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I Introduction

This is the FY 2015 - 2017 update to the City of Cape Coral Information Technology Plan. For the first time since FY 2008, capital appropriations have been budgeted for IT projects. This provisioning was contingent on court validation of the new Fire Service Assessment (FSA) which was obtained on May 7, 2015.

The FY 2015 Adopted ITS budget of $5.8MM is augmented by 51% from the Amended FY 2014 Budget of $3.9MM because of the inclusion of $1.7MM of IT capital appropriation. The Key Projects described in this document are in most cases heavily dependent on the new capital provisioning.
II Organization and Governance

II.i Organization

The ITS Department consists of three Divisions: Business Applications, Network & Telecom Infrastructure, and GIS Services – see Organizational Chart below.

Business Applications is responsible for supporting all of the application software packages deployed in the City. Our policy is to use commercial off the shelf (COTS) applications and develop software only when compelling cost reasons exist and/or there is a niche requirement where COTS is not available.

Custom applications are routinely developed to provide e-Government capabilities drawing on data stored in multiple databases.
Network & Telecom Infrastructure is responsible for planning, integrating and maintaining all technology systems and infrastructure in the City of Cape Coral. These include the Wide Area Networks (WAN), Local Area Networks (LAN), Data Centers, Servers, Network Systems, Telecommunications and Network Security, as well as various services and applications associated with these.

GIS Services is responsible for developing and maintaining the enterprise GIS implementation within the City utilizing the ESRI ArcGIS products. The enterprise GIS is centralized in terms of server infrastructure and support. Various user departments are responsible for maintenance of their own specific layers on the centralized database and have staff trained on GIS technology. The central GIS Services group within ITS will perform the more complex mapping and data analysis tasks as well as handling public record requests and assisting those departments without GIS trained staff. GIS Services publish a separate multi-year GIS Strategic Plan document which is available on the City website.

II.ii Governance

Effective IT governance helps ensure that the IT organization supports business goals, optimizes business investment in IT, and appropriately manages IT related risks and opportunities. Value, risk, and control constitute the core of IT governance. Effective IT governance enables the enterprise to take full advantage of its information, thereby maximizing benefits and capitalizing on opportunities.

In order to strengthen our IT governance, ITS has constructed a comprehensive set of IT policies, procedures, and documents supporting the COBIT® (Control Objectives for Information and Related Technology) Version 4 framework. This effort began in FY 2009 and continues. See section VI.ii below. COBIT® is the best practice IT governance framework published by the IT Governance Institute (ITGI.)

IT Steering Group

The IT Steering Group consists of the ITS Director and a select group of other senior managers from the customer departments. This group functions under the guidance of a written charter to provide overall City wide governance over IT. The Steering Group assembles annually to approve the annual IT Strategic Plan and quarterly to review status. It may also be convened on an ad-hoc basis throughout the year to determine the best solution or recommendation regarding key IT issues or decisions impacting the City as a whole.
III  ITS Mission Statement

The Information Technology Services Department seeks to deliver innovative and high value added information technology solutions to provide City staff, citizens, and the business community with needed information and services in the most timely and efficient manner possible.
IV Strategic IT Priorities

IV.i Aligning IT to the Business

The City develops a rolling three-year Strategic Plan to document the Council’s strategic priorities. The City Strategic Plan is a key input to the City Manager’s Budget which also is developed on a three-year rolling basis. The City Strategic Plan is made available to the public in the Open Government section of the website.

The City Strategic Plan provides input to the Information Technology Plan in terms of direct Council priorities where ITS could be the lead or secondary supporting department. The overall Information Technology Plan currently has designated four high level strategic IT priorities of Open Government/E-Government; Business Productivity Improvement via Technology; Mobile Application Deployment; and IT Infrastructure Capacity, Resiliency, and Security. The direct Council priorities fit under one or more of the strategic IT priorities as documented below. However as part of the strategic IT planning process additional projects will be designated by ITS that support the overall needs and direction of the City. In most cases the ITS priorities support key customer departmental priorities. The ITS staff works with each department to look for opportunities to provide technology solutions that add significant value to the business.

Typically projects identified for the Business Applications and GIS Services divisions will directly support customer departments. The Network & Telecom division’s priorities may indirectly support customers for example by adding capacity, resiliency, and security to the infrastructure supporting their applications. In building the ITS priorities full regard is taken to ensure that the projects comply with developing IT architectural and technical standards and policies.

As the year progresses, the plan, priorities, and project list may be fine tuned. Indeed, some new customer requirements may surface during the course of the year and we typically provide budgetary provision for this eventuality.
Aligning IT to the Business

Council Strategic Priorities

City Manager & Staff Develop Programs & Priorities
Update the rolling 3 Year City Strategic Plan document

Develop ITS Programs & Priorities & Roadmap for the Year
Update ITS Strategic Plan, IT Enterprise Architecture,
Technology Infrastructure Plan

Fine Tune/Amend/Adjust ITS Programs & Priorities
Execute Plan

Duplicate

IT Service Management & Service Delivery (ITIL)

Request for Service (RFS)

New Departmental Requirements

Departmental Coordination Meetings

IT Director

IT Architecture
IT Standards
IT Policies
COBIT Framework

Program Management

IT Service Management & Service Delivery (ITIL)

Annual Planning
& Budget Cycle

Continuous –
within the year

ITS
Processes/Standards
Additionally routine Requests for Service – e.g. for report customizations arise throughout the year and these must be handled effectively. The larger projects will require formal Project Management – see Section VII - and all requests must be delivered effectively complying with our developing ITIL compliant Service Management procedures.

IV.ii Key Strategic IT Initiatives

The following four areas have been identified as strategic ITS priorities:

- **Open Government and E-Government**

These initiatives are designed to enable residents, businesses and the public at large to obtain needed information and transact on-line with the City.

Open Government is a major component for enhancing transparency and we have a separate landing page on the website. This allows the public to view and download various financial reports and additionally has two interactive custom applications that allow the public to research and drill down through departmental Expenditures and employee Salaries. The landing page also links to the Munetrix municipal benchmarking application. This feature was implemented in 2014 and uses data obtained from the State to display performance metrics for Cape Coral. Several key metrics can be compared with equivalent data for municipalities in SW Florida and for a selected subset of equivalent sized municipalities across the state. This enables residents to view the comparative cost of their local government compared to other locations. Cape Coral was the first City in Florida to deploy Munetrix.

