

City of San Antonio Development Services Department

Request for Information (RFI)

Land, Permit, Inspection, License, Violation Management System Solution

May 9, 2014



Key Dates:

RFI Release Date	May 9, 2014
Pre-RFI Submittal Conference	May 19, 2014
RFI Submission Date	May 30, 2014

Table of Contents

1.0 Disclaimers	3
1.1 Intent of Request for Information (RFI)	3
1.2 General Terms and Conditions	3
1.3 Confidential Information	4
2.0 Project Background	6
2.1 Goals and Objectives	6
2.2 Project Vision/Mission	6
2.3 Objectives of Request for Information	7
3.0 Current Business Environment	8
3.1 Organizations in Scope	8
3.2 Overview of Current Business Environment	8
3.3 Overview of Current Application Environment	11
4.0 Future State Solution	13
4.1 Future State Application Diagram	14
4.2 Development Services Functional Areas	15
4.3 Portal	16
4.4 Workflow	17
4.5 Electronic Plan Review	17
5.0 RFI Response Format	18
6.0 RFI Submission and Point of Contact	26
7.0 Vendor Registration Requirements	27
8.0 Appendix A – Systems Replacement Use Cases (Draft version)	28
9.0 Appendix B – Current State Applications	29
10.0 Appendix C – Future State Application Diagram (Draft version)	32
11.0 Appendix D – City Technology Standards	35

1.0 Disclaimers

1.1 Intent of Request for Information (RFI)

The Development Services Department (DSD) is responsible for assisting customers through the development process. These processes include preliminary plan review meetings, reviewing, permitting, variances, appeals, inspections, code enforcement, and granting authority to develop land and occupy buildings and ensuring properties are maintained within the City and limited permitting activity is conducted within the Extra-Territorial Jurisdiction. More specifically, the department is responsible for rights determination (RD), subdivision plats addressing, master development plans (MDP), planned unit development (PUD) zoning and sub-division administration, street name changes, addressing, building code administration, contractor licensing and registration, landscaping, tree preservation, sign regulation, and supports various Boards and Commissions. DSD currently uses the Hansen system as the primary tool for permitting and inspections processes, the Enhanced Code Compliance Operations (ECCO) mainframe system for code enforcement, the Plat Tracking System (TPLT) mainframe system for platting process, and the Land Development System (LDS) to track MDP, PUD, and RD. The purpose of this RFI is to solicit information for the Development Services Operations Systems Replacement project that will enable the City to enhance efficiencies and effectiveness of development processes that support City growth and economic development.

The City encourages vendors to either respond to the entire Hansen-ECCO and other systems replacement scope, or to portions of the solution that are particularly relevant to your organization's strength. As a guiding principle, the City seeks pragmatic and cost-effective solutions that minimize implementation risk and maximize value to constituents. The RFI responses, including key questions stated in Section 5, will be instrumental for subsequent procurement activities.

This RFI is for planning purposes only. It is neither a solicitation notice nor a Request for Proposal. Responses to the RFI are not offers and cannot be accepted by the City of San Antonio to form a binding contract. This RFI shall not limit any rights of the City, and the City reserves all its rights including, but not limited to, its right to elect not to procure the goods and/or services that are the subject of this RFI and its right to procure them from a vendor that has not responded to this RFI.

1.2 General Terms and Conditions

1. This is ONLY a REQUEST FOR INFORMATION (RFI) and should not be construed as intent, commitment or promise to acquire or lease hardware, software, services or solutions presented by vendors.
2. The City of San Antonio will not be obligated to any vendor as a result of this RFI. The City is not obligated for any cost incurred by vendors in the preparation of the Request for Information. The City will not pay for any information herein requested nor is liable for any costs incurred by the vendor. For economy of presentation, special bindings, colored displays, promotional materials and the like are not required but if they are presented, the City will not be responsible for this cost.
3. This RFI is being submitted strictly for the purpose of gaining knowledge of the products and services available on the market for leasing personal computers and options available.
4. It is critical to the City that respondents provide cost estimates to assist with budgeting. Refer to Section 5.4 "Pricing". The figures provided are not binding to the company. These costs will assist the City in developing initial strategy, plan and budget.

5. From the information collected through this RFI, the City will review all information and options, assess our needs and refine our requirements.
6. At a later time, the City will release our requirements and pursue a contract through the normal fair competitive bidding process e.g. Request for Proposal.
7. All information obtained shall become the property of the City upon receipt and will not be returned. The City cannot guarantee that it will not be compelled to disclose all or part of any public record under the Texas Public Information Act.
8. In the Request for Information, the City will address a series of questions to vendors and request that vendors reply to the City in the same sequence and format. For detail information, vendors may forward attachments with replies.
9. The City also welcomes vendors to submit any pertinent information that the City should consider, including topics that the City has not included in our RFI.
10. The City requests that all vendors submit replies that are short, clear, concise and complete.
11. The City may arrange a site visit to evaluate a vendor's facility and the material the City receives from the vendor. The City also may also request the vendor to perform a complete demonstration of its systems. And the City may contact references to assess the Systems related to leasing.

1.3 Confidential Information

Submittals received in response to this RFI may contain technical, financial, or other data whose public disclosure could cause substantial injury to the Vendor's competitive position or constitute a trade secret. To protect such data from disclosure, the Vendor should specifically identify the pages of the response that contain confidential information by properly marking the applicable pages and inserting the following notice in the front of the response:

“NOTICE”

“The data on the pages of this response identified by an asterisk (*) or marked along the margin with a vertical line, contain information which are trade secrets and/or whose disclosure would cause substantial injury to the Vendor's competitive position. The Vendor requests that such data be used only for the evaluation of its submitted response, but understands that disclosure will be limited to the extent that the City determines proper under federal, state, and local law.”

In responses containing proprietary information, proprietary paragraphs and/or other data must be clearly marked as noted above. **The Vendor must include one additional unbound copy of the response with the confidential material totally blacked out or removed from the text so that one copy is available as public material. This information may, upon request, be released to the public. If vendor removes text from the Public version, the vendor must leave the equivalent blank space so that the pagination matches the Table of Contents in the original (full version) of the response to the RFI. Within the blank space provide the following statement: CONFIDENTIAL INFORMATION REMOVED.**

The City assumes no responsibility for disclosure or use of unmarked data for any purposes. In the event properly marked data are requested, the Vendor may be advised of the request and

may expeditiously submit to the City a detailed statement indicating the reasons it has for believing that the information is exempt from disclosure under federal, state, and local law. This statement will be used by the City in making its determination as to whether or not disclosure is proper under federal, state, and local law. The City will exercise care in applying this confidentiality standard, but will not be held liable for any damage or injury that may result from any disclosure that may occur. The Vendor agrees to assume and pay for all costs incurred by the City, including attorneys' fees awarded by a court, if Vendor requests the City to resist disclosure of material provided to the City by the Vendor, provided the City determines the said materials are exempt under federal, state, and local law. Further, should you request that portions of your submitted response remain confidential and not be disclosed, please confirm your assurance to indemnify, defend and hold the City of San Antonio by including the following statement in your cover letter:

“Vendor undertakes and agrees to defend, indemnify and hold harmless the City and any of its boards, officers, agents, and employees (collectively, the "City") from and against all suits, claims, and causes of action brought against the City for the City's refusal on the vendor's behalf to disclose trade secrets or other technical, financial or other information to any person making a request. Vendor's obligations herein include, but are not limited to, all attorney's fees (both in house and outside counsel), costs of litigation incurred by the City or its attorneys (including all actual, costs incurred by the City, not merely those costs recoverable by a prevailing party, and specifically including costs of experts and consultants) as well as all damages or liability of any nature whatsoever arising out of any such suits, claims, and causes of action brought against the City, through and including any appellate proceedings. Vendor's obligations to the City under this indemnification provision shall be due and payable on a monthly, on-going basis within thirty (30) days after each submission to Vendor of the City's invoices for all fees and costs incurred by the City, as well as all damages or liability of any nature.”

Failure to include such a statement shall constitute a waiver of a Vendor's right to exemption from disclosure.

Note that wholesale use of headers/footers bearing designations such as “confidential”, “proprietary”, or “trade secret” on all or nearly all of a response is not acceptable, and may be deemed by the City as a waiver of any exemption claim. The identification of exempt information must be more specific.

