

## **Service Improvements Achieved Through Improved Business Practices**

<b>Date:</b>	February 8, 2013
<b>To:</b>	Government Management Committee
<b>From:</b>	City Manager
<b>Wards:</b>	All
<b>Reference Number:</b>	

### **SUMMARY**

---

This report and the accompanying Attachment A, entitled "Examples of Service Improvements Achieved through Improved Business Practices", provide information about how the City of Toronto is using data to drive business decisions in order to improve efficiency and customer service, similar to the CitiStat approach taken by Baltimore and other cities in the United States.

Although the City of Toronto's methods differ from CitiStat, the examples provided from five City divisions described in this report demonstrate that the same principles are being practiced in Toronto. This emphasis on using data to make informed changes to business practices has resulted in tangible and quantifiable improvements in productivity and enhanced customer service.

### **RECOMMENDATIONS**

---

**The City Manager recommends that:**

1. The Government Management Committee receive this report for information.

#### **Financial Impact**

There are no financial implications arising from this report.

## DECISION HISTORY

At its meeting on February 6, 2012, City Council adopted the Audit Committee's Report on "311 Toronto - Full Potential For Improving Customer Service Has Yet To Be Realized". In considering the report Council directed the City Manager report to the July 11 and 12, 2012 meeting of Council on applications that can be used to improve scheduling and other efficiency tools such as those used in Baltimore and Miami. <http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2011.AU5.2>

## ISSUE BACKGROUND

Many local governments, including the City of Baltimore in the United States, use data to identify opportunities for service improvements. This report provides examples of how City Divisions—with a particular focus on the five divisions that have their service request systems integrated with 311—have used data to drive their business practices in order to improve both productivity and the level of customer service provided using the same principles as those used in Baltimore.

## COMMENTS

There are many methods available to municipalities to inform and improve business decisions using data. One of the best known examples comes from Baltimore, MD, which uses an approach called "CitiStat". In April 2007 the American Centre for Progress released a report on the CitiStat model (see [http://www.americanprogress.org/wp-content/uploads/issues/2007/04/pdf/citistat\\_report.pdf](http://www.americanprogress.org/wp-content/uploads/issues/2007/04/pdf/citistat_report.pdf)). The report indicated that every two weeks in its CitiStat room, City of Baltimore department heads use data to explain performance improvements or declines to Mayor's office staff, followed by a question period. CitiStat has been credited with significant savings, in part because the City was experiencing high levels of absenteeism, overtime and sick leave time before CitiStat's implementation. CitiStat has eight full time employees devoted to this work.

The City of Toronto also uses data and other information to make changes to business practices in order to improve productivity and customer service. The five divisions that have work order systems integrated with 311 Toronto— Solid Waste Services, Toronto Water, Transportation Services, Municipal Licensing & Standards and Parks, Forestry & Recreation (Urban Forestry)—provide particularly good examples of service improvements made through improved business practices that are described in Attachment A.

Summaries of the service improvements described in Attachment A are as follows:

- Solid Waste Management Services – implemented a new system for collecting bulky metal items (white goods) that allowed residents to place these items at the

- curb on collection day for pick up as opposed to scheduling an appointment. This was more convenient for residents and used City resources more efficiently as it allowed for the redeployment of six positions to other waste collection activities.
- Urban Forestry – through increased analysis of data, implemented a proactive area-based tree maintenance program that significantly increased the productivity of a three person field crew allowing for the maintenance of between seven to nine large mature trees per day as compared to only one to two trees per day for reactive maintenance. This also contributed greatly to a reduction in the time required to complete a service request for tree pruning or removal from 18 - 24 months in 2007 to six months in 2012.
  - Municipal Licensing and Standards – through increased analysis of performance data from districts and by-law enforcement officers, reduced the average response time to service requests from 18.3 days in 2009 to 8.5 days in 2012, and reduced the average time to close an investigation file from 153.3 days in 2009 to 86.8 days in 2012. A team-based approach has also been used to focus existing resources on specific areas in order to improve service such as apartment building inspections (200 inspected in 2012 vs. 33 in 2008), and enforcement of the graffiti by-laws (5,077 service requests and pro-active investigations in 2012 vs. 1,387 in 2009).
  - Transportation Services –through increased monitoring of service request status by management, and changes in business practices made as a result of a lifecycle analysis of a typical service request, the Division met their published service standards for 96% of all service requests over the past three years as opposed to only 68% in 2008.
  - Toronto Water – implemented an automated vehicle locating system (AVL) in all first responder service vehicles and created a mapping application to display service request location and status. Together these systems will allow for better deployment of appropriate resources and improved monitoring of service request status in order to meet published service standards.

Most of the examples in Attachment A and summarized above, resulted in productivity gains allowing more work to be done and better customer service to be provided using the same resources. There are several common themes to the changes in business practices described including:

- The use of mobile computing for staff in the field in order to update work management systems in real time, and reduce the use of paper forms and manual data entry;
- The use of mapping systems for divisions to visually depict the numbers, patterns and status of service requests that assists in the deployment of resources and monitoring status so that appropriate action can be taken to ensure service standards are met;
- The provision of more detailed and current information in work management systems so that 311 Customer Service Representatives as well as divisional staff

can better inform customers who enquire about the status of their service request; and

- More analysis and monitoring of data by management to inform decision making and to take appropriate action when required.

