



**CITY OF KIRKLAND**  
**Information Technology Department**  
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**MEMORANDUM**

**To:** David Ramsay, City Manager  
**From:** Brenda Cooper, Chief Information Officer  
**Date:** 12/23/2009  
**Subject:** Technology Study Session

About once a year, we get an opportunity to talk with the City Council about technology. This year, we hope to focus on specific topics that generally all revolve around citizen-facing technology. These include a brush-up on where we are with our regional efforts such as the eCityGov Alliance, some citizen notes about our popular downtown wireless, a spin through the statistics on our website and television, a discussion of the new Currently Kirkland format, a trip through the interactive internet (blogs, mashups, and Web 2.0). We'll end with a brief look at the new technologies coming our way like cloud computing. Attending presenters will include me, Rob Mullin, Xiaoning Jiang, Janice Perry, and Donna Gaw. We have attached a television channel lineup document that Janice will talk to during her part.

In the meantime, like last year, this staff memo addresses other technology issues which may be of interest to the Council, but which we don't have time to cover individually in our presentation.

**IT BUDGET**

We have come in on-budget every year. Since it's hard to see most of the IT expenditures in any one location, the table below should help you visualize your current level of investment in Information Technology.

<i>Anticipated IT Budget for 2006-2010</i>							
	<i>2008 Budget</i>	<i>2008 Actuals</i>	<i>2009 Budget</i>	<i>2010 budget</i>	<i>2011 Estimated budget*</i>	<i>2012 Estimated budget</i>	<i>Totals</i>
Capital	\$1,796,400	\$1,574,195	\$1,144,200	\$1,231,400	\$925,600	\$1,103,400	\$5,978,795
Operating	\$4,707,363	\$4,202,710	\$4,512,965	\$3,979,296	\$4,178,261	\$4,387,174	\$21,260,406
<b>Totals</b>	<b>\$6,503,763</b>	<b>\$5,776,905</b>	<b>\$5,657,165</b>	<b>\$5,210,696</b>	<b>\$5,103,861</b>	<b>\$5,490,574</b>	<b>\$27,239,201</b>

\*Does not include annexation costs or estimates. 2011 and 2012 operating budgets are estimated at previous year plus 5% for the purpose of keeping this simple.

## IT STRATEGIC PLAN SUMMARY RECOMMENDATIONS AND STATUS

In 2006, we created an IT Strategic Plan. Here is our status on the projects which were identified as the most important in that plan and which we also reported on to you in 2008.

APPLICATIONS		
<p><b>Implement an Electronic Document Management System (EDMS)</b></p>	<p><i>Continue the procurement process and prepare for implementation. Execute a Discovery/Planning project to review and document key use cases associated with that function across the enterprise. Encourage a review of existing processes, and potential re-engineering based on the outcome. Deliver prioritized list of use cases for implementation - the document management roadmap - with target implementation dates.</i></p>	<p><i>We have selected, purchased, and implemented HP's TRIM records management software. All new city contracts are now managed in TRIM. All Ordinances and Resolutions are now in the system and available over the internet to the public. We have over 110 thousand records so far. Almost 700 are contracts. This is only a portion of the work needed to get all of our records into the system.</i></p>
<p><b>Develop a Virtual Kirkland GeoSpatial Model</b></p>	<p><i>Create a virtual model of the city, or parts of the city, using digital terrain models, building footprints, tree inventory, building textures, window treatments, sidewalks, and other layers to demonstrate how a development (e.g., a new commercial or office building) or policy (e.g., Zoning Code, Comprehensive Plan, etc.) will visually impact the city. This may also incorporate the ability to show changes over time.</i></p>	<p><i>This is not complete. It was not our highest priority to fund, and many of the commercial GIS applications are beginning to fill this need, so it may not need to be done by the City at all.</i></p> <p><i>We have used 3D GIS for specific projects on request, and remain able to do so when warranted.</i></p>
<p><b>Analyze recruitment process and implement an online application solution</b></p>	<p><i>Improve and automate the process for attracting and hiring quality staff, including leveraging our regional relationships to provide a regional applicant portal. This project will be pursued jointly with regional partners and executed in two phases. Phase I will analyze areas for improvement and how technology can assist with process automation. Phase II will implement an Application Online solution based on the results of Phase I.</i></p>	<p><i>We have implemented an applicant online system called GovJobsToday.com as part of our eCityGov.net portfolio. We began to use it for recruitments in 2009.</i></p>