2.0 Project Background

2.1 Goals and Objectives

The current Land, Permit, Inspection, License and Violation Management systems supporting the City of San Antonio's Development Services (DSD) and Code Compliance departments are based on legacy technologies and are unable to easily adapt to changing business needs. Current challenges include:

- Limited Electronic Plan Review capabilities
- Insufficient mobile capabilities
- Process inefficiencies and data quality issues
- Technological limitations
- Reporting deficiencies

With this replacement project, the City needs to provide greater customer service, increase operational efficiency, maintain system and data security and enable greater transparency into operations. Specifically, the project's business goals are to:

- Provide secure web-based, self-service capabilities to customers
- Improve electronic plan review capabilities to enhance the plan and Plat review processes
- Ensure scalability and flexibility to accommodate future business needs and reduce maintenance effort and dependence on Information Technology Services Department (ITSD) to make configuration changes
- Introduce modern technologies to improve workforce planning, accountability and efficiency
- Ensure accurate and complete customer and location information is available to the workforce, including GIS capabilities
- Automate workflow to support key business processes
- Provide a robust user defined Ad Hoc reporting system
- Increase communication and notifications for all application processes (i.e. correspondences, emails, etc)

2.2 Project Vision/Mission

The City's vision for this project is:

“To enhance the customer experience with land development and code enforcement services as well as other permitting and licensing functions of the City”

The mission of this project is to:

- Improve online services and increase information transparency
- Streamline business processes to improve consistency and reduce cycle times
- Provide a single point of information for all land management, land development, permitting, inspections, reviews (adjustments, exceptions, variances), licensing, and violation enforcement information related to a project/property location
- Adopt a modular, scalable, and configurable solution that can easily adapt to changing business needs

- Improve operating efficiencies by consolidating or integrating multiple systems to support land development, permitting, inspections, and code enforcement processes and create a parent-child relationship between all permits.
- Provide a solution which can be leveraged across the City to realize potential synergies across City business services with similar functions

2.3 Objectives of Request for Information

The City seeks targeted, expedited information from the vendor community to validate its Systems Replacement solution vision, and to learn other valuable information that will help translate the strategy to an actionable plan. As such, this RFI is intended to achieve the following objectives:

- Validate solution architecture and learn of potential alternatives
- Learn of implementation phasing and duration based on previous projects of similar scope, size and complexity
- Understand hosting/deployment model alternatives as well as pros and cons of each
- Obtain information on the security design of solution and alternatives
- Obtain budgetary pricing information to assist with planning and funding activities
- Garner implementation and service delivery best practices from the vendor community based on previous experiences

The City developed the RFI in a manner that intends to streamline responses for vendors in order to receive high quality information very quickly.

3.0 Current Business Environment

In this section, the City provides a brief overview of the current state to provide context for the existing Systems Replacement future vision. Given the focus on the future state, this section will emphasize core participants in development services processes, issues and opportunities the City is seeking to address, and volumetric information to provide an understanding of scale and scope.

3.1 Organizations in Scope

The primary stakeholders of the replacement project are:

- DSD – Plan Review, Land Development, and Field Services/Code Compliance
- Office of Historic Preservation
- Information Technology Services Department
- Transportation & Capital Improvement
- Fire Department
- Parks Department
- Bexar County
- San Antonio River Authority

Other stakeholders that have an interest include:

- Finance
- Downtown Operations
- Police Department
- Aviation
- CPS Energy
- SAWS
- Customer Service (311)
- Animal Care Services
- Convention and Visitors Bureau
- Department of Human Services
- Metropolitan Health District
- Council District Offices
- Solid Waste Management

3.2 Overview of Current Business Environment

The stakeholders of the Systems Replacement project, including DSD departments such as Land Development, Plan Review, and Field Services, currently participate in activities such as application intake, review and management, processing of permits and licenses, plan reviews, and inspections and collecting payments.

Most of these functions are performed by each department independently, resulting in inefficiency due to, but not limited to, redundant manual processes conducted sequentially, limited data sharing and communication between departments, and disparate systems that are not well integrated.

Additionally, DSD enforces municipal ordinances, codes, and regulations regarding the protection of the health, safety, and welfare of all San Antonio citizens. DSD is responsible for the enforcement of several development and maintenance codes.

Currently, the City annually:

- Issues 65,000 permits
- Reviews ~682 zoning board of adjustment, plan amendments and use authorization cases
- Processes ~1,326 plat, MDP, PUD, and rights determination applications
- Manages ~3300 commercial building projects
- Manages ~1900 new residential projects
- Issues over 50,000 trade permits
- Conducts over 200,000 inspections
- Maintains over 200,000 code enforcement records

The table below provides detailed business challenges and opportunities for each of the business objectives that were previously discussed in Section 2.1. The requirements in the table are illustrative. For comprehensive requirements, review the Use Cases included in Appendix A.

Table 1. Business Problems and Opportunities

Business Objectives	Business Needs (Opportunity or Problem)	Specific Systems Replacement Requirements
Provide web-based, self-service capabilities to citizens	Allow citizens to submit, track and pay for services online without visiting Development Services Center <ul style="list-style-type: none"> - Improve customer service by automating transactions - Reduce low-value in-person or phone interactions - Efficient communications between DSD and customers 	Portal capabilities to allow for increased self-service capabilities including: <ul style="list-style-type: none"> - Online research, application, payment, communications and upload capabilities - Real-time tracking of status and issues for applications, permits, inspections and results. - Allow general public to view prescribed information related to land & development activities within the City - Meets Payment Card Industry (PCI) requirements for payments
Improve electronic plan review capabilities to enhance the plan review processes	The process for submitting and correcting plans for review is cumbersome for customers <ul style="list-style-type: none"> - Customers print and submit paper plans - Corrections require reprinting and resubmission The current review process at DSD can be inefficient <ul style="list-style-type: none"> - Serial review of plans - Examiners have to come to 	<ul style="list-style-type: none"> - Improve the online submission of digital plans - Automatically screen and route plans to appropriate Examiners - Allow for concurrent plan reviews by multiple Examiners - Support electronic communications between customers and plan

	<p>the plans (e.g., the “vault”)</p> <ul style="list-style-type: none"> - Comments are captured separately from plans 	<p>Examiners</p> <ul style="list-style-type: none"> - Support electronic resubmission of plans and automated identification of changes
<p>Ensure scalability and flexibility to accommodate future business needs and reduce maintenance effort</p>	<p>Implementing business driven changes to Hansen-ECCO is challenging, time consuming and costly:</p> <ul style="list-style-type: none"> - Requires very specific skill set - Can limit operational capability as policies change - Has resulted in cumbersome workarounds, dummy data entry, and supervisory overrides to manage day-to-day operations - Brittle 	<p>The Hansen-ECCO replacement solution shall be:</p> <ul style="list-style-type: none"> - Modular, as necessary, to ensure best offerings for desired functionality - Highly configurable to support changing needs - Scalable to support DSD growth and/or the addition, if necessary, of other departments
<p>Introduce modern technologies to improve workforce planning, accountability and efficiency</p>	<ul style="list-style-type: none"> - Inspection assignments, routes are managed and tracked manually - Improve mobile technologies and capabilities for field personnel, such as reliable connectivity and batch picture upload capabilities - Maximize communication between all stakeholders and increase notification capabilities 	<ul style="list-style-type: none"> - Automatically schedule inspections accounting for inspection type as well as inspector availability, predefined areas, skill set and workload - Utilize mapping capability to recommend inspection routes - Incorporate handheld devices that support real-time access to location and customer data and capture of field work
<p>Ensure accurate and complete customer and location information is available to the workforce</p>	<ul style="list-style-type: none"> - Data quality can be improved to ensure consistent, accurate and complete information is available to the workforce - Location information does not include GIS metadata 	<ul style="list-style-type: none"> - Include GIS metadata for all locations - Implement a data model that makes all relevant customer and location data accessible from one system, accessible by parcel, address or legal description