Through the information available in divisional work management systems (WMSs), supplemented by new 311 Toronto business intelligence tools, General Managers and Executive Directors in the five divisions integrated with 311 are able to:

- Deploy resources appropriately across the City, including the shifting of resources when necessary, in order to deliver consistent times (recognizing the impact of different urban forms), for completing service requests; and
- Examine differences in productivity between different districts to identify additional training, support, or other follow up as required.

Another important observation is that, when resources allow, a greater emphasis on proactive maintenance and inspections initiated by staff is the preferred method of service delivery. In general terms, proactive work is systematic and predictable work planned out by each Division. Reactive work, in contrast, comes mostly from service requests initiated by the public via 311 Toronto.

Proactive work tends to be more efficient than reactive work. The deployment of staff, vehicles and equipment used to respond to individual service requests is not an efficient use of City resources. Wherever possible deployed resources for service requests are grouped by area and done in concert with pro-active maintenance in the area, but because service requests tend to be isolated incidents, path optimization between locations is difficult to achieve. The unproductive travel time between service requests is exacerbated by road congestion, and the time it takes to load and unload equipment, can quickly accumulate. Conversely, economies of scale are realized from undertaking planned (proactive) work in the same vicinity. Increased proactive work should also lead, over time, to a decrease in the amount of reactive work necessary.

Attachment A provides a good example of this with the proactive area-based approach to street tree maintenance, that allows a three person field crew to maintain seven to nine large mature trees in a day compared to only one to two trees per day for reactive maintenance. This increased productivity translates to a significant efficiency gain with the cost of proactive tree maintenance being \$139 per tree versus reactive tree maintenance of \$424 per tree.

### **New 311 Toronto Business Intelligence Tools**

In addition to the management information provided from divisional WMSs discussed in Attachment A, the five city divisions that are integrated with 311 and Councillors now have access to a wealth of data from 311 Toronto through a suite of online business intelligence (BI) tools. Staff and Councillors can view data on service requests over any specified time period since 311's launch in September 2009. These tools provides access

to service standards, the percentage of completed service request that have met those standards, the volumes of service requests and a view of service request locations on a map of Toronto.

These tools are very similar to those described in Baltimore's CitiStat approach in that elected officials are able to access and enquire about service request data for all of the Divisions integrated with 311 Toronto. Migrating business practices to become as proactive as possible, as outlined in many of the examples above, will still stand as the best way for Divisions to continually improve their efficiency, but the BI tools developed and offered by 311 Toronto will help staff and Councillors determine how to further improve the reactive work done in completing service requests from the public.

Other examples of work that has or is planned to increase efficiency and customer service are explained below.

### **Shared Work Order Management System**

Efforts are underway to establish an integrated Work Management System (WMS) for four operating Divisions: Toronto Water, Transportation Services, Solid Waste Management Services and Parks, Forestry & Recreation. The separate WMSs currently in use by these Divisions provide very little cross-divisional connectivity, and they do not interface with the City's financial and human resources systems. In addition, the costs of maintaining and upgrading the multiple systems, some of which are quite old, can be quite onerous and expensive.

This is a long-term project, still in the "discovery" phase. Procurement is estimated to occur late in 2013, while implementation would be phased in over a period from 2014 to 2018. Once the project is complete, the shared WMS will:

- Improve business efficiency by sharing resources for common deliverables, reduce sustainment costs, adopt best scheduling practices and enhance integration with SAP;
- Provide better service by providing integrated business processes across Divisions, improve reporting and tracking capabilities and enhance integration with 311 Toronto;
- Improve accountability by facilitating audits through the maintenance of electronic records and reduce the risk of errors and omissions; and
- Facilitate improved performance monitoring systems.

### **T.O. INview**

T.O. INview (see <http://www.toronto.ca/inview/>), which stands for Toronto Infrastructure View, is a web-based mapping system that allows staff and the public to view the locations of, and access important details about, planned capital construction projects across Toronto. This project improves customer service and awareness by providing public access to this information. It also helps City of Toronto divisions and other groups, such

as Metrolinx, TTC, Toronto Hydro and other utilities, coordinate their construction efforts in order to optimize the use of limited capital funding and reduce inconvenience to the public during periods of construction.

### **Toronto Building Electronic Service Delivery**

Toronto Building is changing its business practices to be more responsive and adaptive to the needs of the public, while at the same time improving efficiency. Building permits are now submitted and approved electronically through a number of different channels. Records are now stored and accessed more efficiently, printing costs have been reduced and the entire service is more environmentally friendly.

City Divisions are committed to maintaining a culture of continuous improvement with a focus on improving efficiency, providing a customer-centered approach to service delivery, and positively impacting the communities served.

### **CONTACT**

Lorne Turner  
Manager, Performance Management  
City Manager's Office  
Phone: (416)-397-0533; Fax: (416)-392-1827  
E-mail: lturner@toronto.ca

### **SIGNATURE**

---

Joseph P. Pennachetti  
City Manager

### **ATTACHMENTS**

Attachment A:  
Examples of Service Improvements Achieved through Improved Business Practices