<p><b>Streamline permit process workflow</b></p>	<p><i>Perform detailed review of all permitting processes, workflow, and roles and responsibilities. This work will prepare the City to scale its permitting function to accommodate new demand post-annexation. In addition, the permit process workflow will provide guidance to the EDMS project to ensure that the system is aligned to effectively support permitting.</i></p>	<p><i>The Development Services Team worked with a consultant and made progress in this area. Some of the things that they learned have been incorporated into the requirements for the permit system replacement.</i></p>
<p><b>Receivables</b></p>	<p><i>Document the Accounts Receivable process for each department that currently deals with receivables. Define requirements for an Accounts Receivable system. Implement a centralized AR system (potentially Springbrook) with refined AR processes. Provide automated posting to IFAS.</i></p>	<p><i>The Accounts Receivable process for each department has been documented and there has been some progress in defining the system requirements. The preferred AR system is IFAS. Once the IFAS upgrade is completed in Spring 2010, work will begin on setting up and testing the AR System in IFAS.</i></p>
<p><b>e-Gov</b></p>	<p><i>NWMaps is an online GIS mapping resource for the public to provide regional GIS data from multiple entities into a seamless whole for specific data layers.</i></p> <p><i>NWProperty.net is a regional property locator service. The eCityGov Alliance Operations and Executive Boards manage the work plan for the system which facilitates decision-making for businesses looking to relocate to or within Kirkland and other eCityGov Alliance members.</i></p> <p><i>MyParksandRecreation.com is a single online source for regional information about parks and recreation opportunities. The website allows citizens to search and find availability of classes across the region, and connect to City sites to register for recreation classes. Particular work this year is to integrate parks, facilities, and trails information for the region with a search functionality and GIS component.</i></p>	<p><i>Work completed in the last few years includes implementing interactive online inspection scheduling in MyBuildingPermit.com, addition of trails data to MyParksandRecreation.com, creation and implementation of a regional small works roster for purchasing, and implementation of GovJobsToday.</i></p> <p><i>We are finalizing requirements for an upgrade to NWMaps.net. We are also working on a project to accept permit applications electronically for those permits that need plans (we already accept electronic application for over the counter permits).</i></p>

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**Mobilize Remote Workforce**

*Develop a city-wide mobile strategy. For example, to what extent do we want to provide mobile systems, and how will we maintain connectivity? There are currently funded in-flight mobility projects to provide GIS connectivity in the field and for field inspectors in Public Works and Building. The City already provides mobility solutions for Police and Fire (Fire's are managed by the City of Bellevue, who also dispatches Fire). This project is to define the strategy for current, funded, and unfunded wireless mobility needs. Unfunded mobility projects include providing photographic and complaints data to code enforcement officers via mobile technology, Mobile fire inspections and field time entry for Public Works & Parks crews.*

*The strategy is completed and we have rolled out mobility projects for inspectors and for the GIS field staff.*