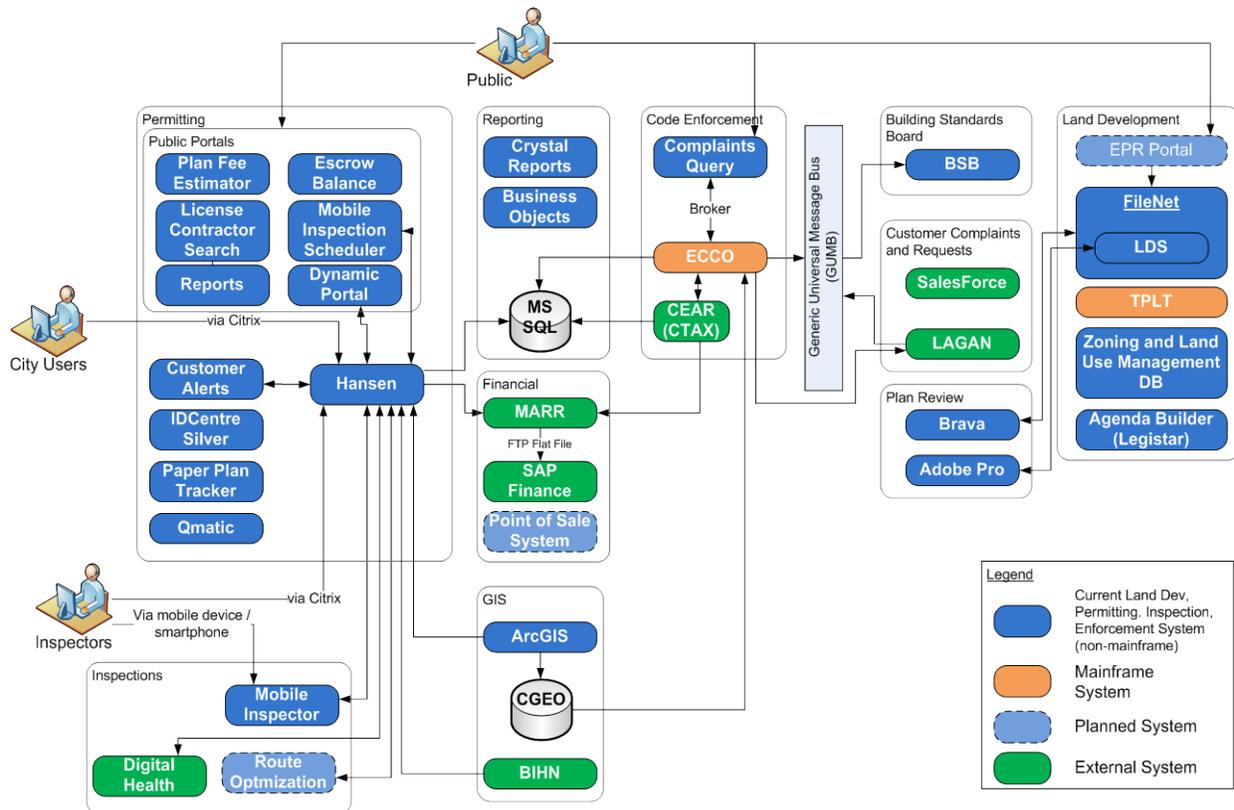
<p>Provide a robust user defined Ad Hoc reporting system to support operations and managerial reporting</p>	<ul style="list-style-type: none"> - Standard/Production reports must be configured and actively managed. - Ad-hoc reporting is a challenge for most users - Access databases and excel spreadsheets are being used to support ad-hoc reporting but require active management 	<ul style="list-style-type: none"> - Enable standard reports for executive, managerial, and operational reporting - Provide users with report templates containing common elements to facilitate ad-hoc reporting - Provide documented data dictionary and data extraction wizard to facilitate reporting - Provide standardized out of the box data sets related to permitting, violations, and other relevant topics to be published on City Open data portal
<p>Automate workflow to support key DSD processes and ensure current capabilities are sustained</p>	<ul style="list-style-type: none"> - The workflow existing in Hansen is too restrictive, has its shortcomings, and requires numerous workarounds and supervisory overrides - There are no automated/tracked workflows between other city departments and external reviewing agencies. - ECCO does not have workflow capabilities 	<ul style="list-style-type: none"> - Workflow management functionality that can automate and adapt to current processes - Integration with ancillary systems that perform well or satisfactorily provide desired functionality

For more information, please refer to the following websites of some of the City's main departments:

- DSD: <https://www.sanantonio.gov/dsd/>
- Office of Historic Preservation: <http://www.sanantonio.gov/historic/>
- Public Works: <http://www.sanantonio.gov/publicworks/>
- Fire Department: <https://www.sanantonio.gov/SAFD>
- Finance: <http://www.sanantonio.gov/Finance.aspx>

3.3 Overview of Current Application Environment

The City intends to make significant improvements to the way it provides business services, and is focused on the development of a strategy to establish modern and consolidated applications and technologies to support these services, rather than constraining the future state based on the current environment. Below is a current state application diagram.



The Hansen system is the core system used for managing permits and relevant administrative functions (e.g. preliminary meetings, plan review meetings, code modification requests, etc), zoning, variances and exceptions, contractor licenses, and inspections. It has been enhanced with database triggers to notify contractors (i.e., Contractor Notification) and customers (i.e. Customer Alerts) upon certain workflow events. The public can apply, pay for permit and inspection fees, and manage their accounts online through Dynamic Portal. They can also find certain information through a variety of other public portals. City users access Hansen through Citrix as Hansen is a fat client and is installed on a limited number of machines. Payments collected through Hansen are report to Municipal Accounts Receivable Receipt (MARR) which FTP's a daily flat file to the City's financial management system, SAP Finance. Many plan reviews are performed using paper copies of the plans. However, recently the permitting plan review group has begun using Brava integrated with FileNET.

DSD has several custom mobile tools integrated with Hansen that provide field access. The Mobile Inspector allows inspectors to pass/fail inspections. This is primarily a back-up system when Hansen is not available. There is also the Mobile Inspection Scheduler that allows contractors to request an inspection. Hansen is currently integrated with Digital Health where Hansen sends permit information, and Digital Health sends health inspection results back. Finally, a Route Optimization system that will integrate with Hansen is currently in the procurement process.

Code Enforcement is handled in the Enhanced Code Compliance Operations (ECCO) mainframe system. It allows users to track violations and generate correspondences, but lacks workflow. It is currently receives complaint information from the City's 311 LAGAN system via the City's custom Generic Universal Message Bus (GUMB), and sends back complaint resolutions directly to the LAGAN database. Public users may access complaint information via the Complaints Query application. For some enforcement cases, the City may bill the public for

work performed. These cases are sent to MARR via Code Enforcement Accounts Receivable (CEAR) for creating of billing statements.

Land Development activities are managed through a variety of systems. Most recently, the Land Development System (LDS) was developed on FileNet to manage workflow for Master Development Plans, Planned Unit Developments, Rights Determination, and Fair Notice applications. Land Entitlements use Adobe Pro for plan review redlining, and the City is also working on a customer portal to allow applicants to submit their plans online (EPR Portal). Public hearing agenda's are created with Microsoft Word. Platting is currently managed in the Plats Tracking System (TPLT) mainframe. Additionally, there are a variety of Access databases used for zoning, street name changes, addressing, and land development activities.

ArcGIS is the City's enterprise GIS solution. It currently replicates GIS information to CGEO data store for use by the ECCO mainframe. And it currently provides address, parcel, and zoning information to Hansen.

Enterprise reporting is accomplished using Crystal Reports to access an MS SQL data store that receives information from Hansen, ECCO, and CEAR. DSD also has an SQL SME that queries/extracts data in Hansen for various department reporting needs.

Refer to Appendix B – Current State Applications for further details about each system.

4.0 Future State Solution

The following section elaborates on the future state solution for the Systems Replacement. It begins with a future state application diagram showing the expected components and their relationships. Secondly, the permitting/licensing lifecycle is presented to illustrate the core flow of services across functional areas. Third, the three primary elements of the solution – portal, workflow management and electronic plan review – are described to convey the vision for these components. Finally, an overview of the use cases that combine to form the services the City provides is described.

4.1 Future State Application Diagram

Below is the City's future state vision for the Systems Replacement. The core Land Management, Permitting, Inspections, Licensing and Enforcement functionality is represented by the section in the upper left. Of particular note, are the Public Portal, Workflow Management, and Electronic Plan Review, which must operate seamlessly together and operating against a common "Operations Database" The core functionality is expected to provide portal, workflow, business rule, collaboration, GIS, document management, account management, financial management, customer self-help, notifications, flagging of a property, and analytics capabilities to enable the functionality described in the Appendix A - Use Cases. For descriptions of these capabilities refer to Appendix C – Future State Application Diagram.

