If we make innovation a part of the way we live and work, it will change the way we live and work.

Dean Kamen
## Executive & Commission Update

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Overview:

The Information Technology Extreme Makeover is nearly complete. The investment has been made, the systems and solutions have been built, deployed, and trained—the challenge before us is now to use IT.

The City’s investment in updated technology was strategically planned and factored in resulting obsolescence. The 201 Market Data Center and mainframe systems served us well, however they have been replaced with new technology and are being fully decommissioned this spring. IT has been very intentional and this benefits the City by providing a 40% savings that reduced cost by about a million dollars and it provides a foundation for transformation, cost reduction, and innovation for other departments.

In a few short years we have made wise, significant investments in new computing and communication architectures. We have refreshed nearly every enterprise solution we use from telephony, customer service, to financials. We have changed dispatch, added mobile office, adopted portal solutions, embarked on enterprise document workflow management, embraced Wi-Fi, mobile broadband, and Automatic Vehicle Locator (AVL). We have gone Software as a Service (SAAS), cloud, and virtual. We have continued developing e-Everything, smart-phone solutions, alternative methods of service delivery and communication leveraging social media, performance dashboards, and a new web presence. We are continuing our development of crowdsourcing, expanded transparency, business intelligence, performance analytics, and are considering redeveloping how the City performs customer service. We are indeed in innovation and business process overload.

The IT Department has and will continue to ‘Leverage Technology to Affect Change.’
Overview Continued

The Extreme Makeover of IT infrastructure and framework is nearly complete. Now is the time to ensure that those investments in technology are engaged, leveraged and utilized to maximize City resources to get greater benefits.

The City faces many transformational challenges. It is important to realize opportunities for staff to work smarter to implement processes that accomplish more with less. The City already has technology tools in place that can be leveraged to accomplish these goals. The time is now to use those tools to save time and money without sacrificing our high service standards. The time is now for departments to take action, engage, and utilize the transformational technology solutions. The time is now for all departments to leverage technology to affect transformation change.

Nothing will be more transformational than our next steps with Cloud, Crowd, and Customer Service 311. These three solutions, when engaged, integrated, and utilized will enable us to be quicker and better. They will help us to bust out of old routines and in so doing will lead to even more customer satisfaction and innovation.

Transformational Technology Highlights and Opportunities:

Cayenta Utilities Water System

In 2011, the Grand Rapids Water System went live with its new Customer Information System, Cayenta Utilities (CU) for customer billing and service order management. CU replaces a decades old Mainframe system that was often cumbersome to use and also restrictive in the data that could be recorded. CU is much easier and user friendly than the old system. CU also has the potential to integrate with other operational systems to enhance reporting and management of assets.

Currently, there is ongoing configuration for Water System cross connection device management and for service inspection work order processing using CU. These are the last items to be developed as part of the original contract. Cayenta and City staff continue to work on the development in these areas and to correct glitches that arise.

In the near future, Water staff will begin a new phase of CU during which interfaces with Cityworks work order processing and the City’s GIS system will be developed.
Transformational Technology Highlights and Opportunities - continued:

Financial Systems

The Extreme Makeover of our financial systems has been a huge undertaking for the Comptrollers Department. Over the past five years, they have implemented three Cogsdale applications: the Budgeting Enterprise Reporting application, Web-Procure a software as a service (SAAS) application that is hosted on Cogsdale servers, and the beta version of Cogsdale Financial Management that is a highly customized adaptation of Microsoft Dynamics GP referred to within the City as GP-FM. In December 2011, GP-FM went live and is being used throughout the City. It replaces the FAMIS Mainframe system that was limited in capability and very costly to maintain.

A significant benefit of GP-FM is that the databases are hosted on Microsoft SQL Servers and therefore the City is able to fully utilize and benefit from all of the extensive SQL Server Reporting Services (SSRS) capabilities.

SQL Server Reporting Services (SSRS)

SSRS can deliver the real time data and information needed to measure results and make educated decisions. This powerful tool can put the important information that you need to monitor progress and detect problems right at your finger tips or in a dashboard right before your eyes.

