



**CITY OF KIRKLAND**  
Information Technology Department  
123 Fifth Avenue, Kirkland, WA 98033 425.587.3050  
www.ci.kirkland.wa.us

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## MEMORANDUM

**To:** Kurt Triplett, City Manager  
**From:** Brenda Cooper, Chief Information Officer  
**Date:** January 18<sup>th</sup>, 2011  
**Subject:** City Council Study Session

## RECOMMENDATION

City Council receives a briefing on three information technology topics: Council iPads, selected 2011 IT projects and challenges, and regional projects. The Council reviews this memo in advance and lets us know if there is anything else they would like to have the Information Technology Department cover.

Some of the topics are expected to come back up during the year for Council direction, and this briefing is designed to provide a foundation.

## BACKGROUND DISCUSSION

As a reminder, the IT department selects, implements, and maintains phones, computers and computer programs, geographical information systems, and manages the city's two television stations. We provide support for almost all public-facing departments from setting up and managing desktop computers and email accounts through helping staff work with and implement the major electronic systems that support business functions. We provide some direct support for citizens through the downtown wireless network.

### **Council iPad Research**

Moving the Council to iPads was proposed as part of the IT budget cut package this year. Early analysis suggested a savings of up to \$2,000 per machine based solely on the difference in hardware cost. It appears there may be some additional savings in software, and the hardware costs for the next version are not yet available, so we don't have a concrete savings amount right now. Before Council has to decide whether or not to select iPads, we will have a complete set of numbers to share.

We are neither the first nor the only public agency to contemplate this move. The City Council in [Hampton, Virginia has been using iPads](#) for a few months now. Other Councils are discussing the move both locally and in different states. Most of them will be using the iPads to transition off of paper packets, which Kirkland accomplished years ago. This means our savings are entirely based on the difference between the hardware and software costs.

Colin Blackman from the IT Service Desk is the technical lead on the project. So far, he has been testing the iPad for connectivity to our network, manageability, usability, and security. He has been trying to determine how it works in our environment and whether or not it could in some instances replace desktop computers and reduce our cost of delivering technology services to the end user. Particularly, we are evaluating whether or not the iPad will work for the City Council and what cost savings there are, if any.

Colin reports that many city functions are already working on the iPad and many others should be in place in the first half of this year. Here are some of the details of his exploration:

- **Mail and calendaring** work quite well on the iPad, with one exception: Exchange public folders are currently not available. This is a short-term concern as we will be migrating away from this technology within the next year.
- **Markup of the Council packet and other documents** is convenient with the use of a variety of low cost markup tools.
- **The Safari web browser** on the iPad is compatible with most sites on the Internet, with more sites becoming compatible every day.
- With the addition of a wireless keyboard, the iPad can be used quite well to **create or modify simple documents and spreadsheets**, although it is not a good replacement for a regular computer for staff who are power users.
- iPads are currently unable to **view video of City Council meetings**, but the next update from our multimedia web services vendor, Granicus, will bring Live and On-Demand video to the iPad. The same company is also developing an application specifically for iPad users which we hope to evaluate soon.

The Information Technology Department plans to demonstrate iPads to the City Council in the upcoming study session, and to begin letting them "test" the one that we have so that we can further develop our list of functions that the device needs to support. Note that we anticipate the Council Members will be offered the next version of the iPad, which is anticipated to be released early this year.

At this point, the department is likely to recommend that Council members seriously consider the iPad as a replacement. It would be acceptable to have some Council members choose iPads and others choose to replace their tablet computers with new tablet pcs or standard laptops.

## **Selected 2011 Projects and Challenges**

### Projects

Many IT projects are somewhat behind the scenes (such as network and server maintenance and upgrades), but others will impact the public. Two of the larger projects with public-facing components include the new permitting system and the expanded GIS data.

#### *Permit Systems Replacement*

This project has been underway for nearly a year and implementation is expected in March of 2011. It directly affects the Fire and Building, Public Works, Planning, and Finance departments and a large team of staff from those departments has been working on the implementation. The new system, Energov, was selected regionally and replaces a nearly twenty-five year old permitting system that is no longer actively supported by the current vendor.

The system will add some capabilities to our existing ones. These include implantation of an Interactive Voice Response (IVR) system for use in the field, planned integration with the MyBuildingPermit.com system to accept electronic permits and perform markup on electronic permits behind the scenes (reducing print costs for customers and the city), and the ability for businesses to renew business licenses online.

#### *GIS for the Annexation Area*

Many GIS Work Plan projects were placed on hold or given extended dates in order to make staff time and GIS program funds available to assure high-quality GIS data for the entire city including the expanded boundaries. While it will take years to bring all of our layers of data up to match the data we

have in the current city boundaries, certain basic information was required. This includes parcel, street network, surface water utility, zoning, and address data. Most of the initial annexation project data will be available in March or April.