The City has a set of technology standards, provided as Appendix D (Sec 11), which represents the infrastructure services provided within the organization. This is informational in nature and should not be considered as a constraint and/or disqualification of potential responses which may deliver a State-of-the-Art solution to meet the City's business needs.

The Systems Replacement solution shall exchange data with several external systems. Several interface mechanisms may be used depending on the need. They include message bus, web services, or FTP of flat file. The critical integrations include:

- City's 311 LAGAN System to receive complaints and to send back resolutions via the GUMB message bus.
- SAP Finance to report financial transactions to the City's financial management system via FTP flat file.

Other potential integrations are aimed at reducing user "swivel-chair" between the Systems Replacement and external systems. Additional descriptions of external sources are in Appendix C – Future State Application Diagram.

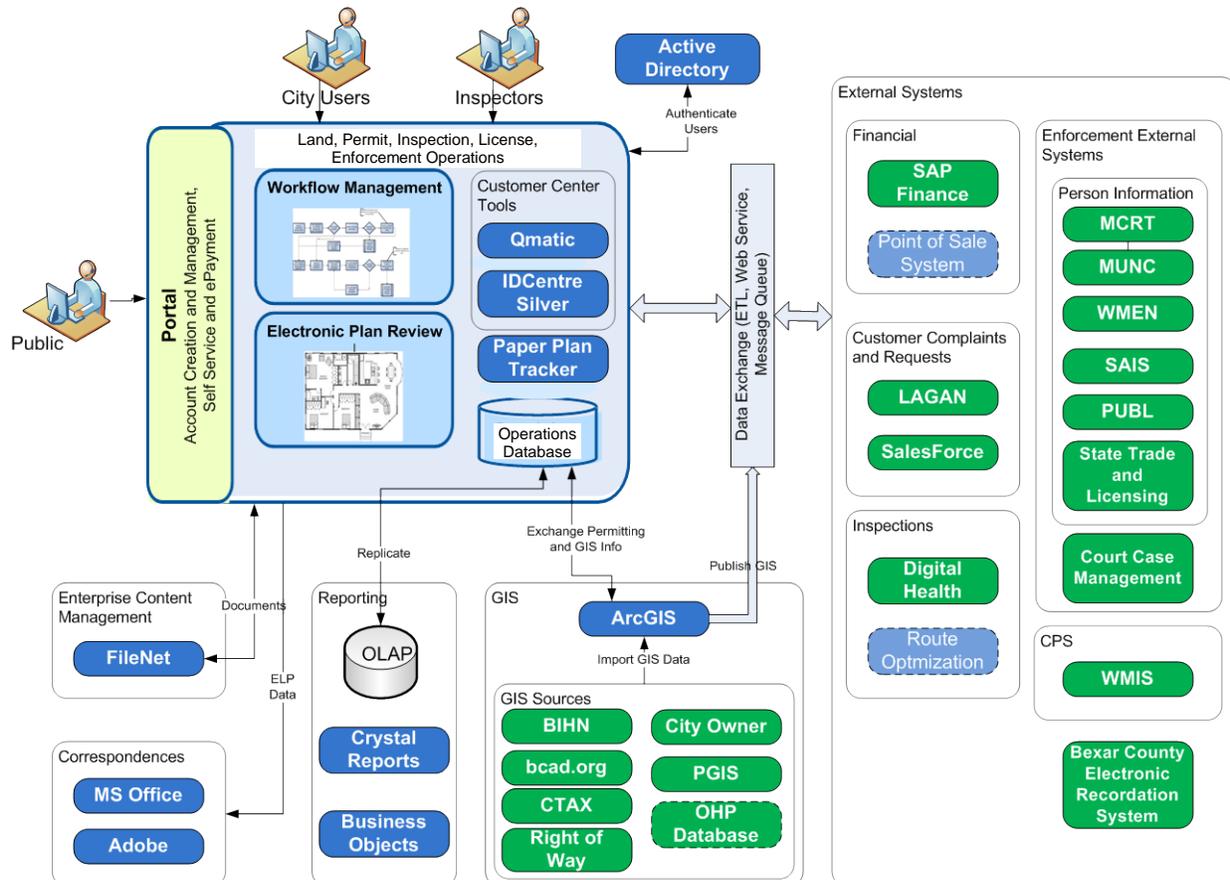
The City handles over 200,000 inspections annually and routing of inspectors has been a challenge. The City is interested in Route Optimization functionality that can optimize routes given the following parameters:

- Inspector geographic assignments and project assignment to an address
- Inspector skills/certifications
- Inspector workload requirements (e.g. meeting individual inspection quota's)
- Inspector starting location
- Inspector availability (based on inspector's calendar)
- Inspection type and estimated difficulty
- Inspection location (address, or coordinates)
- Inspection priority
- Requested inspection time and real-time changes (e.g. customer cancels)
- Supervisor real-time overrides
- Real-time traffic

Additionally, the solution shall:

- Allow inspector geographic assignment boundaries to be drawn on a map by the inspection supervisors
- Use vehicle GPS instead of mobile device GPS (more accurate) for tracking
- Provide seamless integration between new permitting system and Route Optimization when entering inspection results
- Update routes real-time as inspectors progress with work during the day
- Graphically display inspection locations on a map for both the inspector mobile device and a dashboard for supervisors to monitor inspectors progress and if a shifting of inspections is necessary due progress
- Notify customers of updated ETA

Data transparency is a key objective for Systems Replacement. To this end, the solution shall provide a replicated Online Analytical Processing (OLAP) repository for reporting purposes. The City currently uses Crystal Reports and Business Objects for building and delivering reports.



The City is interested in a City hosted solution, but may consider alternative hosting options such as Vendor hosted or cloud solution.

4.2 Development Services Functional Areas

To help illustrate how services are delivered, the figure below provides a lifecycle perspective for the Systems Replacement. At a high level, each application goes through the same core process steps. Currently, depending on the service the customer is looking to obtain, these steps can vary tremendously from being simple, straightforward, transparent, quick and cheap, to being highly complex, overlapping, out-of-order, repetitive, and expensive. However, each service, even the simplest one, will have the following basic steps (except plan review) and represent a baseline workflow for all services. Refer to Appendix A Systems Replacement Use Cases for detailed understand of the user functionality that the system needs to provide.

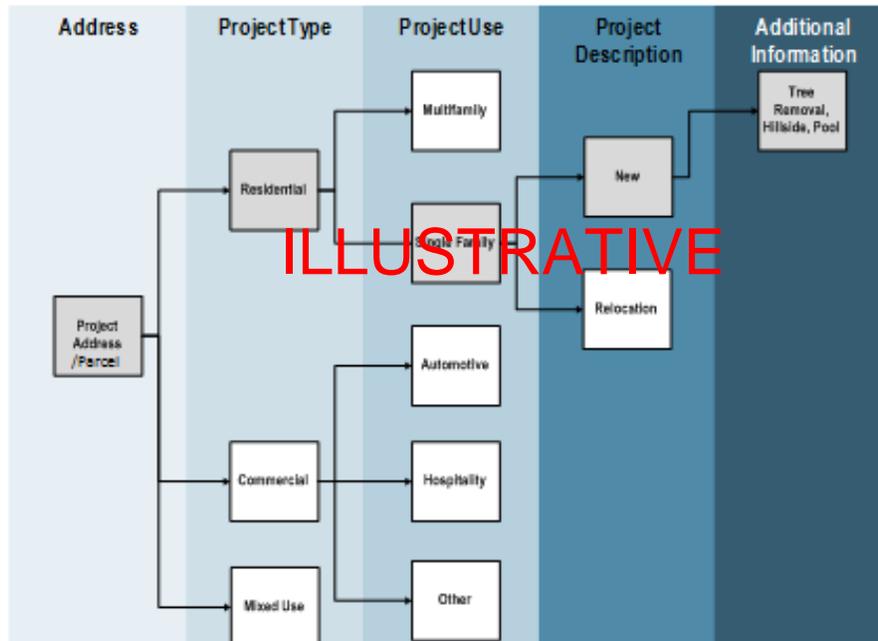
Intake & Customer Service	• Activities related to customer assistance and application submittal
Land Management	• Activities related review and approval of MDPs, PUDs, Rights, Fair Notice, Street Name Changes, Addressing, Plats, Tree Presevation, Traffic and Zoning
Permitting	• Activities related to application processing and approval/denial; Permit issuance and renewals
Plan Review	• Activities related to review and approval/denial of plans
Inspections	• Activities related to performing onsite inspections
Complaints & Enforcement	• Activities related to monitoring and enforcing compliance
Licensing	• Activities relating to the licensing of individuals to provide services
Finance & Cashiering	• Activities related to performing financial activities, including payments, refunds, invoicing, etc.