With SSRS, we can create interactive, tabular, graphical, or free-form reports from the relational, multidimensional, or XML-based data sources from most of our applications, allowing you to compare and contrast data between systems. Reports can be published, scheduled, or accessed on-demand. SSRS also enables us to create ad hoc reports based on predefined models, and to interactively explore data within the model. Users can select from a variety of viewing formats, export reports to other applications, and subscribe to published reports. Reports can be viewed from within an application, website, or a SharePoint site.
Transformational Technology Highlights and Opportunities - continued:

**Geographic Information Systems (GIS)**

Prompted by a comprehensive analysis of the City’s existing GIS program from Infogeographics, Computer Products and Resources (CPR) began the largest upgrade to the City’s GIS infrastructure since the City began using the tool more than 10 years ago. This includes aligning the database tier to City’s Microsoft technology standard (MS SQL Server 2008) and eliminating the need for erroneous and costly process (ArcSDE) by adopting a new highly integrated spatial data storage format.

Constraints on desktop license changes and increased usage patterns prompted CPR to develop the GIS License tracker. By dynamically sampling usage, GIS License tracker gives users a view into current products available and soon will provide departments with hourly statistics. These statistics provide a greater level of openness and transparency in the system and will allow departments to define needs for software and training investment.

With the upgrade efforts made in 2011, the GIS infrastructure can more readily expand and adapt to increased web data sharing needs without the need for costly redesign. After the pending upgrade of the City’s Asset Management systems (CityWorks), GIS program improvements in 2012 will shift to web application configurations and tighter integration with the City’s emerging Automatic Vehicle Locator technologies.

Finally, with all these changes GIS still remains primarily a tool for modeling and visualizing real world systems through spatial data. To ensure continued growth and smart investment the City’s GIS Program has adopted the Urban and Regional Information Systems Associate’s GIS Capability Maturity Model. This model provides a method of self-assessment to ensure the City’s GIS Program is supporting line of business strategies and helping employees develop effective, innovative learning models.
Transformational Technology Highlights and Opportunities - continued:

**MoveGR**

MoveGR is the second phase of a Regional Transportation Portal and Road Closure Map. Sponsored by the Lighting, Signals, and Signs department and MDOT, this website built on the City's new internet technology (MS SharePoint) will provide a single place of reference for business, citizens and visitors of greater Grand Rapids to get up to the minute closure information and future planned projects. Users of the tool can define areas of interest and receive information as needed.

This project also demonstrates the integration of the City's internet and intranet sites with the City's new GIS infrastructure. By spatially enabling enterprise content management departments now have a new way to produce on demand maps and visualization.

**Cityworks**

Cityworks is an application that has served the City, specifically the Streets and Sanitation departments well for the past several years. CityWorks tracks citizen services requests, operations work order management, and projects. CityWorks integrates directly with the City's GIS which provides spatial views of past, current and future infrastructure maintenance.

Recently the IT department entered into a partnership with Power Engineers to expand the use of Cityworks for additional departments. The new partnership and upgrade also allows departments to engage the software for implementing their Lean A3 processes. The expansion of the past year will maximize and ultimately increase the City’s return on investment.

In 2012, City Works will continue to grow and integrate with other software in exciting ways, including expansion to StoreRoom inventory management and Automatic Vehicle Locator web maps.
Transformational Technology Highlights and Opportunities - continued:

**BS&A**

BS&A software provides property assessment administration software systems for local governments in Michigan named Equalizer. Equalizer was upgraded to a more mainstream technology and database system. This upgrade has allowed other systems like Accela Automation to integrate and share data with each other.

The City also uses BS&A modules for tax and miscellaneous receivables. BS&A has made a corporate decision to cease development of a Business License module. This has put the City Clerk Department on a path to research and implement a new Business License system.

**eCommerce**

The Treasurer Department, in partnership with Chase Bank, implemented a convenient, low cost or no cost online payment method for various City services including water and sewage services, parking tickets, property taxes, refuse carts, and inspection and permit fees. This is an example of providing an easy and convenient solution for customers that also saves city staff time and redundant data entry.