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## INFRASTRUCTURE

<p><b>Implement a storage area network</b></p>	<p><i>Install a Storage Area Network (SAN) attached to key servers based on application storage requirements. The system will give the City a flexible central pool of data storage space that can be allocated to applications as needed. It will position the City to spend less money in the future as the need for new data storage grows.</i></p>	<p><i>This is completed.</i></p>
<p><b>Perform server virtualization</b></p>	<p><i>Perform server virtualization to reduce the physical footprint of the servers in use (reducing electricity and cooling load), and allow the City to maintain a comprehensive testing environment, potentially reducing the number of outages due to change issues.</i></p>	<p><i>This is completed.</i></p>
<p><b>Improve network redundancy</b></p>	<p><i>Consider entering into an agreement with the City of Bellevue to use the fiber connection between the two cities and share connections to King County as a back-up link in the event of an outage. The City of Kirkland recently established multiple pairs of fiber cable between Kirkland City Hall and the City of Bellevue's new data center. The City should also evaluate the redundancy of its phone system.</i></p>	<p><i>We have the fiber connected. To some extent, funding for increased IT resiliency and disaster recovery has been traded off for other things (for example, when we needed to move much of our infrastructure to Bellevue, we repurposed money that had been tagged for disaster recovery).</i></p>
<p><b>Implement automated system monitoring</b></p>	<p><i>Select and implement automated system monitoring tools on critical City systems. There are a number of commercially available tools that can be easily implemented, would significantly reduce the time required to perform the daily checklist, and provide a real time view into the health of the infrastructure. The City IT department's current process uses a lengthy daily checklist to verify that infrastructure services are working correctly and to identify potential issues. It is a time consuming process and can benefit from automation.</i></p>	<p><i>This is completed.</i></p>

<p><b>Address disaster recovery needs</b></p>	<p><i>Implement back-up and recovery hardware infrastructure and redundancy of various City systems. Also utilize neighboring City of Bellevue data center to store backup systems and Bellevue's connection to other agency networks to ensure connectivity during emergencies.</i></p>	<p><i>We ended up having to use the Bellevue site as a primary data center instead of setting it for disaster recovery. We do have some funding planned for 2011, 2013, and 2014 in 2009-2015 CIP and are hopeful that funding will remain available.</i></p>
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**ORGANIZATION**

<p><b>Continue approach to regionalization and establish a strategic, rational process for regional project planning and selection</b></p>	<p><i>Work with regional partners to develop a set of criteria to select projects for consideration. Convene an annual coordination meeting between key regional representatives to share annual programs, priorities, and identify synergies. Regional decision-makers should involve appropriate representation in project selection discussions. These should be individuals that can speak to implementation challenges. Continue current approach to regional project evaluation, which is to move forward if the initiative makes sense for customers, not necessarily because it is cheaper, faster, better, or easier. At times, internal, non-strategic drivers force the need to complete regional initiatives.</i></p>	<p><i>This work is done through the eCityGov Alliance.</i></p>
<p><b>Introduce the role of Public Information Officer (PIO)</b></p>	<p><i>Add a PIO reporting to the City Manager's Office (CMO). Tools and technology to support the PIO should reside in IT. The PIO will help the City communicate with the public more effectively.</i></p>	<p><i>The City Manager's Office hired a Communications Manager to fill this role.</i></p>
<p><b>Introduce the role of Application Team Manager</b></p>	<p><i>Add a full-time application team manager with responsibilities and high demand for applications staff time for workload leveling, prioritization, issue escalation and project performance monitoring. The application team manager will be able to relieve the project management workload which will exceed existing staff capacity over the duration of the plan.</i></p>	<p><i>This position is built into our annexation expectations.</i></p>

<p><b>Implement a project governance body or IT Project Management Organization (PMO)</b></p>	<p><i>Implement a virtual project management organization to develop project management best practices and delivery standards. A virtual project management organization (PMO) is one where critical project delivery roles are primarily distributed amongst existing staff resources. The IT PMO will provide monitoring and review of projects for quality and also provide project portfolio management and prioritization. It is recommended that the proposed Application Team Manager position chair the PMO and develop an implementation plan. The implementation plan should take a phased approach that defines the PMO components (i.e. standards and best practices) and defines plans for training and resource assignment. It is further recommended that the PMO functions be piloted on major projects and focus on the most challenging aspects of project delivery as currently experienced by City of Kirkland IT, which are scheduling and resource leveling.</i></p>	<p><i>It will be easier to do this once we have the applications manager.</i></p>
<p><b>Continue to add staff as appropriate and as resources allow</b></p>	<p><i>Identify and address other staffing gaps such as those currently filled by one-time funded staff and those posed by future growth plans. The City should request ongoing City funding for its four one-time funded staff who are not currently built into the City's base budget and whose workloads are not anticipated to diminish. Other current staffing needs have been identified as a GIS specialist (see GIS Strategic Plan), network specialist, and an intern. As the City grows – in physical size through annexation and in associated staffing and infrastructure – the IT department should continue to assess its customers' growing needs and add staff as appropriate to help support the City's ability to run efficiently.</i></p>	<p><i>We did move some of our temporary staff to ongoing positions by shifting CIP funding to operating funding, but we have also now lost staff to the budget reductions, including part of one of the positions we shifted.</i></p>