4.3 Portal

The vision of the Systems Replacement public portal is that it will be a “one-stop shop” for all interactions between the public and the City for development licensing and permitting. Examples include:

- The public would use the portal to gather information about the City’s development service offerings, application requirements and in-progress and completed development activities.
- The development community would use the portal to manage and track application activities, pay fees and fines and obtain relevant project information.
- The City would use the portal as a means to communicate static as well as real-time data to the public, facilitate the provision of services and to communicate information regarding specific development activity to relevant parties.

One of the core capabilities of the portal is to present a “wizard” interface that would guide users through the process of selecting the appropriate service and collecting the right information and documentation to build an application. Conceptually, this is similar to a consumer using online tax preparation software that hides the complexity of the tax code and myriad of forms associated with the filing process. This wizard implements a decision tree at a coarse level and specific business rules at a granular level.

Figure 1. Sample Decision Tree

4.4 Workflow

The City of San Antonio provides a myriad of services, and many different permits to the development community that require different types of reviews, sign-offs and inspections. The workflows used to perform these functions are often complicated, consisting of many steps crossing to and from several departments and requiring input from different sources, including the applicant, various City agencies, and several outside agencies. The workflow component should streamline each process followed by the City by standardizing and reusing repeatable processes, automating task assignments and managing documents. The workflow management component should integrate with the portal to provide real-time data to online users. This component should also integrate with the Electronic Plan Review functionality described below; as such functionality is a vital to the City's core service offerings.

Additionally, it is imperative that workflows and business rules can be changed with configuration to quickly adapt the system to ordinance changes. This configuration should be easily accessible and not require coding. The configuration should be able to be performed by Business Subject Matter Experts designated as System Administrators.

4.5 Electronic Plan Review

Many of the project stakeholders review plans submitted as part of the application process for the services provided by the City of San Antonio. The Electronic Plan Review (EPR) component will integrate with the Workflow Management component. Based on application data passed from the Workflow Management component, the EPR component would be able to route electronic plans and related attachments submitted by developers via the portal, to individual reviewers, or groups of reviewers, at one or many appropriate departments. Reviewers will be able to annotate remarks and/or mark up plans to overlay on the original and send a notice back to the applicant, who would be able to view comments online. Reviewers would be able to view historical comments and the progression of submitted and resubmitted plans. Upon final approval of plans, the EPR component should be able to automatically update the appropriate workflow step in the Workflow Management component.

5.0 RFI Response Format

The City is requesting all vendors interested in providing information regarding solutions for any or all components, and related implementation and support services, to submit a response containing the information requested in Sections 5.1 through 5.5.

5.1 General Vendor and Product Information

Please provide responses for the following topics. Targeted responses that relate back to the Systems Replacement project scope, vision and use cases are highly encouraged.

- Vendor profile, history, general business strategy, and alignment of corporate vision with the City's goals
- Previous experience implementing similar solutions for clients of a similar size and complexity
- Proposed solution components by key area (i.e. Portal, Workflow and Electronic Plan Review)
- Product offerings and descriptions of how they would meet requirements
- Product Roadmaps
- Key product and implementation partnerships that relate to Systems Replacement scope as describe in the future solution vision above. In particular the City is interested in information regarding:
 - COTS Message Bus
 - As described in the Current Application Environment, the City is using a custom developed Message Bus (GUMB). The City is interested in details about COTS Message Bus options that could be used for all enterprise application communications.
 - Route Optimization – as describe in section 4.1
 - Any additional components the Vendor deems pertinent to discuss in detail.

5.2 Key Questions

In addition to the above, the City is seeking answers and insight in relation to a number of specific topics. Vendors are asked to provide brief answers to the following questions.

Functionality

1. What phasing options do you suggest for the City given the desired functionality? Where have you successfully employed this phasing in the past? Do you envision different phasing options for managing risk vs. cost?
2. Considering the Systems Replacement goals and use cases described in Appendix A, would you recommend significant changes to the future state application diagram described in Section 4.1?
3. Which of the proposed products drives the overall architecture and why?
4. Based on your experience with informational customer self-service knowledge bases in this domain, how would you approach the development of a knowledge base that yields a responsiveness of 85% or better?
5. Based on your experience with transactional customer self-service in this domain, how would you approach the development or provision of a “wizard” that would provide a

guided user experience to select of the appropriate service and collect the pertinent data or documents, based on specific rules?

6. Based on your experience with rule automation in this domain, what is the estimated portion of service scenarios that can be pragmatically expressed and executed through rule automation, and which constraints to you envision?
7. Given the different functional aspects encapsulated in the customer portal (transactional, informational, interactive channels), to which degree would your solution provide a seamless and consistent user experience?

Architecture and Hosting

8. How would you approach the integration of the proposed products into the overall solution?
9. Since the envisioned solution is a composite application that contains different technologies, and exchanges with existing systems, how would you approach integration? Where would you draw a distinction between point-to-point interfaces versus a bus-based approach?
10. The City envisions that multiple agencies may wish to share the same platform. What options are there for hosting multiple tenants in one environment? Discuss benefits, challenges, and other points that the City needs to consider.

Delivery

11. Based on your experience, what key roles, overall staffing needs, and other internal staffing considerations would you suggest for the City for implementing and supporting this project?
12. What performance metrics and return on investment parameters have you used in the past to measure the benefits of implementing solutions like Systems Replacement?
13. Based on your experience, what are key risk factors and critical success factors the City should be aware of as it plans for the procurement and implementation?
14. Have any of your customers adopted a similar service management model for delivery of development services? If yes, please elaborate on similarities, differences, best practices and lessons learned.
15. If your response is limited to a subset of the RFI requirements, how would you envision partnering with other organizations to deliver a comprehensive solution?

5.3 Solution Capability to Meet Requirements as stated in the Use Cases

The City is particularly interested in obtaining information on how your product(s) can meet the requirements as described in the Use Cases in Appendix A of this RFI. This information will enable the City to better scope and phase the implementation of Systems Replacement functionality. Please complete the following template by indicating how your product(s) can meet the City's requirements. For systems integrators and services firms, please provide information on phasing and any other input you feel will be helpful for the City in planning for Systems Replacement project.

Please complete the table below using as follows:

- **Solution Component** – Describe which software component(s) meets the requirements described in the use case. Indicate whether the product is part of your firm's core suite or a third party product.
- **Level of customization** – Using the codes below, indicate whether your solution can meet the requirements out of the box, through configuration, customization or if the functionality will be available in the future.
 - O – Out-of-the-box
 - G – Configuration
 - C – Customization
 - F – Future Functionality
- **Proposed Implementation Phase** – The City is considering implementing a comprehensive Development Services operations system over the course of 1 year. Based on your experience, please provide guidance on time period and phased approach.
 - Phases should be described / scheduled as a roadmap to address Permitting, Inspection, Licensing, Registration, Land Management, Compliance, Plan Review, etc. service components. The order of service components is not reflective of the City's desired approach.
- In addition to the responses below, provide information on specific use cases or requirements in the use cases that would be difficult to address (e.g. require significant customized coding, drive costs, introduce risks).