In the coming years, we will continue to evaluate and add to the services payable online because this is convenient for our customers and cost effective for the City.
Transformational Technology Highlights and Opportunities - continued:

**Microsoft InfoPath Forms and Workflows**

Information from and about City residents is vital, information from City businesses is critical, information from City departments is crucial, and information generated from City employees is important. However, this information is sometimes overwhelmingly difficult and complicated to manage and access. The City has implemented technology solutions that can minimize the challenge so that we can cost effectively streamline and maximize how we manage and access information and there is no better time than now to utilize these solutions.

In an effort to improve the efficiency of key processes in the City, there has been an increased interest in the utilization of electronic forms and process-oriented workflows. By utilizing the features provided by Microsoft InfoPath 2010, we have already been able to create multiple electronic forms such as specialized service requests and data gathering forms. Applications like SharePoint Designer 2010 and Visual Studio have been explored in creating workflows that are triggered by specific criteria (i.e. adding something to a SharePoint List, specific people editing an item, etc.) and then move the information, tasks, and approvals forward electronically. SQL Server Reporting Services can also be used to populate real time reports of the information submitted on the electronic forms. This enables City decision-makers to have the vital, critical, important and crucial information securely delivered to them wherever they are and at anytime.

Pen and paper form information gathering can be a tedious, time consuming, costly, manual operation, but as some are learning InfoPath has the potential to become a streamlined process. So let’s move away from the paper forms and redundant data entry and tabulation to new solutions that positively affect time management and increase organizational efficiency.

Everything accessible from everywhere and paperless
Transformational Technology Highlights and Opportunities - continued:

**SharePoint Sites**

In May of 2011, we continued to leverage Microsoft SharePoint by upgrading the City’s internal Intranet myGRCity.us to a new generation, SharePoint 2010, which helps the City move towards an enterprise platform. It provides a single point for all information aggregation, search and collaboration. The fact that it is single point streamlines information and can eliminate the confusion of having multiple copies of the same document stored in several places.

SharePoint 2010 brought many new improvements including the ribbon bringing it into alignment with the Microsoft Office 2007 and 2010 suites that are deployed throughout the departments making it easier for site administrators and users. In addition, SharePoint 2010 improved its conformance to web standards, laying the foundation and preparing the way for the City to migrate the public website to SharePoint 2010. Previous versions limited accessibility support to Internet Explorer, however this upgrade expanded and improved the ability for Firefox, Chrome and Safari users.

GRCity.us, the City’s public internet website, was officially deployed in August 2011. The new City website focuses on providing a fresh and cleaner look while providing citizens and businesses with search options to assist them in finding what they are looking for.

On the Home Page, search is very prominent similar to using Google or Bing. From this search screen, one can quickly search for documents, forms, department site pages, etc. The additional enhancements included auto suggestions, best bets, and refined results with filters like result type, date range, and functional areas.
Transformational Technology Highlights and Opportunities - continued:

SharePoint Sites (continued)

The City’s newly updated public website www.GRcity.us features as its home page a search page that contains three navigation link categories:

Quick Links: these are links the city wants to provide easy access to commonly requested information for example: online payments, Dashboards, News. These are links that the city controls and can add/remove.

Top Links: is organically controlled and will show only the top 7 frequently accessed pages. This is based upon the combination of what is searched for and what pages users click on from the search results and from page-to-page navigation.

Departments: these are the links to all city departmental site pages for example: Police or Fire Department, City Manager, City Clerk.

In addition to planning for future upgrades, the IT Department is committed to provide coaching to City departments to help them discover and then engage the time and cost saving benefits for our myGRcity.us and GRcity.us SharePoint sites. Sometimes it can be hard for staff to change how they perform their day-to-day work and this has hindered the SharePoint adoption process. The two new user adoption and engagement strategies that we are implementing are: ShareLab and ShareLove.

OnBase

The City’s Enterprise Content Management application, OnBase, is a document management solution that has extensive workflow capabilities and will be fully integrated with SharePoint. OnBase is currently integrated with Accela. OnBase is going through an upgrade which will allow it to become an integral part of more legacy application replacements. Once fully engaged, OnBase can provide a single indexed repository of all City information including the Clerks Office, ESRI program, Cityworks and more.
Transformational Technology Highlights and Opportunities - continued:

**Mobile Website**

In addition to the redesigned City website we are in the process of creating a basic mobile view for iPhone, iPad, Windows, and Android users that is anticipated to be deployed in early 2012. This is the first step in the creation of a mobile presentation for the City of Grand Rapids SharePoint 2010 website. Utilizing the latest technology innovations, this mobile experience will include intuitive functionality while providing mobile users with quick access to online services, departments, news and search.