These are the highest priority tasks from the IT Strategic Plan, which had over 104 projects, and which we've continued to add to. On our typical operating calendar, we would be working on a new Strategic Plan in 2010, but at this point we recommend that we continue to complete these tasks and the new ones that we already know of (such as replacing the Permit System) and do another strategic plan process in 2012 after the bulk of the annexation is complete from an IT point of view. We will request funding for that planning process in the 2011/2012 budget process.

### **MAJOR PROJECTS FOR 2010 AND 2011**

We haven't completely finished getting our work plan through the IT Steering team and blessed for these two years because we were waiting for the outcome of the annexation vote, but the following projects and concerns will be the primary elements in our detailed plan:

- Replace the aging permit management system. By the end of 2010, we'd like to be almost done. This will be our single largest project.
- Make significant progress on getting the base layers in the Annexation area completed.
- Re-design the city website with a new graphic look and feel, and clean up the content.
- Begin using Web 2.0 tools in production to communicate with the community.
- Release the RFP to get a NWMaps product that allows citizens to easily access the city's GIS data as appropriate.
- Perform a complete upgrade of our telephone system server hardware (this is maintenance – not replacement, but is still a large job).
- Finish implementation of the web-based version of our finance system front end, which includes significant business process redesign.
- Further enhance the city's intranet to support more communication via web 2.0 technologies for internal needs.
- Replace our almost twelve-year-old help desk system and implement best practices to help us better document, maintain, and support our increasingly-complex systems.
- Replace the core switches in the city network. This is a big, risky project that will occupy the last half of the year.

Please feel free to ask me any questions you may have.



continued

**Currently Kirkland \* \*\***

*Sun./Mon./Wed.- Sat. 6:30am & 6:30pm*  
An award winning monthly news and information program aired on the KGOV and KLIFE Channels.

**Spotlight on Environmental Health**

*Mon./Sat. 9am*  
Produced by King County Public Health's Environmental Health Division to address issues related to healthy living and the environment. Division aims to identify and sustain healthy environmental conditions that protect and promote people's health.

**Fire Safety \* \*\***

*Mon./Thurs. 9:30pm*  
From fire drills to garage appliance safety, youth fire setting to life saving fire sprinklers. Guaranteed to be the hottest topic on your set!

**History\* \*\***

*Sun./Wed./Fri. 8pm*  
Learn about Kirkland's history and the east side of Lake Washington.

**Kirkland in Focus\* \*\***

*Mon./Thurs. 8pm*  
Features initiatives, a look at department or specific information about programs undertaken by the City such as Traffic Calming, City Parks and Emergency Preparedness to name a few.

**Inside Transportation**

*Wed./Fri. 7am; Sun. 8pm*  
Inside Transportation is designed to help you learn how the King County Department of Transportation serves the public and how to take advantage of

the transportation options available to you. It is a presentation of the King County Department of Transportation Public Affairs Unit.

**Lecture Series \* \*\***

*Tues./Sat. 3pm; Wed./Fri. 8pm*  
Presentations on a range of topics including global Warming, affordable housing, earthquake retrofits for the homeowner and much more.

**Legislative Update**

*Sun./Mon./Wed.- Fri. 7pm*  
Stay informed about what's happening in our state capital! Legislative Update airs monthly throughout our state's legislative session, providing residents with a summary of legislation being considered. Updates are provided by our area's House Representatives and Senators.

**Pentagon Channel**

*Wed./Sun. 12pm; Tues. 6pm*  
The Pentagon Channel broadcasts military news and information for the 2.6 million members of the U.S. Armed Forces through programming including: Department of Defense news briefings, military news, interviews with top Defense officials and short stories about the work of our military.