Use Case ID #	Use Case Name	Solution Component	Level of customization	Proposed Implementation Phase
1.1	Use Case: Select a Service			
1.2	Use Case: Submit Application Online			
1.3	Use Case: Review Application for Completeness			
1.4	Use Case: Request Additional Information from Applicant			
1.5	Use Case: Review Application Status Online			
1.6	Use Case: Submit Additional Information Online			
1.7	Use Case: Request Online Portal User Account			
1.8	Use Case: Activate Online Portal User Account			
1.9	Use Case: Modify or Withdraw Application			
1.10	Use Case: Record Internal Note			
2.1	Use Case: Perform Platting			
2.2	Use Case: Verify Zoning of a Property			
2.3	Use Case: Perform Technical Review of Land Development Application			
2.4	Use Case: Document Staff Recommendation			
2.5	Use Case: Build Agenda for Review			
2.6	Use Case: Assign New Address			
2.7	Use Case: Maintain Parent/Child Relationship Between Existing and New Land Development Applications			
2.8	Use Case: Monitor Project Validity			

Use Case ID #	Use Case Name	Solution Component	Level of customization	Proposed Implementation Phase
2.9	Use Case: Flag a Property/Lot or Parcel			
2.10	Use Case: Manage Consent Agreement			
2.11	Use Case: Manage Performance Agreement			
2.12	Use Case: Manage Time Extension for Plat & Site Improvements			
2.13	Use Case: Manage Traffic Impact Analysis Process			
3.1	Use Case: Issue Permit			
3.2	Use Case: Monitor Active Projects			
3.3	Use Case: Request Review of Issue			
3.4	Use Case: Schedule Review			
3.5	Use Case: Conduct Review			
3.6	Use Case: Indicate Final Project Clearance			
3.7	Use Case: Manage Permit Renewals			
4.1	Use Case: Submit License Application Online			
4.2	Use Case: Submit License Renewal Online			
4.3	Use Case: Manage License Renewals			
4.4	Use Case: Schedule an Exam Online			
4.5	Use Case: Manage Examination Schedule			
4.6	Use Case: Conduct Examination and Record Outcome			
5.1	Use Case: Submit Plans Online			

Use Case ID #	Use Case Name	Solution Component	Level of customization	Proposed Implementation Phase
5.2	Use Case: Assign Plans for Review			
5.3	Use Case: Review Plans			
6.1	Use Case: Submit Inspection Request Online			
6.2	Use Case: Create Inspection			
6.3	Use Case: Assign and Manage Inspections			
6.4	Use Case: Conduct Inspection			
6.5	Use Case: Record Inspection Outcome			
6.6	Use Case: Issue Utility Release			
7.1	Use Case: Record Violation			
7.2	Use Case: Report a Complaint			
7.3	Use Case: Manage Complaints			
8.1	Use Case: Submit Online Payment			
8.2	Use Case: Record Payment Made in Person			
8.3	Use Case: Request a Refund			
8.4	Use Case: Issue a Refund			
8.5	Use Case: Request Escrow Account			
9.1	Use Case: Setup Internal (City Employee) User Account			
9.2	Use Case: Manage Business Rules and Workflow			
9.3	Use Case: Manage Fees and Distribution			
9.4	Use Case: Manage GIS Information			

5.4 Estimated One-Time and Ongoing Costs

The City is in the process of determining the costs and benefits of implementing the Systems Replacement solution and is seeking pricing information to help build the business case for the program. Obtaining cost estimates is critical to moving the project forward, and the City has provided a streamlined template to help gather this information quickly.

The vendor is requested to provide general cost structure/pricing based on prior projects of similar size and scope. The City seeks to gain an understanding of the potential costs associated with a solution that meets stakeholder requirements. Indicate what your firm believes to be reasonable potential cost estimates associated with implementing a solution of similar size and scope based on prior experiences. The City realizes that any estimates are based on limited information and will not be considered contractually binding. Please be advised that these estimates are for informational purposes only and will be used to guide the budgeting process for the upcoming procurement activities for the Systems Replacement solution.

Vendors are requested to fill out the summary table below. One-time cost estimates include all project costs leading up to final deployment. For ongoing costs, please provide an estimated annual cost. While the intent is to facilitate responses for vendors, please provide as much detail and explanation as appropriate to help the City with budgeting efforts.

Table 2. Cost Estimate Worksheet

Cost Element	One-time Costs				Ongoing	Notes
	Unit Cost Estimate	Unit Type (i.e., per user, server)	Quantity	Cost Estimate	Recurring Cost Estimates (annual)	
Software						
Hardware						
Implementation Services						
Other						

In regard to implementation services, please provide typical unit costs, cost ranges, or other cost parameters that will help the City budget for key implementation activities such as:

- Interfaces
- Data conversions
- Report development
- Training
- Testing
- Organizational change management
- Migration of legacy data from various systems
- Hosting options
 - City Hosted Systems hardware and core software
 - Vendor Hosted

Additionally, the City is interested in cost estimates for the following components as described in the Future state solution architecture:

- COTS Message Bus
- Route Optimization

We understand this is a partial list, but also know these activities to be key drivers of cost, timeline, and risk. Please provide additional information on other key implementation activities that you feel will assist the City in budgeting for the Systems Replacement System.

Please clearly state any assumptions you have made regarding cost estimates. If your firm uses a different pricing structure, describe your pricing structure, key variables, and any assumptions made about your cost estimates.

5.5 Other Considerations for the City

In this section, please provide any other information that you find relevant for the City to consider as it plans for the procurement and implementation of the Systems Replacement solution. If you do not have any additional information to add, include the following statement for this section: “THERE IS NO ADDITIONAL INFORMATION TO BE CONSIDERED”.

6.0 RFI Submission and Point of Contact

Gilbert Barrera, PMP
 Sr. Project Manager
 City of San Antonio
 Information Technology Services Dept. (ITSD)
 425 Soledad, Suite 350
 San Antonio, TX 78205
 Office: (210) 207-5551
 Fax: (210) 207-5556
Gilbert.Barrera@sanantonio.gov
www.sanantonio.gov

6.1 Schedule of Events

Description	Date
RFI Issue Date	May 8, 2014
Question(s) submission Deadline All questions must be submitted via email to Point of Contact.	May 15, 2014 2pm
Pre-RFI Submittal Meeting Vendor Forum Physical Address: Cliff Morton Development and Business Services Center 1901 South Alamo San Antonio, Texas 78204 - Directions Conference Call Information: Local Access: 210-207-8000 Toll-Free: 855-850-2672 Meeting ID: 0547#	May 19, 2014 ; 1:30p – 3:30p (CST)
RFI Deadline Please note that there will be no grace period for receiving late RFI submittals. Any RFI responses submitted after the deadline, will be returned unopened marked with the date and time the submittal was attempted. No exceptions, even if it is due to the method of delivery.	May 30, 2014 by 4:30pm

7.0 Vendor Registration Requirements

Every vendor and others wishing to do business with the City of San Antonio MUST FIRST register with the City. The city is expected to be releasing a Request for Competitive Sealed Proposal (RFCSP) by the end of the 3rd quarter of the 2014 calendar year which will require any interested vendor to be registered in order to receive and engage in the RFCSP process.

TO REGISTER: You will need to complete the vendor registration by accessing the SAePS Vendor Registration at <http://www.sanantonio.gov/purchasing/SAePS.aspx>. Questions regarding registration may be submitted to the SAePS Hotline at: (210) 207-0118 or by email at: vendors@sanantonio.gov

8.0 Appendix A – Systems Replacement Use Cases (Draft version)

Please reference separate document for Appendix A.

[“RFI – Land-Permit-Inspection-License-Violation Management System - v6 - Appendix A”](#)

9.0 Appendix B – Current State Applications

ID	System Name	Description
1	Active Directory	The lightweight directory access protocol (LDAP) system centrally manages user accounts and permissions.
2	Adobe Pro	LDS users use this tool to conduct electronic plan review.
3	Agenda Builder	Agenda Builder automates creation of City Council Agendas. It is not currently used for Planning Commission or Zoning Commission agendas.
4	ArcGIS	ArcGIS is DSD's system of record for GIS data.
5	BSB	Building Standards Board (BSB) web application is used to track enforcement cases.
6	CEAR	Code Enforcement Accounts Receivable (CEAR) sends detailed transactions to MARR. Subsystem of CTAX.
7	CGEO	This is the ECCO system's version of GIS data. It is a separate repository from ArcGIS.
8	Complaints Query	Web application that allows the public to query complaint information that is in ECCO by date and location parameters.
9	Crystal Reports	Reporting tool.
10	Customer Notification	Custom application integrated with Hansen, LDS, and TPLT that provides notifications emails to Customers when certain workflow steps have been completed.
11	Brava	Brava is used to mark-up digitized plans. It also notifies customers about markup that needs to be reviewed.
12	Dynamic Portal	The Hansen public portal which allows the public to submit and pay for applications online, schedule inspection requests, and track application progress.
13	ECCO	Enhanced Code Compliance Operations (ECCO) is used to manage code compliance activities. It is used to record violations and generate correspondences. It tracks property cases and actions until the case is resolved. It also captures complaints (via LAGAN interface) and captures actions take. Cases are automatically assigned to investigators based on category and location.
14	Electronic Plan and Plat Review Portals	Expected Plan Review portal by May 2014 to allow development community to submit plans for Intake/Review operations. Expected Plat Review Portal by September 2014. This public portal allows online submission of plans for LDS applications that include MDP, PUD, and RD.
15	Escrow Balance	This public web page allows contractors to track their escrow accounts.

