on one vendor. It is reasonable to expect that similar circumstances may exist with the other vendors. This expectation was confirmed in an examination of a random selection of invoices received from Rogers AT&T Wireless in January and February 2004.

Telecommunications Services began performing large scale reviews of cellular telephone usage in the Spring of 2004. A review for the Solid Waste Management Division recommended changes subsequently implemented, that projected a cost reduction of approximately \$5,000 monthly, or 30 percent. Additional reviews and account changes have been performed for other divisions and are in varying stages of review or implementation. Many other reviews have not yet been completed due to a lack of staff resources.

There are approximately 2,700 active pagers in use in the City. Approximately 1,160 of the pagers are referred to as alphanumeric and can handle text messages. The balance, are "basic" pagers that will only notify the pager owner of the caller's telephone number. The cost of an alphanumeric pager ranges between \$5 to \$10 per month more than the "basic" pager depending on the supplier. A review to exchange alphanumeric pagers for the "basic" pager where it makes operational sense, may be appropriate. Opportunities to replace cellular telephones with pagers should also be considered. We expect that this exercise would result in cost savings for the City.

Recommendation:

11. The Commissioner, Corporate Services, in consultation with departments, expedite a comprehensive review of the use of cellular telephones and pagers by all City departments. The review should include an assessment of each department's communication needs and the identification of cost saving opportunities such as the pooling of unused cell phone usage.

Unused Cellular Telephones

In our review of the electronic invoices available from Bell Mobility, dated from January 1 to May 1, 2004, we found there were over 200 cellular telephones with no activity for at least three months. The Telecommunication Services Unit conducted a similar analysis of the data for June to August 2004. This analysis determined the City paid a monthly charge for 140 cellular telephones, for which there was no activity from June to August 2004. Over the three-month time frame the City paid a total of \$15,900 for the monthly charges associated with these cellular telephones. Unutilized but active cellular telephones likely exist with the other vendors.

Recommendation:

12. The Commissioner, Corporate Services, review on an ongoing basis the extent of cellular telephones where there has been no activity for a period of time and where appropriate, ensure that such telephones are deactivated. Inactive cell phones be returned to the Corporate Services Department for disposal or reassignment.

Redundant Telephone Lines / Data Circuits

During our review we performed a comparison of the number of lines used at the City with the number of equipment such as telephones, fax machines, modems, etc., attached with each line. Our analysis indicated that 82 lines had no such device attached to them. Also, since certain lines are attached to several telephones, the actual number of lines that are not attached to any equipment is likely higher.

To ensure the City pays only for the lines and equipment it needs:

- departments are sent a list of equipment, including telephone lines and asked to confirm the items on the list or indicate any changes that are required; and
- throughout the year, staff in the Telecommunication Services Unit verify that the vendor has properly completed all change orders issued.

The effectiveness of these procedures is dependant on timely communication from departments that a particular telephone line is no longer needed. However, there is the possibility that departments may not inform the Telecommunication Services Unit immediately, resulting in the City paying for services it is not using. Currently, the Telecommunication Services Unit does not perform any independent analysis to identify the existence of inactive telephone lines.

We also observed that a process to monitor the utilization of data circuits does not exist.

Recommendations:

13. The Commissioner, Corporate Services, require that the vendor provide the City with information relating to all telephone lines that have not been used for a predetermined period of time. This information be provided to the appropriate departments for review and validation, and lines which are no longer needed should be disconnected.
14. The Commissioner, Corporate Services, ensure that the Network Services Unit monitor the use of data circuits on a periodic basis and data circuits identified as no longer needed should be disconnected.

Promotional Rebates

From time to time, vendors provide cellular telephone promotions. These promotions often include higher discounts or rebates for signing up for longer subscription periods. For example, in a promotion offered by one of the cellular telephone vendors a 24-month subscription had a \$150 rebate while a 12-month subscription had a \$50 rebate. The City's standard practice is to subscribe to a one-year plan (unless specifically requested by a user to subscribe to a 24-month plan). This practice does not allow the City to take full advantage of such promotional rebates.

In addition, the City does not have a process to track rebates. Receiving a rebate generally takes two to three billing periods to appear on the invoices. Unless the rebates are tracked, the City is at risk that rebates to which it is entitled may not be received.

Recommendation:

15. The Commissioner, Corporate Services, ensure that discounts for longer-term cellular telephone subscriptions are considered when acquiring cellular telephones. In addition, procedures be implemented to ensure cellular telephone subscription rebates are identified, tracked, received and accounted for appropriately.

Telecommunication Inventory Systems

There is a need to consolidate and expand the capabilities of the various inventory systems used to manage telecommunication assets and services in the City of Toronto. Data on the existing inventory systems should be validated for completeness and accuracy.