E-Government has been a major IT priority for several years. The following table provides a partial listing of the features that are provided on-line:

<table>
<thead>
<tr>
<th>On-line Capability</th>
<th>Enabling software</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Open Government area</td>
<td>Internally developed</td>
<td>Includes combination of static and interactive financial reports. Interactive queries include drill-downs on Expenditures and Employee Salaries. The Munetrix municipal benchmarking system was added in FY 2014.</td>
</tr>
<tr>
<td>Electronic permit/project application &amp; document submittals</td>
<td>CRW eTRAKiT3 (FY 2014)</td>
<td>Secured account with pin number. Full submission including drawings.</td>
</tr>
<tr>
<td>Utility (Water) bill payments</td>
<td>AMX Utiligy (embedded within JDE architecture)</td>
<td>Via secured account set-up</td>
</tr>
<tr>
<td>Business Tax Receipt renewal</td>
<td>CRW eTRAKiT i.e. Business License renewal</td>
<td></td>
</tr>
<tr>
<td>Citizens’ Action Center –</td>
<td>CRW eTRAKiT</td>
<td>Via Account set up or</td>
</tr>
<tr>
<td>Service Description</td>
<td>System</td>
<td>Notes</td>
</tr>
<tr>
<td>---------------------</td>
<td>--------</td>
<td>-------</td>
</tr>
<tr>
<td>Submit/Track Requests for Service</td>
<td></td>
<td>anonymous. Enter requests, View status.</td>
</tr>
<tr>
<td>View Permits, Projects, Code Enforcement Cases, Parcel info</td>
<td>CRW eTRAKiT</td>
<td>General Public &amp; Contractors</td>
</tr>
<tr>
<td>Schedule Permit Inspections</td>
<td>CRW eTRAKiT</td>
<td>Contractor activity</td>
</tr>
<tr>
<td>Common e-payment vehicle</td>
<td>Active Government interfacing with CRW TRAKiT and AMX Utility</td>
<td>Payment for Licenses, permits, utilities, etc.</td>
</tr>
<tr>
<td>Apply for Building Permit/View Status</td>
<td>CRW eTRAKiT</td>
<td></td>
</tr>
<tr>
<td>Code Enforcement Lien status</td>
<td>CRW eTRAKiT</td>
<td></td>
</tr>
<tr>
<td>Council &amp; (other public meeting) Agendas, Minutes, and archived Videos</td>
<td>NovusAGENDA</td>
<td>Videos are indexed by the Agendas.</td>
</tr>
<tr>
<td>Interactive access to GIS</td>
<td>ESRI ArcGIS, ArcGIS Server, Freance</td>
<td>Most layers made public</td>
</tr>
<tr>
<td>Police P2C – Police to Community interactive system</td>
<td>SunGard OSSI</td>
<td></td>
</tr>
<tr>
<td>Fully searchable Document Archive</td>
<td>Hyland OnBase ECM</td>
<td></td>
</tr>
<tr>
<td>Online Auction</td>
<td>Via GovDeals® online service</td>
<td></td>
</tr>
<tr>
<td>Online RFPs</td>
<td>Onvia Demand Star service</td>
<td></td>
</tr>
<tr>
<td>Online Job Postings &amp; Applications</td>
<td>NeoGov – externally hosted</td>
<td></td>
</tr>
<tr>
<td>Connect Cape Coral</td>
<td>Internally developed</td>
<td>Business directory utilizing NAICS classification</td>
</tr>
<tr>
<td>Online Garage Sale Permits</td>
<td>Internally developed</td>
<td>Apply online and print permit at home</td>
</tr>
<tr>
<td>Online Burglar Alarm registration</td>
<td>Cry Wolf</td>
<td></td>
</tr>
<tr>
<td>Various forms and static maps</td>
<td>Internally developed</td>
<td></td>
</tr>
<tr>
<td>FEMA flood Elevation Certificates</td>
<td>Internal, Hyland OnBase</td>
<td></td>
</tr>
<tr>
<td>Commercial Permit Cost Estimator</td>
<td>Internally developed</td>
<td>Allows contractors and the public to obtain permit cost estimates interactively</td>
</tr>
<tr>
<td>Residential Permit Cost Estimator</td>
<td>Internally developed</td>
<td>Allows contractors and the public to obtain permit cost estimates interactively</td>
</tr>
<tr>
<td>Web Payoff Application</td>
<td>Internally developed</td>
<td>Allows the financial &amp; real estate community to request payoff information for addresses online</td>
</tr>
</tbody>
</table>

The Electronic Permitting (i.e. electronic permit application with document submission) project is a major multi-year priority. Work began in FY 2014 utilizing CRW eTRAKiT. In the first quarter of FY 2015 the totally automated “Apply-Pay-Print” capability for the high volume Trade permits was introduced which allows authorized contractors to obtain this type of permit in a fully automated fashion without having to visit City Hall.
• Business Productivity Improvement via IT
  o Via new application system deployments & upgrades
    The core ERP systems were totally overhauled in 2009 and 2010 with the implementation of the JD Edwards Financial ERP and CRW TRAKiT for Community Services. The Faster Fleet Management and GasBoy Islander Fuel Management system implementations were completed in FY 2014. In the first quarter of FY 2015 we completed the migration of the Document Management System from Sire Technologies to Hyland OnBase. In parallel the public meeting management system was migrated to the cloud based NovusAGENDA system. These new systems bring improved business processes and enhance operational controls.
  o Via custom development and electronic workflow
    There are significant opportunities for improving productivity by custom development of electronic workflow and various niche databases, and also by creative configuration and integration of various commercial applications. Progress is documented in the Key Projects section below. The enabling technology for our own internal development is web front end via ASP.NET and ADO.NET with Microsoft SQL for the back-end databases.

• Mobile Application Deployment
  Mobile applications (apps) are becoming more and more prevalent each year and we will seek opportunities to obtain value by extending mobile app capabilities to both the public and internal users. In migrating to the Revize hosted City website solution we made sure that the new site was built to render properly on smartphones and other mobile devices. The CRW MobilePDA capability was purchased and implemented in FY 2014 to provide registered contractors the capability for scheduling permit inspections via smartphone. In FY 2015 we will be implementing the new CRW CivicTRAK citizen app for residents and providing more mobile applications for City field staff.

• IT Infrastructure Capacity, Resiliency and Security
  The IT infrastructure plays a central role in supporting the strategic applications. A multi-year program is in place to ensure capacity, resiliency, and security for both the windows server environment and the wired and wireless network infrastructures in a cost effective manner. Cloud infrastructure options are now included as a primary option for evaluation along with internally hosted ones.