### Challenges

The City has some challenges that relate to Information Technology. These are not new to the Council, but we hope to bring back detailed information and recommendations during this biennium. They are being included here in summary as reminders.

#### *Cost-Effective Storage of Electronic Data*

The amount of data that is stored electronically is growing quickly. The city invested in back-up to disk technology and additional storage systems last year, and in 2013 that equipment and software will be up for replacement. Estimates suggest that the expected growth between now and 2013 can be accommodated with our existing equipment (unless there is too large a volume of electronic records coming over from King County for annexation: this is as yet an unknown). There is money for replacement in our CIP budget in 2012 and 2013, but IT will need to carefully consider a number of options then in order to avoid an additional cost increase in data storage backup and recovery. Our total investment in shared storage, backup, and recovery hardware and software is over a million dollars that must be refreshed completely about once every five years. So far "cloud" storage options have been more expensive but hopefully they will be cheaper by 2013.

#### *Replacement Costs for Major Systems*

The City has had a reserve fund set aside for major systems replacements, but with the budget challenges of the last few years it has not been added to. The cost of the permit system basically caused that reserve to be drawn down near zero. One challenge that will have to be faced this biennium is that there is a major upgrade pending for the maintenance management system that is used for tracking inventory, scheduled maintenance, repairs, and work orders for Public Works street and utility crews. The cost of the upgrade is high enough that replacement options will also be considered in hopes that a different solution might have lower total costs of ownership. We do have \$250,000 set aside in the CIP in 2012, but we believe the project is underfunded, particularly if analysis show that replacement is a better long-term option. The problem is not only immediate: it is long-term. There is no funding currently set aside to replace the city's financial systems. Such a replacement could cost more than two million dollars. While this is not expected to be needed in this biennium, it surely will come up in the next five to ten years and it would be prudent to save for it.

A related issue is that the network and server infrastructure is replaced via the CIP and not through a sinking fund. We have reached a point where there are some years when the anticipated replacement costs are nearly equal to the total amount of CIP funding available to the city for investments in technology.

#### *Disaster Recovery*

We do not currently have a tested and funded disaster recovery plan. In the event of a major disaster, the city may lose access to systems and lose data. There is funding in the CIP after this biennium to work on this problem. There has been "future" money set aside for this for some time, and it is always re-purposed for more immediate needs. The good news on this front is that cloud-based services might provide disaster recovery capabilities, and if cloud-based data storage becomes cost-effective for our primary data storage, it may incidentally solve much of this problem.

## Regional Technology

We have two primary topics to highlight this study session: the eCityGov Alliance and the regional fiber project. Both are initiatives we have participated in for almost a decade.

### eCityGov Alliance

The eCityGov Alliance was formed in 2001 to provide Web-based services to constituents on a regional basis. We are one of ten “partner” cities in the eCityGov Alliance. The other cities are Bellevue, Renton, Issaquah, Bothell, Kenmore, Woodinville, Sammamish, Snoqualmie, and Mercer Island. There are also thirty-six other cities and counties who participate in one or more of the applications that eCityGov maintains. A complete list of members can be found on the [eCityGov.net members page](http://eCityGov.net/members).

Annual eCityGov Alliance membership fees are based on population. The 2011 fees will be about \$78,000 and in 2012 the fees will be raised based on the end-of-year 2010 population. We anticipate an increase of roughly \$45,000 dollars. As other cities have annexed, fees have been re-distributed based on the percentages of total population among the partner cities. On a dollar-by-dollar basis we feel that it would cost as much or more to provide the same services by ourselves. Of more importance, the regional cooperation and alignment of business practices has benefitted our customers and our staff. For example, the agreements that allow local cities to share inspectors became possible because of the work done by the many teams that work together on MyBuildingPermit.com.

The following applications are currently offered by the eCityGov Alliance:

- **MyBuildingPermit.com:** A regional online building permit system which is currently being expanded to offer more types of permits (including permits for planning and public works functions) and to accept plans electronically. In 2002, when this portal was launched, Kirkland took in 142 electronic permits worth \$6,931. In 2010, we took in 1,113 permits worth \$99,227. 7,388 total Kirkland permits have been taken in through MyBuildingPermit.com across its lifecycle for a total value of \$639,198. The following table shows the MyBuildingPermit.com transactions for all jurisdictions from 2002 to 2010:

		
	All Jurisdictions MBP Transaction \$	All Jurisdictions MBP Permit Volume
2002	\$ 32,749	606
2003	\$ 165,820	2,663
2004	\$ 235,414	3,638
2005	\$ 492,633	6,335
2006	\$ 646,355	7,704
2007	\$ 706,221	8,174
2008	\$ 701,119	7,801
2009	\$ 847,536	9,045
2010	\$ 957,366	10,718
<b>Total</b>	<b>\$ 4,785,213</b>	<b>56,684</b>
Contact: John Backman, eCityGov Alliance		

Additionally, 73,763 inspections have been scheduled via this portal across the region.