**GRCity 311 Mobile Application**

The City’s first mobile application has been a great success and example of transformational innovation.

GRCity 311 Mobile empowers the Grand Rapids’ community to become the eyes and ears of the City. Anyone with an iPhone or Android Smartphone can report pot holes, graffiti, street light problems, and a wide range of other issues from anywhere in the City’s service area. Reports are submitted directly into the City’s Citizen Request Management systems and integrate with the operations work management solutions, giving city workers the information they need to fix the problem quickly.

**More and More—Mobile Solutions**
Executive & Commission Update

Transformational Technology Highlights and Opportunities - continued:

Automatic Vehicle Locator (AVL) and Field Mobility:

The InMotion Mobile Gateway devices along with CalAmp GPS units will expand the use of enterprise technology to field staff in the coming months. Police, Fire, Environmental Services, Water System, Street Maintenance and Sanitation, and Development Center departments are engaging this transformational technology.

The Vehicle GPS tracking data pumped into the City’s fleet-tracker software will provide a flexible and reliable data stream to develop new apps and integrate with existing software for near real-time location of vehicles. This data can be combined with recent investments in GIS route optimization technology to save money on fuel consumption and effectively deploy services along with other performance improvement and efficiency initiatives. As AVL and field mobility mature in the City, new possibilities not yet imagined will emerge in 2012.

Live and On Demand City Commission and Committee Meetings

Cable Company Equipment Grant revenue was utilized to add high definition video teleproduction facilities for the broadcast and web streaming of video that incorporates electronic media for public viewing. Presentations can be viewed by City Commissioners on their laptops during the meeting and cable television viewers will see it on cable channel 26 while internet viewers will see it live and on-demand via the City’s website.

The video streaming options from the City’s website have also improved. We are now offering video streaming in Standard Definition television resolution over the internet.
Transformational Technology Highlights and Opportunities - continued:

**Social Media - Networking**

The City connects with the world electronically in many ways and the opportunities continue to grow. To unify and capitalize on the City brand, a branding assessment is being performed to align our brand extensions and marketing activities. The City brand will transcend social media outlets including Facebook, YouTube and Twitter. These social media outlets will be utilized in PR and marketing campaigns and will also help in crowdsourcing.

**Crowdsourcing**

Crowdsourcing is obtaining various needs, services, ideas or content from a group of people – often an online community. This enables organizations to expand the size of their talent pool while also gaining deeper insight into what customers or citizens really want. Two City examples of this are MyGRCityPoints and Grand Ideas.

**MyGRCityPoints**

In collaboration with several local organizations and internal departments, the City developed MyGRCity Points. This program is a web-based crowdsourcing tool and incentive program that encourages recycling and volunteer participation. The program provides opportunities to earn reward points toward discounts on products and services at local businesses. When citizens engage in the MyGRCity Points program, they directly create a higher quality of life for Grand Rapids and the surrounding communities.

**Grand Ideas**

Everyone has great ideas on the ways that government can improve their lives. Now, the City of Grand Rapids is making it easier for residents and visitors to share those ideas and vote on the ideas of others. In 2011, the City launched Grand Ideas at http://www.grandideas.mygrcity.us. It is an innovative, web-based crowdsourcing application that gives everyone a way to help improve the city where they live and play by sharing their ideas.
Transformational Technology Highlights and Opportunities - continued

Cisco VoIP and Interactive Voice Response (IVR)

Since the implementation of the City’s VoIP phone system, nine departments have leveraged call centers, which have improved service delivery through improved customer phone wait time. Call centers also allow for increased employee accountability through accurate call reporting, call recording abilities, and supervisory monitoring of calls. The Water Department has also utilized Interactive Voice Response (IVR) and its ability for callers to receive water account balance information without speaking to a customer service representative, regardless of the time of day. This ability reduces caller wait time and increases overall customer service quality.