  Key elements of our approach are as follows:

  **Capacity:**
  Storage: Storage Array Network (SAN)
  Server processing power: Virtualization
  Network capacity: dark fiber, Metro Ethernet, Single/Multi-mode fiber,
Wireless

**Resiliency & Availability:**
Systems: failover, replication  
Network: redundancy  
Data: local and hosted solutions

**Security:**  
Firewall upgrades  
URL filtering  
SPAM filtering  
Traffic monitoring  
Network segmentation where appropriate

### IV.iii Application Deployment across City Departments
The City deploys Information Technology comprehensively across the entire organization. Strategic value provided by IT benefits the entire organization. Departments rely on IT to support their fundamental business processes and E-Government is a key component of the technology deployed to provide information and services to the public.

**Major Application deployment**
The following are the key enterprise class COTS applications currently deployed:

**Oracle/JD Edwards EnterpriseOne Financial ERP:**
- General Ledger  
- Receivables, Payables  
- Procurement  
- Project Costing  
- Inventory Management  
- Fleet Management  
- Work Orders  
- Budgeting (to be replaced by Hyperion Public Sector Planning & Budgeting)

**Active Network (scheduled for replacement by FY 2016/17):**
- Cashiering  
- Payment Management

**Denovo Utiligy:**
- Utility Billing

**CRW TRAKiT Community Development system:**
- Land Management (LandTRAK)  
- Building Permits (PermitTRAK)  
- Projects (ProjectTRAK)
- Code Enforcement (CodeTRAK)
- Business Tax Receipts (LicenseTRAK)
- Contractor Management (AEC TRAK)
- Citizen Request Management (CRM TRAK)
- E-government applications for the public (eTRAKiT)
- Electronic Permit Application & Document Upload (implemented FY 2014)

**Bluebeam Revu:**
- Electronic plan review (implemented in early FY 2015)

**Kronos Workforce Central HRIS/Payroll/TimeKeeper:**
- Integrated Human Resource & Payroll & Time/Attendance system

**Hyland OnBase Enterprise Content Management (FY 2015):**
- Replaced Sire Technologies DMS in early FY 2015
- High speed indexed document scanning & imaging
- Document archive management and searching

**Novusolutions NovusAGENDA (FY 2015):**
- Replaced Sire Agenda product in early FY 2015
- Full featured Public Meeting Agenda Management, minutes taking, and archived video recordings indexed by the Agenda

**Faster Fleet Management & GasBoy Islander Fuel Management (Implemented in FY 2014):**
Comprehensive Fleet and Fuel management

**SunGard Public Sector – OSSI Public Safety application:**
- Computer Assisted Dispatch
- Records Management
- MCT – field wireless operation

**Vermont Systems Rec Trac application:**
- Specialized application for supporting Parks and Recreation activities including event scheduling and point of sale transactions

**ESRI ArcGIS Geographical Information System:**
- Enterprise GIS utilizing server based SDE
- ArcGIS Server for interactive web presentation
- Freemance partner product for developing web applications
- Cartegraph partner product for Traffic applications

**Cloud/SaaS Applications**
With the increasing availability of cost effective and resilient Cloud/SaaS applications, it is our policy that these options must always be thoroughly evaluated when seeking new
application capabilities. The City website was transitioned in FY 2014 to a hosted solution by Revise Systems. In addition, the following web-based applications are provided remotely by an external provider where City users access the application via the web and utilize a web browser as the client.

- The NeoGov solution for public sector workforce management is utilized by the Human Resource department for Applicant Tracking
- The Symantec Enterprise Vault for e-mail searches
- The NovusAgenda is deployed for managing agendas, minutes, and archived recordings for public meetings
- The BenTek benefit management system
- The Onvia DemandStar online service is used to manage the procurement RFP/bid submittal process.
- The GovDeals® online service is used for online auctions of surplus City equipment.
- Box.com for routine, non confidential document sharing across all departments.
- In FY 2016 we will transition to the cloud based Microsoft Office 365 suite.

Internally developed E-Government Capabilities

- **Web Payoff Applications:** New capability developed in FY 2014 supporting the financial and real estate community.
- **Connect Cape Coral:** This is a web-accessed SQL database that is constructed from Business licensing and Occupancy data stored within the Community Development application. Built at the request of the Economic Development office, it categorizes all place and home based businesses within the City by the NAICS classification scheme. A web based interface allows the public to query the database to search for businesses by category and to map the location using internal Google mapping capability.
- **Garage Sale Permits:** This web based interactive system allows residents to register and apply for Garage Sale permits on-line and to print the permit at home. The system contains logic supporting the enabling ordinance regarding frequency of permits by address.
- **“Mash-up” extensions to web GIS queries:** several high value capabilities have been added to online GIS queries. These take data from the Community Development and Financial systems and present them as a component of GIS property address querying. Included are assessment payoff information and other financial data of significant use to the financial & real estate community within the City.
- **Miscellaneous Archive Searches:** We have enabled extensive document searches within our archive and have explicit links to certain documents of broad interest to residents including Flood Elevation Certificates.
- **Online Vendor Registration System:** Allows prospective vendors to self register.
- **Online Utility customer application (FY 2015)**
Internally developed Web-enabled databases

- **Energy Efficiency Reporting System:** This is a web accessed SQL database designed to track energy consumption and savings on a Citywide basis.
- **Special Assessments System:** This is a web accessed SQL database designed to track the status of special assessments associated with the City’s UEP (Utility Expansion Program.)
- **Counter Registration System for Community Services:** Allows for first-come, first-served queue control for the public seeking service at the Community Services counter.

Systems supporting IT Infrastructure and Operations Management

- **BMC FootPrints:** Used as the key application supporting the ITIL best practice initiative for Service Management/Service-Help Desk.

Messaging (E-mail)

- **Microsoft Exchange Server & Outlook client**
- **Symantec Enterprise Vault:** Stores all incoming and outgoing e-mails. Provides powerful searching to facilitate public records requests. Also provides a separate searching archiving system for employee e-mail folders allowing mail history to be routinely archived from the Exchange server to save storage space. In FY 2011 this capability was transitioned from internal hosting to the cloud.
V Key Projects

V.i FY 2014 Key Project Accomplishments:
Note: Projects directly supporting FY 2013-2015 City of Cape Coral Strategic Plan Initiative 4.2 “Provide an open government, accountability, and transparency to increase public trust and understanding” are explicitly highlighted below.

Business Applications

Community Service Related

Enhancements to the CRW TRAKiT Community Development System:

Community Service Projects tied directly to City Strategic Plan Initiative 4.2:

- **Implementation of CRW eTRAKiT 3:**
  This is the new web based portal for the CRW Community Development system and was implemented in the first quarter and is the foundation for our Electronic Permitting project discussed below.

- **Implementation of electronic permitting:**
  This is a multiphase program employing features provided by the latest CRW eTrakit 3 Permitting system and the Sire Active Review products: In FY 2014 we concentrated our efforts on electronic permit submission via CRE eTRAKit 3. In FY 2015 we will extend the process to the Sire Active Review product to handle electronic plan review.
  