16	FileNet P8	<p>FileNet is primarily used for DSD LDS document management; it is the core component of LDS. It is also used by the City Clerk for archiving files and tracking vital statistics. There is currently no integration with Hansen, but files between FileNet and Hansen are linked by matching AP number. Users access FileNet directories through a URL to browse and import files.</p> <p>Imaging functions are not currently used. Record management functionality is currently in-progress. Building records must be kept for 7 years after destruction of the building.</p>
17	Hansen	Hansen allows DSD staff to manage permit applications, permit issuance, and manage inspections.
18	IDCentre Silver	Used by DSD to produce photo license cards.
19	LDS	<p>Land Development System (LDS) provides workflow automation for processing Master Development Plans (MDP), Planned Unit Development (PUD), Rights Determination (RD), and Fair Notice (FN). It includes forms for clerk entry, workflows for review, due date notifications, document attachment, fee tracking, validity, and application timelines. Phase 1 currently does not provide online portal or payment processing. There is a phase 2 planned for this year to deliver the following functionality:</p> <ul style="list-style-type: none"> • Public portal for application submission • Payment processing • Reporting/performance measures • Easier configuration (e.g. fee calculations) <p>This application is being included in comprehensive Development Services operational systems replacement.</p>
20	License Contractor Search	This website allows public users to search for licensed contractors.
21	Mobile Inspector	Mobile Inspector allows inspectors to pass/fail inspections. This is primarily a back-up tool in case Hansen is not accessible. The objective is to allow inspectors to enter in results as soon as possible because it triggers customer alerts and downstream workflow.
22	Mobile Inspection Scheduler	Mobile Inspection Scheduler allows contractors to pick a permit and select inspection type and request time. The goal is to make it easier for contractors to schedule inspection requests out in the field.
23	Paper Plan Tracker	This system tracks who has checked out paper plans for review.
24	Plan Fee Estimator	This public website that allows user to estimate plan fees.

25	Route Optimization	Expected May 2014. Route Optimization will optimize ~1000 inspections per day. Known functional limitations: Route Optimization will require that inspections already be assigned to inspector (affects the Hansen/ECCO replacement requirements, this may be ok).
26	TPLT	Plat Tracking System (TPLT) is used to manage the plat application submittals, reviews, approvals, and recordation processes.
27	Qmatic	This system is used to manage the DSD in-person queue.
28	Zoning and Land Use Management	Variety of Excel spreadsheets and Access databases used to track Zoning and Land Use work.

10.0 Appendix C – Future State Application Diagram (Draft version)

Future State Solution Component Descriptions:

Components	Description
Portal Customer Self Services	<p>Customer self-services consist of capabilities for users to learn about the permitting process, prior to submitting an application and perhaps prior to construction activities in order to streamline the process, and transactional services that execute the permitting process across various departments on behalf of the user. Includes capabilities:</p> <ul style="list-style-type: none"> - Application Wizard - Application Management - Plan Review Collaboration - Account Management - GIS User Interface - Fees, Cashiering - Self Service Knowledge Base - Virtual Assistants - Peer-to-Peer Community - Public Inquiry - Web Chat - Email Response Management - Collaborative Browsing
Portal Support Services	<p>Support services within the Portal consist of capabilities for City users to directly support customers through the assisted channel (described under Customer Self-Service) and to support the management the permit application processes. Includes:</p> <ul style="list-style-type: none"> - Workflow Analytics - Workforce Management - Collaboration - Knowledge Management
Rule Automation	<p>Rule automation serves three purposes:</p> <ol style="list-style-type: none"> 1) Support the Application Wizard by helping users to “build” smart permit applications that are aware of the rules, and streamline the process. 2_ Support decisions within the Macro Process Automation capability by extracting complex rules/decision trees from the workflow tool. 3) Support the clearance process as executed by departments, by using a consistent set of rules across the organization. <p>Capabilities include:</p> <ul style="list-style-type: none"> - Rule Execution - Rule Management

Process Automation and Management	<p>The goal of Macro Process Automation is to capture the inter-departmental workflow of the services that implement permit processes, and execute them in an automated framework. Capabilities include:</p> <ul style="list-style-type: none"> - Workflow Execution - Workflow Modeling - Fee Management - User Account Management - Auditing - Analytics
GIS	<p>The GIS capability enables a parcel-centric (or location-centric, in case there is no parcel within a development location) perspective, rather than one merely based on street addresses. This capability interacts with the City’s existing GIS sources.</p>
Document Repository	<p>The Document Repository provides centralized storage of, and access to, all documents related to permit applications. It will be used by all involved departments and be integrated with the departmental capabilities.</p>
Electronic Plan Review	<p>Electronic Plan Review replaces the paper drawings that used today. The goal is to allow users to upload electronic plans when submitting permit applications, and use these plans throughout the process, after which they become part of the document repository. Capabilities include:</p> <ul style="list-style-type: none"> - Markup and Manage
Integration	<p>The future state solution consists of multiple capabilities that operate in integrated fashion. In some cases, it makes sense to integrate directly between components, such as a GIS viewer in the portal and the GIS back-end components. In other cases, it makes sense to go through an intermediary integration capability, such as communicating with existing systems that may require customization on either end to establish exchanges. This capability can be implemented through a wide range of technologies, ranging from simple service bus products to full-fledged Enterprise Integration suites. In some cases, products that cover the Macro Process Automation (which supports process orchestration, in this model) may also cover integration.</p>

Additional External Interfaces:

The replacement system is expected to be able to interface with several external systems possibly through a variety of mechanisms such as web service, FTP or flat file, message bus etc . Below are several of the possible external systems to interface with.

System	Description
Court Case Management	Code Enforcement Officer may issue citations that are delivered to Municipal Court for filing into the Court Case Management System. This interface will allow the replacement system to track the process of the citations as they progress through hearings.
Digital Health	Digital Health is used to manage health inspections and other health business processes. This interface will enable the replacement system to send health related permits and receive inspection information.
Bexar County Electronic Recordation- E-File Secure	Bexar County system that they utilize for electronic recordation. The land development platting process will be using this in the near future. The replacement system will automatically send documents to be recorded.
Municipal Court Criminal Justice System	This is the mainframe Municipal Courts System (MCRT). The replacement system checks contacts for criminal convictions, cases reported to the municipal court, and criminal affidavits. The Replacement system should not receive and store any details, but will only provide a warning flag to the user.
Public County Information	This mainframe system allows users to access marriage license information, voters registration, criminal background information. The Replacement system will interface with PUBL to retrieve additional contact information.
San Antonio Information System	This mainframe system is the voter registry application that code enforcement uses to identify the persons living at an address for investigation purposes. The Replacement system will interface with SAIS to identify persons given an address.
State Trade and Licensing	The Replacement system will interface with the State Trade and Licensing system to verify the status of professional licenses.
SAWS Web Application	The Replacement system will interface with the SAWS web application to establish occupancy, phone numbers, and utility status for a given address.
WMIS	The Work Management Information System (WMIS) for CPS who provides electric and gas utilities to the public. This interface will allow the Replacement system to notify CPS of utility releases.
Electronic Recordation- E-File Secure	Bexar County system that they utilize for electronic recordation. The land development platting process will be using this in the near future.
Legistar/Granicus	This is a City Council Agenda builder that is currently being used. There is a proposed future expansion to include all DSD boards/commissions into this system. The new system will need to interface with this system to maximize communication and streamline the development process.

11.0 Appendix D – City Technology Standards

City of San Antonio Information Technology Environment Description

The City of San Antonio Information Technology Services Department (ITSD) will provide computing and infrastructure services for the selected hardware and software solution in one or both of two datacenters that are currently in operation. The two datacenters are interconnected by redundant high-speed Dense Wavelength Division Multiplexing (DWDM) links with servers and storage hosted in both environments. ITSD will manage the Data Center Layer, Networking Layer, Device Layer, Operating System Layer, and Application Infrastructure Layer for the information technology components of the proposed System in accordance with a SLA to be jointly developed by ITSD, the system provider, and the business owner of the System. Management of the Application Layer (business logic) will be determined by SLA.