- [MyParksandRecreation.com](#): A regional parks and trails locator, and a regional search tool for recreation programs that links back to our web-based recreation registration system. While these statistics are not broken out by system, during the high summer months about 40,000 individual visits are made to MyParksandRecreation.com, and these visitors view about 140,000 pages.
- [NWMaps.net](#): The NWMaps regional GIS portal is being enhanced, as we speak, for the first time in about six years with an anticipated roll-out of a more customer-centered design planned for March, 2011. In spite of the fact that the site is pretty aged at the moment, there are about 6,000 individual visits to the site a month (these statistics are also not available by city).
- [NWProperty.net](#): This is a map-based economic development tool designed to help businesses choose where to locate in the region. Individual visits to NWProperty are running at about 5,000 a month (these statistics are also not available by city).
- [SharedProcurementPortal.com](#): This allows member cities to make small to medium sized purchases from a list of companies that have registered to show their interest. It replaces a roster that was provided by the City of Lynnwood, and provides City of Kirkland staff with less expensive purchasing options for smaller jobs than a complete RFP process.
- [GovJobsToday.com](#): This is a regional portal for government jobs which allows applicants to apply for multiple jobs at once with multiple cities, allows applicants to track the progress of their applications through our systems online, and allows city staff to process resumes in a paperless fashion. There is also a component of this offering which allows cities to share job descriptions and compensation and class information and saves city staff time when performing comparative studies across jurisdictions.
- [HSConnect Human Services Portal](#): Aggregates human services grant funding across 17 cities, making the process easier and less expensive for both applicant agencies and granting cities. This lowers overhead costs and assures that as much money as possible goes directly to agencies who provide vital human services.

During the upcoming study session, city staff plans to briefly demonstrate a few of the eCityGov applications that have not upgraded or changed since Council last looked at them a few years ago.

### **Regional Fiber Project**

The regional fiber project began in 1993 with a joint fiber project between the Lake Washington School District and the City of Kirkland. It almost immediately expanded to include the University of Washington and the City of Bellevue, and has since added Evergreen Hospital, the Bellevue School District, Bellevue College, City of Renton, the Renton School District, and City of Seattle. For the first five years or so, the project was managed through an ILA on a largely informal and opportunistic basis: if a chance to expand the network came up, members evaluated the opportunity or need and participated or passed based on need and budget. Even though there has been no formal governance in place, the consortium has operated well.

A consortium goal is to hook up regional public safety locations including dispatch centers and EOC's through consortium fiber. We have made progress toward that goal. In the last few years, the consortium has applied for and been awarded two Urban Areas Security Initiative (UASI) grants and is a finalist for another one. The first grant was for about \$630,000 and was used to expand the fiber backbone through Bellevue and to connect Bellevue and Renton via a path established through Newcastle. The second grant is for a similar amount of money, and will push the consortium fiber further around the lake to the south and west. We are finalists for a third grant.

Because the consortium is handling grants worth well over a million dollars at this point and has plans to request additional grants, a core group of staff from the member organizations (cities, schools, and hospitals) has been working together to re-design the consortium governance model to create a more formal structure that will work better with agencies who are providing funds for broadband development. The City of Kirkland has participated in this working group, and provided a \$5,000 contribution to paying for a consultant to help us research options. In addition, Oskar Rey from the City Attorney's Office has been providing legal advice to the group.

We anticipate that a new ILA and related information about the new form of the consortium will be brought back to Council sometime in the first half of 2011. At this point, we do not anticipate the need to staff the consortium or that there will be significant fees associated with being members of the new organization, but there will be some ongoing costs anticipated of a minor nature.

The work of the fiber consortium is of value to the city and the region. The City of Kirkland uses the strands that it owns to connect most of our city buildings and to provide backhaul for the popular downtown wireless system. Additionally, some of the consortium fiber going through Kirkland will be used to help the City build its intelligent transportation system. As a region, we have built over 35 miles of fiber optic cable, creating strategic connection points along the way. Our partners use the fiber network to:

- Connect schools and universities to enhance learning
- Connect hospitals, medical facilities and clinics to improve health care
- Connect government facilities for public safety, transportation and other needs
- Provide an open access network to serve the public with wireless and broadband access

Now that there are major connection points in Kirkland, Bellevue and Renton, the consortium's intent over the next five years is to:

- Create a vibrant and competitive region by providing connectivity to meet the needs of our community institutions – hospitals, schools, city halls
- Expand the use of our fiber network to support new applications and needs
- Build resiliency in our network and for our partners by adding redundancy and connecting with other regional networks
- Ensure a sustainable organizational, governance and management structure to make sound, long-term decisions benefiting our customers

### **Concluding Remarks**

Hopefully this information has been useful to Council. About half of the study session is anticipated to be the iPad demonstration and related questions. We plan to show some of the eCityGov projects and will also have time to discuss any other IT issues that Council identified they are interested in in advance.