  **Phase 1: Basic Pdf form electronic submission for Trade Permits.** This went live in April allowing Trade contractors to submit electronic permit applications which are then manually updated into CRW by DCD. The process is fully electronic for the applicant. This process was essentially deactivated at the end of August following the transition to Phase 2 Online Permitting discussed below, .

  **Phase 2: Basic Electronic Permit submission via eTrakit3 – No Plan Review.** This is true electronic permitting where the applicant submits the application online into our Permitting system and uploads required documents. This phase covers those permits that do not require plan review. This phase went live in late July.

  **Phase 3: Fully automated “Apply-Pay-Print” Trade Permits via eTRAKiT3.** This is the “ultimate” in electronic permit submission technology where the applicant is allowed to apply for, pay for, and receive the permit in real time. This is currently restricted to Trade Permits not requiring any document review by Community Development. It went live with the first three Trade Permit types in early August. This is ‘state of the art’ technology which required extensive custom code to evaluate exceptions and restrictions to block automatic issuance under certain well defined conditions.

  **Phase 4: Electronic submission of Site Plan applications via CRW eTrakit3. Planned for September, 2014.**
- **Smartphone application for contractors**
  The new CRW MobilePDA application allowing contractors to view permit status and request permit inspections was made available to the local contractor community.

- **Citizen Action Center report for Council**
  Built a special report for Council members to track issues submitted by them on behalf of residents

- **Security fix for Contractors**
  CRW provided a City requested customization migrating contractor logins from Pin numbers to true usercode/passwords.

**Community Services Priorities not directly related to the City Strategic Plan:**

- **Implementation of CRW CodeTRAK for Fire Inspectors:**
  Use of the CodeTRAK module was extended to the Fire Department in the first quarter to control the Fire Inspection process. An automated interface was subsequently implemented to handle the billing process.

- **Implementation of the CRW Splits & Combines module:**
  CRW developed a custom electronic workflow module based on City defined specifications to allow for control over the parcel splits and combines process. In order to maintain accuracy within the Land system, permits, projects, code cases, CRM issues, and business licenses must be correctly assigned to the revised parcel structure following split and combine activity. The new module was implemented in May 2014 and now ensures that all reassignments take place in a controlled fashion.

- **Auto-archive closed Permits to Sire DMS:** This is a significant time saver, as previously paper copies were scanned into the archive.

- **Custom Counter Registration Module:**
  Capability developed to control workflow at the Community Services counter and to reduce wait times. Implemented in pilot mode.
Financial Services Related

Financial Services Projects tied directly to City Strategic Plan Initiative 4.2:

- **Web Payoff Application for Customer Billing Services:**
  This is an internally developed capability allowing requestors (Title companies, banks, realtors, and attorneys) to request and receive payoff information completely online. CBS receives approximately 500 requests per week for payoff balances for abatement, lot mowing, special assessments, impact and CIAC loans, water bills, etc.
  The previous process involved receiving these requests via a faxed form. One dedicated staff member then researched all possible assessment, impact, utility bill and CIAC fees associated with the parcel and manually noted them on the form. The new online process has allowed CBS to reassign a previously dedicated staff member to other duties and eliminate the voluminous paper file archives. The new system thus provides significant cost savings and process efficiencies. It went live in July 2014.

- **Implementation of the custom online Vendor Registration module:**
  An internally developed capability to allow prospective vendors to self register and submit W9s went live in the first quarter.

Financial Services Priorities not directly related to the City Strategic Plan:

- **Active Network 7.1 PA-DSS Update:**
  This update went live in April and is an essential component of our PCI associated projects.

- **Special Assessment Support:**
  Developed special data extracts supporting the new Fire Service Assessment.

- **Custom Crystal Reports - Budgeting:**
  Several report enhanced were delivered to assist both City and Charter School Budget groups.

Human Resources/Payroll Related

- **Kronos-Telestaff integration:**
  The new Telestaff-Kronos integration to seamlessly link our Telestaff Public Safety scheduling system with the Kronos payroll system was implemented in September. At the same time, Telestaff was upgraded to the latest release.
• **Document Management Repository for the Fire Dept:**
  The Fire Department began utilizing the Sire DMS archive in June 2014.

**Other functional areas**

Projects tied directly to City Strategic Plan Initiative 4.2:

• **Externally Hosted City Website:**
  We transitioned from an internally hosted City website to a totally redesigned and externally hosted website by Revize Systems in late March 2014. The new site has a much more user friendly content management system.

• **Munetrix Municipal Benchmarking:**
  Munetrix went live in May 2014 to provide our residents with the ability to see how the City compares with other Florida agencies regarding key financial metrics.

• **Utility Extension Home Page & “What is My Utility Extension Area”:**
  A new Utilities Extension Home page was developed along with an interactive feature to allow residents to determine if they are located within an Utilities extension area along with estimated timing.

Projects not tied directly to City Strategic Plan Initiative 4.2:

• **GasBoy Islander Fuel System & Faster Fleet Management:**
  Implementation of GasBoy was completed in early FY 2014 and included integrations to the Faster Fleet Management system. A further step forward was taken in June with an update making the system AD compliant.

• **Custom Web Enabled SQL Databases for Surveyor:** Three custom web applications with associated databases were developed for the City Surveyor.

• **Simplification of the custom Garage Sale Permit application:**
  Rewritten in the first quarter to provide simple resident access.
Infrastructure & Communications Technology (ICT)

Disaster Recovery/Business Continuity:
Upgrade the replication technology to provide a more effective solution to critical Systems & Applications.
- Migrate to systems that support virtualization with cloud-based mechanisms for disaster recovery
- Prioritize based on annual review of Business Impact Assessments and Risk Reviews
  - ERP Systems (JDE) – FY2014
  - Community Development Programs (CRW) – FY2015
  - Payroll – FY2015
- Continues focus on Mobile infrastructure for anytime/anywhere access

Network/Security Upgrades:
Engaged IPS/IDS Monitoring
Setup PCI Segmentation Plan and Project Timeline (FY2015 Implementation)

Mobility:
Following the introduction of Windows 8 Tablets and Apple iPads, we will realize an increase in the use of the mobile workforce in Public Works, Public Safety and other mobile users. This will increase the efficiency of the users to access and use several city applications remotely.

Communications:
Increased the current use of Voice Over IP (VOIP) technology from the existing 55% to 65% in FY2014, replacing many of the existing PBX users with the newer devices and reducing maintenance costs. The existing PBX is End-Of-Life and not supported by the manufacturer, and was installed in 2000. Council & Citizens Action Center areas were addressed in FY 2014.

