



Corporate

NO: R247

Report

COUNCIL DATE: December 3, 2001

REGULAR COUNCIL			
TO:	Mayor & Council	DATE:	November 23, 2001
FROM:	General Manager, Finance, Technology & HR	FILE:	0270/1 - 2002
SUBJECT:	Wang Mainframe Computer Retirement Strategy		

1.0 RECOMMENDATION

That the information be received.

2.0 INTENT

The intent of this report is to inform Council of the Wang Mainframe Computer Retirement Strategy.

3.0 BACKGROUND

The in-house development of custom Wang applications began in 1983. Since then some Wang applications have been migrated to our newer server platforms but some major applications remain including Taxation & Utilities, Payroll and Land Development. There are many intermediate and smaller applications still residing on the Wang.

The Wang was acquired in 1988 and, although it has been a reliable mainframe, it is already well past its expected use life, is obsolete and is wholly dependent on a diminishing supply of used parts to sustain it. The costs to maintain and support this hardware are high when compared with newer technology. The Wang system does not align with the IT architecture and standards of the City's newer distributed network servers. Our knowledge base to support Wang hardware and applications is eroding. A dwindling supply of highly experienced but expensive staff is needed to provide what should be low cost services.

Experienced managers who are currently relying on the Wang applications to conduct day-to-day business are nearing retirement. Their expertise is required to initiate a smooth transition of the Tax and Utility Billing and the Payroll Systems. In order to properly manage staff resources, it is important that these systems be replaced in the very near

future.

The Tax & Utility Billing application is the largest application running on the Wang mainframe. Apart from the risks of depending on obsolete hardware and diminishing support staff there are problems and severe limitations in this 18-year-old application.

The following are some of the more significant issues:

- Cannot support Council's direction to adopt user pay, such as drainage since the Wang cannot link to the necessary GIS information;
- Cannot support the expected increase in utility metering without adding \$150,000 per year for support staff to manually process the addition of 10,000 meters per year. The cumulative impact exceeds \$1.0 Million after 7 years;
- Cannot accommodate legislated changes to the Home Owner's Grant Act and the Electronic Transactions Act;
- Severely limited capacity for ad hoc reporting, expansion of data fields to accommodate growth, accessing historical data without manual searches, accommodating on-line customer queries and allowing pre-authorized payments;
- Cannot link with other systems like Amanda resulting in delayed updates for billing purposes;
- Ongoing dependence on manual solutions where programming changes are not possible.

A business case has been developed by IT, Engineering and Finance staff, which examined alternatives and proposals from vendors following an RFP process. A similar business case will now be developed for the Payroll system exploring similar alternatives.

Clearly, staying with an application dependent on the Wang is not a viable option. Simply porting the existing application to the current server environment eliminates few of the existing problems and avoids none of the staffing costs associated with utility metering. The recommended option, therefore, is to replace the existing application.

4.0 DISCUSSION

The retirement of the Wang hardware does not, in itself, represent a significant cost to the City. It has been reliable but is now well past its intended life cycle and is dependent on used parts and a shortage of experienced support staff. The reliability of the Wang has, to a degree, fostered a false sense of security. In reality, few of the key Wang applications have suitable backup or cost-effective contingency plans in the event of a major hardware failure or sudden lack of a critical replacement part. The potential for a catastrophic failure increases as the Wang progresses further past its designed use life.

The Wang is a growing risk to the City because of the key customized applications that still depend on the system. The Wang does not align with the IT architecture and standards of the City's newer distributed network environment. As a consequence, many of the applications designed for the Wang do not align or link well with newer applications. Some never will.

The timing and cost of Wang application replacements is really the key issue. The total annual on-going IT Capital Program is \$2.5 Million (including \$2.0 Million from the City's Equipment Replacement Statutory Reserve). The total cost to retire the Wang is between \$3.5 Million and \$4.0 Million. The Wang Retirement Strategy will have to take priority over the next two to three years, in order that staff properly manage the funding and staffing resource

requirements.

The following list represents the applications that still run on the Wang Mainframe. All of the applications will be evaluated individually to determine if and/or when they need to be replaced before the Wang is required.

Application Name	\$ 000's
Taxation (including Property control)	700
Utility Billing	300
Payroll	600 - 750
Land Dev (Engineering)	500 - 650
Fire Inspections	50 - 55
Tape Control	10 - 15
Parks Acquisitions	80 - 85
Corporate Records Management e.g.: Bylaw Cross Referencing, Corporate Documents, Corporate Records Archive, Corporate Reports Tracking & Correspondence Control	800 - 900
Legal Plan Log	50 - 55
Municipal Library / Holdings	10 - 15
Voters List / Registration	60 - 70
Traffic Signs Inventory	50 - 60
Utility Connections	30 - 35
Purchase Requisitions	60 - 70
Data Warehouse	200 - 240
Total	\$3,500-\$4,000

The Tax & Utility System is the first and largest Wang application to be replaced. A business case has been prepared indicating the need and benefits of replacing the application.

The most significant benefits include:

- Eliminating the risk associated with running a critical application on an aging, obsolete mainframe;
- Avoidance of \$150,000 per annum “cumulative” increases to implement utility metering using manual, staff dependent processing;

- Adaptive to current IT server architecture, current and future applications and legislative changes;
- Enables reduction of many manual processes allowing for steadily increasing data and inquiry volumes without staff increases;
- Provision for on-line customer queries, pre-authorized payments, improved historical data and reporting;
- Support for user pay approach to drainage services.

The Payroll System is the second largest Wang application to be replaced. The Business Case for this application should be completed in the first quarter of 2002.

5.0 CONCLUSION

The Wang mainframe has been a reliable performer but is obsolete and dependent on used parts and dwindling expertise to support it. Critical applications that depend on this platform are also obsolete and, increasingly, at risk. In addition, most existing applications cannot be easily adapted or improved to meet the needs of growth, legislative change and the elimination of outdated and manual processes.

While there are minimal costs associated with retiring the hardware and replacing the applications will cost between \$3.5 and \$4.0 million. A Wang Replacement Strategy was prepared indicating a 3-year timeframe for replacement of these applications.

A business case has been prepared for the replacement of the Tax & Utility System and will proceed in 2002. It is expected that replacement of the Payroll System will also proceed in 2002, once the business plan has been completed. Funding for both of these projects can be funded within the current 2002 and 2003 IT Capital Plan by re-priorizing current projects.

Staff will seek Council's approval for the awarding of specific contracts in accordance with the criteria set out in the current Purchasing Policy.

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