VoIP will continue to be leveraged through the City’s 311 customer service program and through implementation into other departments. Service delivery will continue to be improved as skills-based call routing is fine-tuned to ensure that the calls are always sent to the person most able to answer the questions. The fine-tuned product will reduce customer wait time and increase staff efficiency.

Microsoft Dynamics CRM

Microsoft Dynamics CRM (Customer Relationship Management) is a robust, flexible system that can integrate with the City’s existing software applications and information systems. It provides a single point for citizen information and history. It features a knowledge base that can be utilized by City service representatives and directly by citizens for timely relevant answers. Automated workflows establish processes that facilitate a connected organization that is integrated. In addition, Dynamics CRM can provide the City with business intelligence and analytics, providing insight into the total cost for service delivery.

Microsoft Dynamics CRM will be a key component of the City’s non-emergency 311 customer service project. Customer service will be empowered with the tools needed for faster training, knowledge sharing, and success. The incoming caller identification information can be passed on to the call center service representatives giving the citizen faster results and better service. Microsoft Dynamics CRM is a transformation technology that will enhance customer satisfaction with insightful, actionable intelligence and streamline City staff and resources required to perform a service.
**Executive & Commission Update**

Transformational Technology Highlights and Opportunities - continued:

**311 Customer Service**

311 is a non-emergency single reach contact number that is free to citizens and once it’s live the number can be dialed anywhere inside the Grand Rapids market. A citizen could dial 311 from a cell phone, landline or VoIP phone. An easy to remember quote defining 311 is, “Burning Building, dial 911. Burning Question, dial 311.”

The biggest advantage for citizens is a one-stop-shop for City services and an easier number to remember, just dial 311. Citizens will be able to track their requests, build a relationship, and track their history with the City, making issue resolution much easier for both parties.

The City’s adoption incentive for 311 is cost savings. The total cost of the project is estimated at 1.6 million dollars. The goal is to produce savings for the City. To minimize our risk, the City is breaking the project into phases. The project will consist of three phases. Phase 1 will provide the City with analysis and a design plan for the City outlining the “gaps” of what we need to do financially and operationally to develop a fully operational 311 customer resolution center. After Commission approval, phase 2 and 3 will consist of implementation and process management for 311. The software supporting the effort, Microsoft Dynamics CRM will bridge the existing information systems and produce the central access point necessary for the 311 customer service reps.

The key success factors of this project will be measurable customer satisfaction statistics, and cost savings to the City. Empowered with analytics and business intelligence, the City will be equipped with the tools for service measurement to consistently evolve and successfully change.
Transformational Technology Highlights and Opportunities - continued:

Performance Metric and Measures (Business Intelligence)

Dashboards, scorecards and other initial tools of business intelligence were implemented in 2011. The technological investments and advancements of the past years are the foundation for the initial dashboards and the City is building on those foundations and moving forward with solutions that enable us to monitor performance, monitor trends, and measure accomplishments.

Part of the Governor’s initiative to replace the statutory revenue sharing program for municipalities with an Economic Vitality Incentive Program required a Citizen’s Guide to the City finances and a publicly available performance Dashboard.

The measuring, tracking and communication of the City’s Transformational progress is essential to the City’s efforts for a successful transformation. Coming soon will be the Transformation Investment Plan Dashboard, reporting the progress of the City’s transformational initiatives.
Conclusion

Our City leaders are to be commended for investing in our transformational technology extreme makeover. The technology architectures, frameworks and infrastructures that we have in place position the City for sustainable transformation for years to come.

The list of technology that is ready and available to use is impressive. We have built and deployed the systems and solutions. Now is the time for departments to fully engage the technology that can solve many of our pressing challenges.

The City has technology tools in place that can be used to accomplish more with less, while working smarter. Now is the time for departments to take action, engage, and utilize the transformational technology solutions. Now is the time to use those tools to save time and money without sacrificing our high service standards.

Let’s all leverage technology to affect transformational change. Let’s all engage innovation to change how we work and maximize our capabilities. Let’s all utilize continuous improvement processes and solutions to ensure uncompromised service delivery. Let’s all set and communicate meaningful goals for change, hold people accountable, and frequently measure results. Let’s all move forward with intentional velocity by making intentional decisions and expecting action and momentum with purpose.