Infrastructure:
Continue to negotiate with the local carriers (CenturyLink and Comcast) to further reduce annual costs and increase bandwidth to city sites (Wide Area Network – WAN).
Savings realized in FY2014:
- Annual savings of $18,000 starting March 2014 from PRI Renewals (Local & Long distance Dialing)
- Credit of $6,600 from re-negotiations of Wide Area Network (WAN) lines to 4 City Sites
- Annual Savings of $9,800 starting 1st Quarter 2014 due to reduced costs and increased speed from WAN contract to the 4 City Sites mentioned above
- Increased Internet Bandwidth – Lee County Clerk of Courts (LCCoC) increased this speed by 100% (twice the bandwidth) without additional costs. LCCoC
completed their renewals with local carriers and will pass on these savings to connected clients (City of Cape Coral).

Public Wi-Fi:
Continue to add Public Wi-Fi at Parks locations in FY2014, based on site surveys that will be conducted with Parks personnel, and on availability of the carrier facilities.
Completed Sites:
- City Hall
- Yacht Club / Rotino Center
- Lake Kennedy / SunSplash
- Four Freedoms
- Art Studio
- Rotary Park
- Coral Oaks Golf Club

Geographic Information Systems (GIS)

ArcGIS 10.2 Upgrade:
Upgrade ArcGIS to version 10.2 Desktop and Server installations City wide including all Citrix users. ArcGIS 10.2.1 and Cartegraph 8.4a. This task was completed in June.

Freance Upgrade: Upgrade Freance to version 5.4.1.

2014 Aerials:
Loaded the new 2014 Aerials from Lee County into the Enterprise Geodatabase.

Utility Network Assessment:
In a partnership with ESRI and City staff, we will evaluate best mechanics for utilizing our Utility infrastructure at the City.

Cartegraph Application Assessment:
Evaluate the current Cartegraph processes and determine if it would be cost effective in changing the licensing / structure of Cartegraph at the City. The cloud version of Cartegraph will be evaluated as part of this process.

Interactive Map Development:
Development of various interactive web mapping applications for Fire Districts, Zoning, Future Landuse, and Parks. These applications display live data from the Cities GIS Geodatabase using ArcGIS Online and FLEX technology.
Cape Coral Bike-Ped Mapping Project:
Development of an interactive web application which displays Bike Routes, Park / Restroom data within the City of Cape Coral. This went live in May.

Street Lighting Study:
Performed analysis with bus stop data from Lee County, geo-coded data points to display spatially in GIS to aid in the understanding of which stops are within a specified distance from existing street lights. This study was completed in May.

Fire Hydrant Inspection iPAD App:
This project implements the usage of ArcGIS Collector which allows the Utilities Collection and Distribution fire hydrant flushing crew(s) to acquire / record inspection data in the GIS system in the field. This is an efficiency enhancement replacing the previous paper based reporting system. This project is currently in pilot implementation.
V.ii  Key Projects planned for FY 2015:
Note: Projects directly supporting FY 2015 -2017 City of Cape Coral Strategic Plan Initiative D.2 “Provide an open government, accountability, and transparency to increase public trust and understanding” are explicitly highlighted below.

Business Applications

Community Service Related

Projects tied directly to City Strategic Plan Initiative D.2:

- **Implementation of electronic permitting:**
  In FY 2015 the work begun in FY 2014 will be extended to include not only electronic submission via CRW eTRAKiT but also electronic document review via Blubeam Revu. A leading-edge project will be the configuration of a fully automated, online “Apply-Pay-Print” permit application process for the high volume, simpler types of Trade permits that don’t require document review. Authorized contractors will be able to apply for, pay for, and then print their permits without having to visit City Hall.

Financial Services Related

Projects tied directly to City Strategic Plan Initiative D.2:

- **Leverage the Munetrix Municipal Metrics and Benchmarking System:**
  This system was implemented in FY 2014 and allows residents to view how the City of Cape Coral compares to other municipalize of similar size across Florida and also to all neighboring Cities regarding key financial metrics. This feature relies on data provided by all Florida cities to the State – and is reliant on when the State makes the data available which can be more than a year after submitted. In FY 2015 we will develop electronic scripts to upload Cape Coral data on a quarterly basis to allow residents to see more recent trending data for the City. We also leverage the Dashboard capabilities within the system.

Projects not tied directly to City Strategic Plan Initiative D.2:

- **RFP to replace existing Point-of-Sale system:**
  Funds are budgeted to replace our existing Point of sale system which the vendor will not support beyond calendar 2017. The RFP will be issued in early FY 2015 with the goal of completing most of the implementation in FY 2016 as well.

- **NBS D-Fast 3 Upgrade:**
  NBS has rewritten their special assessments software to use the latest Visual Studio architecture and we will be upgrading during the fiscal year.
• Development of technology to support efficiencies within Customer Billing Services
  o Customer Web Sign-up for Utility Services with capability for uploading lease/closing docs:
  o Ability to route field service representatives and to allow them to update work order information in the field via iPad or tablet.
  o Custom workflow to feed faxes, online applications, and scanned over-the-counter documents into a workflow grid allowing supervisors to assign the work to specific employees.

• Implementation of the Hyperion Public Sector Planning & Budgeting software:
  This software is tentatively planned for implementation in FY 2015. The key constraint is availability of Budgeting staff.

• Statutory Overtime Cap:
  A customization/configuration will be developed with Kronos to automatically comply with the new State of Florida public sector requirements.

• Denovo Utiligy Utility Billing System Enhancements:
  • Implementation of the custom Land Management module
  • Importation of historical billing information from the legacy SunGard Public Sector system
  • Importation of historical liens from the legacy SunGard Public Sector system.

• Custom Assessments Database – Customer Billing Services:
  This capability is being built utilizing the CRW ProjectTRAK module and is scheduled for delivery in October.

• JDE related upgrades:
  The JDE Tools 9.1 upgrade will be implemented in FY 2015 along with an upgrade to the latest level of Oracle Middleware. An archiving solution will also be implemented for JD Edwards.

**Human Resources/Payroll Related**

• Kronos – Bentek integration:
  We have engaged with Kronos to implement an automated interface to our Bentek benefits system.
Implementation/Evaluation of new Application Systems

Projects tied directly to City Strategic Plan Initiative D.2:

- **Implementation of the CRW CivicTRAK Mobile Citizen App (City Strategic Plan Initiative Section D.2):**
  This will allow residents to download an app to their Smartphones to facilitate processing Requests for Service with the ability to upload photographs and provide GPS coordinates as well as easily access City information and newsfeeds. The system will integrate to our existing CRW CRMTRAK module which accepts Requests for Service received via phone or over the web.

