City of Burnaby

Meeting 2005 Nov 28

COUNCIL REPORT

FINANCE AND CIVIC DEVELOPMENT COMMITTEE

HIS WORSHIP, THE MAYOR
AND COUNCILLORS

SUBJECT: TELECOMMUNICATIONS REPLACEMENT

RECOMMENDATION:

1. THAT Council enact a bylaw to appropriate $1,045,000 (inclusive of GST) from Capital Reserves for the phased acquisition of telecommunications equipment as described in this report.

REPORT

The Finance and Civic Development Committee, at its meeting held on 2005 November 24, received and adopted the *attached* report recommending the purchase of telecommunications equipment.

Replacement of six telephone systems and the upgrade of the main City Hall telephone system are urgently required to ensure continued business operations. Phased replacement based on prioritized need undertaken over a period of 4 to 5 years will enable a smooth, cost-effective transition to newer technology.

Respectfully submitted,

Mayor Derek R. Corrigan
Chair

Councillor Dan Johnston
Vice Chair

Councillor Nick Volkow
Member

Copied to: City Manager
Chief Information Officer

City of Burnaby

Item .....
Meeting ..... 2005 Nov 24

COMMITTEE REPORT

TO: CHAIR AND MEMBERS
FINANCE AND CIVIC DEVELOPMENT
COMMITTEE

DATE: 2005 November 17

FROM: DIRECTOR FINANCE

SUBJECT: **TELECOMMUNICATIONS REPLACEMENT**

PURPOSE: To recommend the purchase of telecommunications equipment

RECOMMENDATION:

1. **THAT** Council be requested to enact a bylaw to appropriate $ 1,045,000 (inclusive of GST) from Capital Reserves for the phased acquisition of telecommunications equipment as described in this report.

REPORT

To deal with critical obsolescence issues Information Services has undertaken the development of a strategic plan for telecommunications encompassing all City facilities. The plan identifies solutions that address the varied needs of our user community, maximize opportunities for enhanced service delivery and resolve technological issues while minimizing cost and disruption to our users and their customers.

The plan also provides opportunities to introduce Voice-over-Internet Protocol (VoIP) technology on a limited basis, allowing for its phased implementation where appropriate. In simplest terms, VoIP permits the transmission of voice and fax information using the Internet (or a corporate Intranet) and fibre-optic data networks instead of traditional copper wire. The use of Internet protocol for voice transmission has reached a level of maturity that makes it both attractive and acceptable for the City to begin implementation. A phased approach will permit evaluation of the technology on a smaller scale and provide for more cost-effective long-run implementation.

1.0 Business Imperatives

The last upgrade of the main telephone system for City Hall was completed in 1998. A portion of the system has reached end-of-life status and maintenance services cannot be obtained due to a lack of available replacement equipment. The urgency is much the same at the Bob Prittie and Cameron Libraries and the Edmonds Community Centre. An electrical failure earlier this year resulted in failure of the telephone system at the Eileen

Dailly Pool and the temporary solution implemented there also requires replacement. In addition, capacity is severely constrained at the Shadbolt Centre for the Arts, the Burnaby Art Gallery and the Engineering Works Yard.

There is a compelling need to replace these systems to avoid potentially serious equipment failures and to address limiting capacity issues.

The telephone systems at a number of other City facilities are aging as well, and face the same difficulties and risks identified above. The Telecommunications Replacement Project provides for phased replacement of these systems. In addition, technological and market changes in telecommunications equipment and voice transport will eventually dictate the replacement of all remaining City telephone systems and equipment. This funding request anticipates the complete migration process.

2.0 Project Scope

It is expected that the project will be completed in five phases, the most urgent to begin immediately upon funding approval. The first implementation phase will replace (6) existing systems, upgrade the main City Hall system and install (1) new system.

Succeeding phases will be carried out over 4 to 5 years depending upon the state of equipment and cost-effectiveness of replacement.