**Perils for Pedestrians**

*Thurs. 7am; Mon. 1pm*  
Learn about pedestrian safety and ways to improve it. Our host visits different places throughout the United States, focusing on steps that are being taken to enhance pedestrian safety.

**Project Impact**

*Mon./Sat. 10am; Tues. 9am*  
Project Impact features local, regional and national experts talking about disaster and emergency management issues relevant to our area. Topics include information on hazards and disasters, emergency preparedness and response, homeland security and other topics.

**Public Safety**

*Sun./Tues./Wed./Fri. 5am; Mon/Thurs. 11pm; Mon. 11am*  
Programs, information and tips to keep you up to date and families safe, including such topics as new laws around children car seats, driving tips, identify theft etc.

**Sound Transit Board Meetings**

*Wed./Fri. 8am; Sun. 9pm*  
Tune in to the latest from the Sound Transit Board.

**Sound Transit in Motion**

*Wed./Fri. 8am; Sun. 8:30pm*  
This video magazine contains feature stories, updates and other information about Sound Transit services, construction and plans for expansion of the regional mass transit system.

**Special Features \***

*Thurs. 3pm; Tues./Sat. 12am; Mon./Wed./Fri./ Sun. 5pm*  
An à la carte selection of entertainment, event, and informational programs.

**White House Chronicle**

*Tues./Sat. 2pm, Fri. 11:30pm*  
A weekly news and public affairs program. It hosts are nationally syndicated columnist and author Llewellyn King and veteran journalist Linda Gasparello.

**Kirkland TV Tune in, Log-on**  
**123 Fifth Avenue, Kirkland, WA 98033**  
**425-587-3207**  
**Email: [KirklandTV@ci.kirkland.wa.us](mailto:KirklandTV@ci.kirkland.wa.us)**  
**Comcast:**  
**KGOV - Channel 21 / KLIFE Channel 75**  
**Verizon:**  
**KGOV - Channel 31 / KLIFE Channel 32**  
**[www.ci.kirkland.wa.us/tv](http://www.ci.kirkland.wa.us/tv)**





Check our website for more details on days and times:

[http://www.ci.kirkland.wa.us/depart/TV/Kirkland\\_TV\\_Programs.htm](http://www.ci.kirkland.wa.us/depart/TV/Kirkland_TV_Programs.htm)

\*Denotes streamed programs

\*\* Denotes in-house production

**Arts & Artist**

*Mon./Thurs./Sat. 6am; Sun./Wed./Fri. 1am & 1pm*  
 Programs made available through the National gallery of Art to foster awareness of the visual arts. View such programs as “The landscapes of Frederick Edwin Church”, “Adventures in Art”, “Picasso: The Saltimbanques”, etc.

**Currently Kirkland \* \*\***

*Daily 7:30am/12pm/7:30pm*  
 An award winning monthly news and information program airs on the K-Life and KGOV Channels. Get a sense of Kirkland life and learn about City programs, news, developments and events. Be aware of breaking news items such as traffic revisions and public safety updates.

**Education News Parents Can Use**

*Sun./Mon./Wed./Fri. 8am; Tues./Thurs./Sat. 10 am*  
 A television series about ways to ensure children’s educational success.

**Fire Safety \* \*\***

*Sun./Mon./Wed./Fri. 9 pm*  
 From fire drills to garage appliance safety, youth fire setting to life saving fire sprinklers. Guaranteed to be the hottest topic on your set!

**Give Your Wall Some Soul**

*Mon./Wed. 1am; Mon./Fri. 1pm*  
 Enjoy Shannon Grissom’s award-winning television show “Give Your Walls Some Soul”. Let Shannon share with you her tips and techniques for painting with soul!

**Health and Safety 50+\***

*Sun./Mon./Wed./Fri. 9am; Tues./Thurs./Sat. 4 pm*  
 A wealth of information for Baby Boomers and Beyond. Learn about cyber cons, emergency readiness for older adults or how to be a drug smart consumer.