- **Implementation of the NovusAGENDA Public Meeting Management System (City Strategic Plan Initiative Section D.2):**
  This is a Cloud based solution. We will migrate from our existing internally hosted Sire Agenda Management system. The new solution will provide online agendas and minutes, allow residents to view meetings via real-time streaming, and also provide historical video archives.

Projects not directly to City Strategic Plan Initiative D.2:

- **Migration of the Sire Document Management System (DMS) to Hyland OnBase:**
  The Sire suite of products was purchased by Hyland Software and was transitioned to Hyland OnBase in early FY 2015.

- **Evaluation and Implementation of Case Management application software for the City Attorney’s Office:**
  This will provide automation for a currently manual process.

- **Evaluation and Implementation of a Learning Management System (LMS) for Human Resources**

Other

- **Resident Boil Water Notification:**
  Configure the Selectron IVR system to interface with the GIS system to allow the Utilities department to select areas impacted by mains breaks and auto-notify residents via voice, text, and/or email regarding both boil water notification and...
rescission. This will be a significant cost saver as Utilities will no longer be required to post paper notices at residences.

- **Custom Fleet Appointment Scheduler:**
  Develop a web based capability to allow departments to schedule and reserve maintenance times for City owned vehicles.

- **Custom Real-Estate Property System:**
  Develop a mechanism to link specific properties designated by the Real Estate division to the enterprise GIS to allow supporting documents to be attached. This system will facilitate search and retrieval replacing a totally paper based system.

- **Legacy system deactivation – SunGard Public Sector:**
  FY 2014 a copy of the IBM iSeries based database was ported to Microsoft SQL. Work is underway to import data where appropriate into either CRW or JD Edwards. Where this is not feasible replacement programs are being written against the SQL database to replace iSeries screens still in use to access historical data. This work will complete in FY 2015 allowing us to deactivate the legacy iSeries platform.

**Infrastructure & Communications Technology (ICT)**

**Disaster Recovery / Business Continuity**
- Kronos Payroll to Data Replication System for Business Continuity
- Formal integration of IT DR-Business Continuity planning with City Continuity of Operations (COOP) Plan: The Fire Department will be contracting to have the City COOP rewritten in FY 2015 and this will include formally integrating the IT plan into the COOP.

**Network/Security Upgrade**
- Upgrade Data Center switches / routers
- Upgrade Firewall

**Systems & Storage**
Upgrade Servers to enable additional Data Center Consolidation and increase Green IT thru reductions in Power and Environmental usage (Cooling). This project will provide
- Reduced Storage Systems Footprint (physical space in data center)
- Increased and faster data throughput (new technology – disk drives)
- Increased efficiency (Hyperconverged Infrastructure – Memory, Storage, Processor and Network)
- Smart Faster Upgrades at lower cost (systems are modular – addition of 1 device increases Memory, Storage, Processor and Network)
Infrastructure

- Increase Public Safety Mobile Bandwidth (started negotiations with carriers and will complete project in 1st quarter FY2015)
- Migrate remaining city sites to Voice Over IP Telephones and remove the legacy PBX. This will provide the following:
  - Savings of over $5000 annually by consolidation the network and disconnecting legacy technology from carriers.
  - Increased efficiency and improved productivity by having one centralized communication system with current technology. IT will not need to support multiple systems, vendor contracts and can reduce storage costs.
- Internet – IT will be reviewing this bandwidth to further increase the speed due to the growth of online applications and customer service.
- Expand Cloud hosting solutions to include recovery for virtualized applications
- Initiate the Office 365 migration for all city users.
- Complete network segmentation for PCI

Geographic Information Systems (GIS)

Implement Replica Partnership with the Lee County Property Appraiser:
This project will allow the City of Cape Coral and the Lee County Property Appraiser to exchange GIS data in ESRI Replica. The Replica will pass changes only as compared to the current format of downloading the entire dataset(s).

JDE Work Order App for Customer Billing Services
This project will aid field staff to go paperless. Currently Field service reps are given paper work orders for daily tasks, this would allow the res to receive Work orders via a mobile device.

Main Break Application for Utilities Collection and Distribution
This project will allow staff and residents to view / lookup main break location and boil water notices.

Capital Improvement App
This project will allow staff and resident to view capital improvement project areas online.

Utility Valve Inspection app
This project will allow staff to inspect and report on utility network system valves.

GIS / Dfast 3 database Migration
This project will upgrade the database used for resident utility payoff requests.
V.iii  Key Projects planned for FY 2016 - 2017:
The following Projects are included in the capital provisioning for the current rolling three year budget:

**Business Applications**

Implementation of a new Point-of-Sale/Cashiering and Payment Gateway system. The RFP will be issued in FY 2015.

Upgrade the JD Edwards financial ERP to the latest release level.

Continuation of the Electronic Permitting project

Upgrade CRW to the latest TrakiT 9 version.

**Infrastructure & Communications Technology (ICT)**

CORE Network – Increase Backbone to 10G/100G

Replace Fiber Infrastructure in Public Works/Utilities Plants

Add Lake Kennedy/Sunsplash Water Park to Fiber Ring

Upgrade Wide Area Network Systems – WAN Firewalls

Upgrade Data Backup & Recovery to Disk Based with Encryption / Deduplication

Increase Virtualization to 95% of all Enterprise Systems

Implement new Security Posture for Self-Assessment and Active Monitoring

Upgrade Internet Pipe

Add Hyperconverged Systems to DR Site

Complete Office365 citywide

Extend Amazon AWS for Test & Dev Systems
VI  Best practice frameworks

VI.i The COBIT Best Practice Framework for IT Governance

COBIT® (Control Objectives for Information and related Technology) is the best practice framework for IT governance published by the IT Governance Institute (ITGI.) COBIT version 4.1 provides 210 control objectives applied to 34 high level IT processes categorized in four domains: Plan and Organize, Acquire and Implement, Deliver and Support, and Monitor and Evaluate. COBIT recommendations cover issues related to ensuring the effectiveness and value of IT along with information security and process governance.

During FY 2009 ITS performed a self assessment against the 34 high level processes and subsequently began the process of upgrading/developing documented processes in all four domains. The continuously updated set of policies, procedures, and documents along with the ITIL policies and procedures noted below constitutes our IT governance and control manual. The latest versions of all these documents are available to all employees via the intranet. They are categorized by COBIT domain.

VI.ii Service Management improvement via ITIL

ITS began implementation of a formal ITIL v2 program in late 2006 with most staff members certifying at the Foundation level. Beginning in FY 2015, staff will be certified to v3. The ITIL framework has been utilized to build Service Support procedures covering Change Management, Incident and Request Management. The BMC FootPrints suite has been deployed to fully support the program.

A decision was made in FY 2009 to emphasize the COBIT framework to guide the review and development of all other IT processes.

