
2007 BUDGET BRIEFING NOTE

Customer Information Systems

Background:

- In 2006, the Commission directed staff to undertake a review of what would be required to implement Internet Trip Planning. In order to appropriately respond to this request, staff advised the Commission that a review of the current and planned Geospatial Information Systems (GIS) and Global Position Systems (GPS) for the TTC must be undertaken. This review was to ensure that a common infrastructure would be put in place that all GPS applications must conform to. This would ensure that core infrastructure costs were minimized and would eliminate duplication of effort for common GPS initiatives. To assist with this review, outside contractor expertise from UMA was hired to work with staff.
- In January, 2007, the draft report of the findings of the above review was tabled with the TTC E-Committee. In essence, the report identified that:
 - 4 areas within the TTC were currently using different versions of GIS
 - Each of the above 4 were created as stand-alone functionality with no sharing of data
 - Duplication of effort to install and maintain the existing databases was occurring
 - Data inconsistencies between the 4 systems was occurring
- As a result, it was recommended that one core database of all GIS data be created. This would ensure consistency of the data provided; eliminate the duplication of effort; facilitate the introduction of new technology applications, such as Internet Trip Planning and Next Bus Arrival Systems. To create this core system, the consultant indicated that approximately \$500k would be required, with a timeline of 12 – 18 months to complete the work. Without the core GIS database creation, it would not be possible to realize the improvements to the current GIS data, nor could new initiatives, such as the Internet Trip Planning and Next Bus Arrival be undertaken.
- The TTC E-Committee recommended that staff bring forward an interim report to the Commission at the January meeting to obtain approval for the allocation of \$500k in the Capital budget, to allow staff to immediately commence the preparation work for creating the core GIS database. Further, staff were directed to table the final Geospatial Report from the consultant at the March Commission meeting, along with order of magnitude costs to commence implementation of Internet Trip Planning and Next Bus arrival, to take advantage of the core GIS information, along with other Customer Information Systems such as E-Commerce, which allows TTC riders to purchase fare media over the internet, and Service Disruption messages which could be broadcast to TTC customers through pagers, cell phones and blackberry devices. It is anticipated that these new initiatives would be addressed through the 2008-2012 Capital Program budget process.

- The below cost summary details the specific effort and costs for the initiation of the GIS core system implementation, resulting in the addition of \$500k in the 2007 Capital Budget submission for the TTC.

Capital Component	2007
GIS Software: License, install, configure, train:	
- Spatial Data Storage	\$30,000
- Web GIS	\$13,000
- Data Editing Concurrent	\$15,000
- Desktop GIS Concurrent	\$10,000
- Mobile GIS Software	\$2,000
Other Software: License, install, configure:	
- Oracle 10g (per CPU)	\$46,000
- Oracle Server Standard Edition (per CPU)	\$12,000
- Server - Win2003 (per CPU)	\$6,000
Hardware:	
- Server, UPS, Rack mounts etc. (Application)	\$10,000
- Server, UPS, Rack mounts etc. (Web)	\$10,000
- Server, UPS, Rack mounts etc. (Storage)	\$10,000
- GPS Data Collection Units (2)	\$13,000
- GIS Workstations (5)	\$30,000
Implementation Services:	
- Project Management	\$15,000
- Onsite Training	\$5,000
- System Architecture (Contractor)	\$50,000
Data:	
- City of Toronto Data Subscription	\$80,000
- GIS Layers Creation	\$120,000
Contingency:	\$25,000
CAPITAL TOTALS:	\$502,000

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