**Health Issues**

*Sun./Tues./Wed./Fri. 9am; Tues./Thurs./Sat. 4 pm*  
 A variety of topics including physical health, healing and recovery from addiction and the faces of influenza.

**It’s Your City**

*Sun./Mon./Wed./Fri. 7pm*  
 Monthly magazine show produced by the City of Bellevue giving you a look at what’s happening in and around the City of Bellevue.

**Jazzercise’s “Jazz Cardio Strength Stretch”**

*Tues./Fri. 6am; Wed./Sun. 7am; Tues. 2pm; Wed./Sun., 8:30pm*  
 An exciting 30-minute workout program produced specifically for local access television. This non-commercial program featuring Judi Sheppard Missett, Shanna Missett Nelson and other Jazzercise Instructors incorporates cardio, strength, and stretch routines.

**Public Safety**

*Sun./Wed./Fri. 11pm; Mon./Thurs./Sat. 11am*  
 Programs, information and tips to keep you up to date and families safe; programs include such topics as new laws around children’s car seats, driving tips, identify theft etc.

**Sam the Cooking Guy**

*Wed./Thurs./Sat. 2am; Mon./Wed./Fri./Sun. 2:30pm; Sat. 11:30pm*  
 A message from Sam: “Sam the Cooking Guy is about an everyday guy - me (ok, so I have 8 Emmys) who has found a way to make cooking casually understandable. With no fancy equipment and by speaking English instead of ‘chef-speak,’ I’m sort of the everyman of television cooking. The show is shot right in my house – and I cook with my kids, dogs and neighbors occasionally around – just like we all do... Food that’s ‘big in taste and small in effort’.

**Senior Council Spotlight \* \*\***

*Tues./Thurs./Sat. 9am; Sun./Mon./Wed./Fri. 4pm*  
 The Kirkland Senior Council produces a variety of educational award winning TV/Video programs on topics ranging from aging in place to influencing your elected officials. Kirkland’s Senior Council strives to ensure that Kirkland remains a safe, vibrant community for residents aged 50 and older.

**Special Features**

*Tues./Thurs./Sat. 8pm*  
 An à la carte selection of entertainment, event, and informational programs.

**Vintage Vehicle Show**

*Wed. 1:30pm; Mon./Tues./Thurs./Sat. 5pm; Fri. 8:30pm*  
 This award winning show brings you the best television coverage of all aspects of the classic, stock, custom and hot rod car hobby. Over the past thirteen years the Vintage Vehicle Show has taken viewers to America’s best car shows, museums, private collections and restoration facilities.

**We’ve Got Issues \* \*\***

*Sun./Mon./Wed./Fri./Sat. 10pm; Tues./Thurs. 12am; Wed. 5pm*  
 This award winning program produced by the Kirkland Youth Council focuses on issues and topics important to today’s youth and our community which values their perspective.

**Words that Cook! Parenting with Children’s Books**

*Sun./Mon./Wed./Fri. 10am; Tues./Thurs./Sat. 8am*  
 An award winning half-hour family literacy program co-hosted by Monty Haas and Martine Bernard. The series celebrates the joy of reading, the art of writing, the wonder of storytelling and the magic of wordplay through a combination of interviews and live action spiced up with animated fun.



Check our website for more details on days and times:

[http://www.ci.kirkland.wa.us/depart/TV/Kirkland\\_TV\\_Programs.htm](http://www.ci.kirkland.wa.us/depart/TV/Kirkland_TV_Programs.htm)

\*Denotes streamed programs

\*\* Denotes in-house production

**American Democracy Television**

*Fri. 12pm; Sat. 7pm*  
 The American Democracy Television network provides video programs to engage citizens with our representative government. Viewers will learn: How representative democracy works at the local, state and national level; that compromise and disagreement are an important part of our system of democracy; and how their ideas and special interests are represented.

**Kirkland City Council Meetings\* \*\***

*Sun./Wed./Fri. 12pm; Thurs. 8am; Sat. 7pm*  
 For special sessions check our website. Live broadcasts of City Council meetings are the first and third Tuesday of each month beginning with a Study Session at 6:00 p.m. continuing into the regular meeting.