**Service Level Agreement (SLA) Development:** In conjunction with the development of the ITIL procedures, formal SLAs were developed, agreed to by the user base, and published on the SharePoint intranet.
VII  Project Management

Project Management – Major Projects
Formal Project Management techniques are employed for the implementation of major tasks including enterprise class application implementations and major infrastructure projects. The governing procedure is IT-PO10-01, Project Management - Major Projects. This procedure details the mechanics for adhering to the precepts included in the PMI publication “A Guide to the Project Management Body of Knowledge”, Third Edition also known as the PMBOK® Guide. Associated with this procedure are City forms and computerized toolsets to support the PMBOK methodology. In many cases an application vendor or implementation partner will have developed their own methodology which is compliant with PMBOK. The City will generally accede to utilizing these methodologies as they tie in closely to the vendor’s experience in implementing their particular application. Examples include the Kronos “Momentum” methodology deployed for the implementation of the Kronos Workforce Central HRIS/Payroll system and the AMX “Polaris” methodology for the implementation of JD Edwards EnterpriseOne. The City’s own methodology and toolsets were deployed for the implementation of the CRW TRAKiT system.

All these project management methodologies employ the following components:

- Assignment for roles:
  - Project Sponsor
  - Project Manager
  - Project team members with specific responsibilities including SMEs
  - Project stakeholders
- Project Charter
- Project Scope
- Execution Management
- Change control
- Detailed time/resource planning
- Cost management
- Quality control
- Communications
- Risk identification & management

Use is made of collaboration web sites and computerized toolsets including Microsoft Project and comprehensive workbooks detailing PMBOK components.

Project Management – Routine and Small Scale Projects
ITS frequently develops niche applications especially for the E-Government initiative. The applied man hours for these projects are limited – frequently being in the range of 40 – to 100 man hours. For these projects we utilize a lightweight Project Management approach. The governing procedure is IT-PO10-02 – Project Management- Routine and Small Scale Projects. The main control feature is the “ITS Project Form” which identifies:

- Project Sponsor
- Project Manager
- Project Developer(s)
- Project Description
- Summarized Purpose and Objectives
- Deliverables
- Date Required
- Benefits
- Out of pocket cost and FTE man hours required

This document is reviewed and approved by the appropriate ITS manager(s). A SharePoint area is used to track actions and optionally Microsoft Project may be used for a Gantt chart depending on scope.
VIII  IT Enterprise Architecture & Standards

The City’s approach to IT Enterprise Architecture is detailed within policy IT-PO3.1-01 which is available on the ITS Strategic Planning area on the City website: http://www.capecoral.net/department/information_technology_services/strategic_planning.php

The overall architecture structure is shown in the following table:

<table>
<thead>
<tr>
<th>City of Cape Coral IT Enterprise Architecture</th>
<th></th>
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</thead>
<tbody>
<tr>
<td><strong>Infrastructure</strong></td>
<td><strong>Application</strong></td>
</tr>
<tr>
<td>Network</td>
<td>Software</td>
</tr>
<tr>
<td>Platform</td>
<td>Data/Information</td>
</tr>
<tr>
<td>Security</td>
<td></td>
</tr>
</tbody>
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Plans for Infrastructure development are detailed in the annually updated “Technology Infrastructure Plan” – document IT-PO3.4.

VIII.i  Network Architecture

The City of Cape Coral IT environment resides on a Metropolitan Area Network (MAN) using optical fiber, leased lines and wireless infrastructure. The Public Safety (Fire and Police) network interlinks to the City network via optical fiber and is managed by routers and switches. The “remote” facilities with LANs consist of Public Works water plant/maintenance complexes; Parks and Recreation complexes; and the Fire Stations. Facilities located at the City Centrum including City Hall, the EOC/Fire Department Headquarters, City Complex building, and Police Headquarters are all fiber interlinked. Broadband cellular wireless using VPN/Citrix is used to provide field workers access to the central applications.

The Public Safety Network covers the Emergency Operations Center (EOC)/Fire Department HQ, the Police Headquarters building and an increasing number of Fire Stations – currently ten. The Fire Stations are on Metro-Ethernet 10Mb as the primary interconnect mechanism, except Fire Station 2 which is connected via Fiber – see below. A private broadband wireless cellular network provided by Verizon/CenturyLink is used to interlink Police and Fire vehicles with the Public Safety network.

Service for the “City” network – including all “remote” sites for business applications and e-mail - was transitioned in FY 2011 from the City Hall data center to the EOC data center. The Public Safety network applications are hosted via the EOC and Police data centers.

Internet connectivity is provided by a 150 Mbps connection.
The City deploys 802.11 wireless network segments based on standardized protocols in the larger facilities. Within the City Hall complex and several Parks & Recreational sites there is a separate public network available for the convenience of residents, visitors, and the press.

In terms of the Voice network, Cisco VoIP technology is deployed.

- **Data Communications:** The City’s data communication utilizes the TCP/IP protocol and is built on a 10Gb backbone connecting the three main data centers. LAN segments are connected using a combination of City owned optical fiber and CenturyLink supplied Metro-Ethernet circuits.

- **Wi-Fi:**
  - **Private 802.11b/g/n:** The City deploys a secure 802.11 system within the City Hall complex for employee use.
  - **Public Wi-Fi:** A separate public version is also used for the convenience of visitors, the public, and the press. This permits local newspapers to email their reports back to the newspaper office in real time when reporting public meetings. In FY2013 we added 5 Parks sites to this (Yacht Club, SunSplash, Rotary Park, Art Studio and Four Freedoms).

- **Voice Communications:** City voice communications was fully transitioned from the NEC PBX to Cisco VOIP in May 2015.
  In FY 2011, the City transitioned to a stipend reimbursement methodology for cellular phones/smart phones thereby eliminating the need for most City supplied devices.

- **Switching/Routing/Firewall environment:** The City deploys several leading technologies from Cisco, Juniper, etc.

- **Mobile Computing:** The City has rolled out Microsoft and Apple devices to maintain efficiency in mobile computing as well as to advance the plan to “go paperless” (City Council and City Clerk).

- **Cloud Technology:** In 2010 the city engaged BOX Cloud — [www.box.com] — as the Cloud vendor that will host non-confidential data externally, for a small subset of users. This has allowed the city to maintain the local storage as the Cloud Storage allowed for:
  - Unlimited Storage
  - Collaboration between and combination of Internal (city employees) and External (Non City Employees) users
  - Encryption while the data is in motion (file transfer) and while the data is at rest (storage)
  - Access from anywhere and at anytime
  - High Availability
  - Reduction in local file backup (annual savings of over $10K)

This is another leading technology that continues to increase efficiency and reduce costs.
Internet and Intranet Network Architecture

The Internet/Intranet architecture supports the City’s extensive E-Government deployment enabling residents and businesses to pay utility bills on-line, submit requests for service and complaints, renew licenses, search archives, view information and so on. Additionally the architecture supports web access for City employees.