3.0 Implementation Timetable

The preliminary implementation schedule is outlined below:

Phase	Description	Cost (Est)	Comp (Est)
I	Complete organizational needs analysis & strategic plan	$ 30,000	2005
II	• Upgrade City Hall telephone system to IP technology • Replace/provide telephone systems at City Works Yard, Bob Prittie Library, Cameron Library, Edmonds Recreation Centre, Eileen Dailly Pool, Shadbolt Centre for the Arts & Burnaby Art Gallery	$ 580,000	2006
III	Replace telephone systems at Bill Copeland/CG Brown, Bonsor Recreation Centre, Cameron Recreation Centre, Confederation Centre, Eastburn Community Centre, McGill Library, Kensington Complex, Kingsway Library, Fire Hall #1 and Parks Nursery	$ 185,000	2007
IV	Replace telephone system at Burnaby Village Museum and begin replacement of re-deployed telephone sets with IP sets	$ 100,000	2008
V	Complete telephone set replacement (if required)	$ 100,000	2009-2010
	Contingency	$ 50,000	
	Total Costs (estimated)	$1,045,000	

4.0 Business Case

The business case for this project exists primarily in the need to ensure continued operations at the City's many facilities.

The age of the majority of the telephone systems at these facilities indicates that replacement is a necessity and not simply a response to changing technology.

That said, the business case is strong for the phased replacement of most of these systems with VoIP-based telephone systems:

- The necessary communications networks and equipment are in place or pending installation.
- Much of the existing telephone equipment cannot be re-used through upgrading due to obsolescence and must therefore be replaced, most prudently with next-generation technology.
- Appropriate implementation of VoIP systems has become more cost-effective than replacement with traditional voice technology.
- With a phased implementation it will be possible to leverage some existing assets until replacement is indicated.
- Industry experience indicates that there are savings to be realized in system administration, for example the performance of "moves, adds and changes" for telephone users.

4.1 Costs/Risks

Capital

Total expenditures from Capital Reserves are anticipated at $ 950,000 over a period of four years or more, depending upon equipment condition and the speed of technology and market changes. A phased implementation with re-deployment of existing assets should benefit from falling equipment costs as the market expands.

Operating

Operating cost reductions from the following are anticipated:

- service agreement costs due to replacement of obsolete equipment
- vendor support costs due to ability to perform own system administration such as moves, adds, changes
- costs to repair or replace aging equipment
- trunking costs due to re-configuration

Risks

Although the City has some of its own data communication plant in place, much of the network relies on vendor-owned and -managed plant. There exists some exposure to operating cost increases for the use of these networks, although an expanding competitive marketplace mitigates somewhat against this risk.

It may be timely for the City to consider evaluating an expansion of the City-owned fibre-optic network to reduce reliance on vendor-supplied plant.

4.2 Benefits

Tangible

In addition to the anticipated reductions previously identified, the following immediate operating savings will be realized:

- $46,000 per year from the implementation of a system at the City Works Yard
- $42,000 per year in system maintenance costs

Intangible

Anticipated non-monetary benefits include:

- improved telecomm reliability (and reduced user frustration) for a number of remote sites
- enhanced customer service due to improvements in capacity and functionality
- enhanced call tracking, routing and reporting capabilities
- potential for enhanced emergency support capabilities by utilizing Works Yard telephone system for backup EOC voice communications
- enhanced user mobility including linking office to home over a private data network
- enhanced ability to monitor and manage troublesome telephone calls resulting in an increased sense of security for staff

5.0 Financing

This project is budgeted in the 5-Year Provisional Capital Program and sufficient capital reserves are available to fund the project.

6.0 Summary

Immediate replacement of six telephone systems and the upgrade of the main City Hall telephone system are urgently required to ensure continued business operations. Phased replacement based on prioritized need undertaken over a period of 4 to 5 years will enable a smooth, cost-effective transition to newer technology.

FOR Rick Earle
DIRECTOR FINANCE

RE:PJP

cc: ( ) Chief Information Officer