The City currently manages its telecommunication assets and services with the use of three separate inventory systems;

- Telecommunication Management System – for land line services;
- Network Inventory Management System – for data-line services; and
- Wireless Inventory Management System – for wireless services.

The value of these systems to control the cost of telecommunication services, monitor operational needs and provide a cross check for the accuracy of monthly charges is dependent on the completeness and accuracy of the data maintained. We found that reasonable reliance can be placed on the data maintained in the Telecommunication and Network Inventory Management systems but data in the Wireless Inventory Management system is incomplete and is in the process of being updated. We also observed these systems are limited in the type and number of operational reports that they can provide.

The Network Inventory Management System, developed late in 2003, contains an inventory of the data circuits provided by Bell Canada. The initial data loaded into the System was based on data provided by the vendor. Although the City performed some testing to verify the accuracy of the data, a complete physical inventory of data circuits has not been conducted and reconciled to the information maintained on the database.

The Wireless Inventory Management System developed in 2002 is the inventory system for cellular telephones and pagers. In reviewing the inventory records, we observed that user names do not consistently identify the cellular telephone user and some user names are assigned more than one cellular telephone. A unique user name is important to maintain accountability for the use and possession of the cellular telephone and pagers. The fact that cellular telephone purchasing is not fully centralized in the City adds to the difficulties in ensuring the completeness of the inventory details.

Recommendations:

16. The Commissioner, Corporate Services, perform a one-time validation of chargeable data circuits used by the City with the inventory records in the Network Inventory Management database.
17. The Commissioner, Corporate Services, at a minimum of once a year, request departments to validate the complete inventory of all cellular telephones. The results, listing the staff member assigned to each cellular telephone, be forwarded to the Telecommunication Services Unit to update their inventory records.

E. Other Issues

Contingency Plan for Internet Services

Currently, the only link between the City and its Internet Service Provider is through the use of a single cable. The City has no alternative plan to take effect if the link with the Internet Service Provider becomes unavailable. As increasing amounts of the City's operations are dependent on the Internet, any disruption in this service will result in a significant business interruption.

The Computer Operations and Telecommunication Services Division highlighted this risk in December 2002 at the time the Internet Service contract was awarded to MCI Canada. At that time, management responsible for delivering Internet services indicated an alternate connection would be implemented for mission critical applications. In the event of difficulties with the primary connection, Internet network traffic would be diverted to the alternate connection.

We are also aware that a project has been initiated to address the City's disaster recovery needs and were informed that this risk will be addressed as part of that exercise.

Recommendation:

18. The Commissioner, Corporate Services, during the review of the Corporate Disaster Recovery Plan, give consideration to the need for the development of a contingency plan in connection with its Internet services.

Policies and Procedures

The Telecommunication Services Unit has prepared draft policies, procedures and standards to address:

- the criteria and authorizations for purchase and issuance of land line and cellular telephones;
- guidelines for business and personal use; and
- procedures for the reassignment and return of cellular telephones, Internet access, etc.

The draft documents have not received final approval and therefore have not been communicated to City employees. The policy on long distance telephone usage was communicated to staff in December of 2004. However, management does not have any specific time frame to finalize the rest of the policies and procedures that have already been drafted.

Recommendation:

19. The Commissioner, Corporate Services, finalize and communicate to all departments the policies, procedures and standards for telecommunication services by the end of June 2005.

Effective Budgetary Control

We identified during our review that there were no budget details in the financial system general ledger accounts set up to monitor certain of the telecommunication services such as the network services. However, actual expenses have been charged to these individual accounts. To effectively monitor expenditures it is important to budget at the level of accounts consistent with departmental operations and then to periodically compare actual expenditures to budgeted amounts.

Recommendation:

20. The Commissioner, Corporate Services, in consultation with the Chief Financial Officer and Treasurer, ensure that budget details for all telecommunication services costs are appropriately established in the City's accounting system.

In order to ensure that each of the recommendations in this report are appropriately addressed, an implementation plan regarding each of the recommendations should be completed.

Recommendation:

21. The Commissioner, Corporate Services, report back to the November 2, 2005 Audit Committee on a detailed action plan, including details of specific staff responsibility and time frames in regard to each one of the recommendations in this report.

Conclusions:

The Chief Administrative Officer has made improving contract management across the City a priority. A contract management improvement project comprised of contract management guidelines, training and an internal audit process, is currently underway. In order to improve contract management practices, it is imperative that the contract management improvement project be completed as soon as possible, and the training of City staff with contract management responsibilities, be given immediate priority.

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