- **Physical access to the web**: All City staff supplied with computers are allowed web access. Physical connectivity is provided via public carrier Metro Ethernet. The bandwidth may be readily augmented as required.

- **Server Infrastructure**
  - **Public Access Web server**: Transitioned to hosted external service in FY 2014. Various back-office e-commerce applications are hosted internally linked from the external site. This infrastructure provides extensive information for residents and the public at large and acts as the portal for web based E-Government services.
  - **Intranet Server**: Supports the City’s employees. The intranet is SharePoint based and hosts a wealth of information including City wide regulations, policies and procedures, address listings, departmental policies and procedures and action registers for departmental and cross-departmental projects.
  - **Application and Database Servers**: Certain servers are required to be securely accessed by web users to support various E-Government services such as utility bill payment, license renewal, archive searching, etc.

VIII.ii Platform Architecture

- **Application and Database Servers**: The City’s Financial and Community Services enterprise application transitioned to the Microsoft platform from the IBM i-Series platform in FY 2009, and still remains the current standard.

- **Network Servers**: Microsoft Active Directory is used to support the City’s LAN/WAN environment. A/D supports the directory services, authentication and authorization.

- **Systems**: The city migrated to the new Nutanix Platform for all Virtualized resources. This combines Storage, Processing, Memory and Networking in a very effective modular design called **Hyperconverged Infrastructure**.

- **Virtualization**: Extensive use is made of Virtualization technology to consolidate servers and reduce cost.

- **Desktop environment**: HP desktops and laptops are deployed as a standard throughout the City using Microsoft Windows 7 / 64bit. Panasonic Toughbook ruggedized laptops and Tablets are deployed for Public Safety (Fire & Police) officers working in the field and for other field workers including Code Enforcement officers and Building Inspectors.
VIII.iii  Software Architecture

Software architecture facilitates the selection and acquisition of commercial software and the design and development of niche applications to automate and maintain City processes and provide a foundation for interoperability, integration, collaboration, and communication. It also supports the economical and efficient provision of City information and services to residents. The policy at the City is to utilize Commercial Off the Shelf (COTS) applications wherever feasible. Internal development will be undertaken when only when dictated by cost concerns or when the requirement is not available commercially. Additionally, report generation will be undertaken when an application does not provide the specific report format needed “out-of-the-box.”

Business Application Software: Section IV.i above “Application Deployment across City Departments” describes the business application software currently in use across the City.

Personal Productivity Software: The Microsoft Office Suite of products is deployed as the baseline for personal productivity. Microsoft Project is the standard for Project/Gantt charts and Microsoft VISIO is the standard for flow charting.

Microsoft SharePoint 2007 is used for internal collaboration. The Enterprise version of Crystal Reports is the primary report writing package.

Programming Software: Microsoft Visual Studio is the City’s standard for the development environment.

Middleware: with the deployment of the JD Edwards package in FY 2009, Oracle middleware has become a standard.

Database Software: The standard is now Microsoft SQL.

Messaging Software: The City’s messaging infrastructure utilizes Microsoft Exchange server and Outlook clients. Outlook Web Access is provided for secure access for City employees to e-mail from home or when traveling.

Encrypted e-mail as an option was deployed in FY 2010 with the acquisition of a small subset of licenses, and is used only upon request or acknowledged requirement. This is to provide additional security for the transmission of any HIPAA related traffic. The vast majority of electronic messaging for Florida government agencies is subject to public record requests and encryption is not required.

Web Development Architecture:

- Migration to externally hosted website: In early FY 2014, the City migrated to an externally hosted website provider – Revize Software. Concurrent with this
change the content management system changed from the DotNetNuke (dnn) framework to the proprietary Revize Software tool.

VIII.iv Data/Information Architecture

Data/Information Architecture focuses on the process of modeling the information that is needed to support the business processes and functions of the City. Data/Information Architecture outcomes are expressed in the form of data models, information flows, and analysis of inputs/outputs for city processes. This provides a framework for business process re-engineering and the optimization of City processes.

Given the City’s application environment where commercial, off-the-shelf software provides the backbone applications that support City processes, the data architecture embedded within these systems provide the basis of the City’s overall Data and Information Architecture. From 2007 through 2009 the City replaced its legacy ERP system with best-of-breed solutions spanning Financial, Community Services, and Human Resource Management activities. These systems combine features of best business practice along with the flexibility for defining almost unlimited user defined fields. As a key component of the implementation of the Financial and Community Services ERPs, business processes were carefully reviewed and the systems configured to meet the optimized processes. Extensive use was made of user defined fields within the Community Services application to accommodate specialized needs and additionally some vendor built customizations were required. In the context of the City, data and information flow modeling comes into play as a component of IT support for the City’s Lean Government program where as part of the “kaizen” process it is required to generate Process Value Stream maps. Where information technology is either embedded in the process or its introduction can add value and/or eliminate waste, data modeling will typically be required.

The key applications defining the data/information architecture are:

- Financial ERP: JD Edwards EnterpriseOne
- Community Services: CRW TRAKiT
- Geographic Information System (GIS): ESRI ArcGIS
- HRIS/Payroll: Kronos Workforce Central
VIII.v Security Architecture

The City has an information security program in place to ensure confidentiality of information, the integrity of data, systems and operations. The security architecture must be resilient and provide effective controls over the public/private network infrastructure. Periodic external audits and reviews are performed by qualified security experts to provide guidance on areas for development and enhancement. Security constraints apply to both the wired and wireless environments. Network authentication to the Microsoft Active Directory is an integral part of the security architecture.

A comprehensive set of security related Policies and Procedures are maintained, many of which are posted on the ITS section of the City’s SharePoint intranet:

The Information Security Policy is provided to software application vendors as a routine part of our requirements to ensure that they can comply with defined standards.

External Security Audits: Audits addressing various aspects of the security infrastructure are commissioned routinely by both ITS and Internal Audit to assure the security infrastructure is robust and to identify potential areas for improvement.

VIII.vi City of Cape Coral Information Technology Standards

The City’s Information Standards are available at the following address:

http://www.capecoral.net/department/information_technology_services/standards.php

IX IT related awards & recognition

The City was awarded 2nd place nationwide in the 2012 Center for Digital Government’s Digital Cities Survey for Cities in the 125,000 – 250,000 population category. The City came in 6th place in 2009 and 8th place in 2008.

The City received the “Transformation Award” from the SW Florida Regional Technology Partnership in May 2009.