To the extent that information technology equipment necessary to support the System must be deployed outside of the City's managed datacenter environment, the respondent must include in their response the scope necessary to provide appropriate environmental and compliance controls for the proposed System.

THE REST OF THIS PAGE WAS INTENTIONALLY LEFT BLANK

Information Management

***S=Standard Product(s), P=Preferred Product(s), G=Guidance Info Only.**

If the Information Technology Standards & Guidelines does not address a specific technical area, the user should seek guidance from the Director, Information Technology.

	Policy or Product	S/P/G *	Remarks
Information Management:			
Directory Services	Microsoft Server 2008 Active Directory	S	The City is currently evaluating LDAP-based alternatives
Enterprise Backup	Symantec NetBackup 7.x	S	The City does not utilize tape media for backups The City uses a disk based backup solution for all backup operations.
Relational Database Management Systems	Oracle 11.2.x MS SQLServer 2008	P S	Enterprise and large-scale systems with high capacity, complex design and/or high volume transactional requirements
	Oracle 11.2.x MS SQLServer 2008	G	Mid-scale systems with moderate capacity and/or transactional volume requirements
Database Access	SQL*Plus OCI-compliant client	S G	
	ODBC	G	
File Formats	IT guidance	G	Follow IT guidance for recommended file extensions
Data Administration Implementation	IT guidance	G	IT is currently evaluating the use of tools in this area
Data Warehousing and Mining	SAP BI 7.01 / NW 7.01 (EHP1) non-unicode / SP14	S	For SAP-based data
Messaging	Microsoft Exchange 2007 SP3	S	
Presentation and Interface Standards			
• Application Standard Interfaces	Web Services .Net 3.5 Web Applications .Net 4.0 or higher API	P P G	Follow IT guidance
• Mobile Devices		G	

Information Distribution

***S=Standard Product(s), P=Preferred Product(s), G=Guidance Information Only**

If the Information Technology Standards and Guidelines policy does not address a specific technical area, the user should seek guidance from the Director, Information Technology.

	Policy or Product	S/P/G *	Remarks
E-Mail with Attachments			
<ul style="list-style-type: none"> • SMTP 	MS Exchange with outbound SMTP	S	See IT for guidance
<ul style="list-style-type: none"> • ActiveSync 	Supported with “smartphones” BlackBerry Enterprise Server 4.0	S,P	
File Transfer Service			
<ul style="list-style-type: none"> • HTTPS • SFTP 	SFTP Client (Core FTP LE 2.1 or higher)	S S	

Applications

***S=Standard Product(s), P=Preferred Product(s), G=Guidance Information Only**

If the Information Technology Standards and Guidelines policy does not address a specific technical area, the user should seek guidance from the Director, Information Technology.

	Policy or Product	S/P/G *	Remarks
Enterprise Resource Planning	SAP ECC6 / EHP4 / NW 7.01 (EHP1) non-unicode / SP14	S	<ul style="list-style-type: none"> Production implementation date was April 2004. ECC6 upgrade completed April 2009. SAP Enterprise Portal completed 2010 <p>Core modules include: HR FI MM SD PS PM GM</p> <p>The application is accessible from any site or client VPN within the corporate network</p> <p>Current access methods include: client server run-time objects, Citrix, and SAP Enterprise Portal.</p>
Procurement	SAP SRM 7.0 / NW 7.01 (EHP1) unicode / SP14	S	<p>SAP Enterprise Portal completed 2010</p> <p>Current access methods include: client server run-time objects, Citrix, and SAP Enterprise Portal.</p>
Document Management	FileNet P8 v4.5.x	S	The City has plans to upgrade to v5.1 in 2014
Cooperative Work Applications	<ul style="list-style-type: none"> Collaborative Processing (internal use only) Workflow External File Sharing 	<p>MS Exchange 2007 MS SharePoint 2003</p> <p>SAP IBM FileNet</p> <p>Globalscape EFT Server</p>	<p>S</p> <p>G G</p> <p>S</p> <p>See IT for guidance</p>
Content Management	FileNet P8 v4.5.x	G	See IT for guidance
Web Server	IIS 7.0	S	
Web Content Management	DotNetNuke Enterprise Edition 7.0.x	S	

Applications: Continued

	Policy or Product	S/P/G *	Remarks
Web Portal	Citrix XenApp 5.0 DotNetNuke Enterprise Edition 7.0.x	P,G G	See IT for guidance
Office Automation	MS Office 2007 MS Internet Explorer 8.x - 9 Firefox 15.x (or higher) Safari 6.x (or higher) Chrome 22.x (or higher) MS Outlook 2007 Adobe Reader 10.x MS Project 2007 MS Visio 2007 Std.	S S S,G S,G S,G S S G G	Excludes MS Access See IT for guidance on “extensions” See IT for guidance
GIS Mapping	ESRI ArcGIS Desktop v10.x ESRI ArcGIS Server v10.x ESRI ArcSDE v9.3.x	S S S	Using Windows OS Using IIS with SSL if external Using MS SQL Server
GIS Web Development	MS Visual Studio 2012 MS Silverlight	S S	
Web Development Tools	MS Visual Studio 2012 MS Visual Studio 2008	S G	Follow IT guidance in extending legacy systems to the Web and Service-Oriented Architecture
Digital Signature	Pending	G	
Application Development Tools	MS Visual Studio 2012 Netweaver 7.x PL SQL	S S S	Follow IT guidance for configuration
Application Integration	Web Services Netweaver XI 7.11 SP12	S G	Follow IT guidance
Report Writers	Business Objects 3.1 Crystal Reports 2008 Xcelsius Dashboards	S G G	Follow IT guidance for data integrity and access

Computing Resources

***S=Standard Product(s), P=Preferred Product(s), G=Guidance Information Only** If the Information Technology Standards and Guidelines policy does not address a specific technical area; the user should seek guidance from the Director, Information Technology.

	Policy or Product	S/P/G *	Remarks
Workstation			
• Tier 1	2.5GHz Intel Core i5	S	In general, current IT standards provide a minimum baseline. IT will provision best value desktops that efficiently support the Refresh Policy. For specialized requirements seek IT guidance
• Tier 2	Two 2.5GHz Intel Core i7	P	
• Tier 3		G	
Bus Standards	PCI	G	
Memory (RAM) Standards (EDO, SDRAM, DRAM)			
• Tier 1	4GB	S	In general, current IT standards provide a minimum baseline. IT will provision best value desktops that efficiently support the Refresh Policy. For specialized requirements seek IT guidance
• Tier 2	6GB	P	
• Tier 3	8GB (or higher)	G	
Server Hardware Configuration	SUN SPARC64 VI UltraSPARC T1 AMD Opteron Intel Xeon	P S	Solaris Database Server: M5000 Solaris Application Server: M4000, Blade 6000 Windows: 8 core Xeon E5-2665 (or higher) Processor, 20MB Cache, 2.40GHz (or higher), 1600 MHz FSB Virtual Hosts: Cisco UCS w/B-Series Blade Servers
Virtual Server Environment	VMWare Vsphere 5.1	S	The City uses a virtualization first approach when provisioning servers.
Mainframe Environment	IBM z890 z/OS 1.10 Software AG Natural 4.2.4 Software AG Adabas 8.1.4	G	The IBM z-series mainframe platform is being twilighted by the City
Disk Storage	FC SAN (HDS, Cisco) iSCSI (HDS, Nimble) NTFS ZFS CIFS/SMB (HDS\BlueArc)	S S S S S	IT guidance for application specific requirements
Workstation Operating Systems	Windows 7 SP1 Mac OSX 10.x	S G	

Computing Resources: Continued

	Policy or Product	S/P/G *	Remarks
Server Operating Systems • General File & Print Servers • Application Servers • Database Servers	Windows Server 2008 EE Windows Server 2008 Windows Server 2008 R2 Windows Server 2008 EE Solaris 10 Zones Solaris 10 Windows Server 2008 EE Solaris 10	S S P G S G S P	Follow IT guidance
Telephony • IVR • VoIP • ACD	Cisco Unified Communications Manager 9.1.x Cisco Cisco	P S S	