INFORMATION TECHNOLOGY STRATEGIC PLAN

Aligning with departments to enhance citizen services

September 30, 2008

The City of Riverside Has Become a High Technology City

2007

Digital Cities Survey recognizes cities that are using technology to create a seamless environment between local government and constituents.

2008/2009

The Center for Digital Government Best of the Web is an annual awards program that recognizes the most innovative, user-friendly state and local government portals.

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Section 1 – Executive Summary

INTRODUCTION

Technology is playing an ever-increasing role in helping the City of Riverside deliver services. It is enabling increased productivity, around the clock operation, and improved relationships with residents, businesses, organizations and visitors.

One of the primary roles of the Information Technology (IT) Department is to guide the use of technology for the City. IT listens to the business and operational needs of departments and makes recommendations that fit into a common framework that will benefit the whole.

The City vision is to be the economic and cultural center of the Inland Empire. To do this City leaders are investing $1.8 billion to modernize Riverside. They realize and are communicating that to achieve their vision the City must leverage technology everywhere. In 2004, the City sponsored a high technology task force of Riverside's business and community leaders to help identify actions the City could take to attract businesses and professionals to Riverside.

The taskforce recommended eight actions and emphasized the importance of the City setting an example in its use of technology and becoming the high technology center of this region. As a result of the taskforce, the City hired its first Chief Information Officer (CIO). The CIO has embarked on nine initiatives to create a modern Information Technology (IT) environment and align IT with City departments to enhance citizen services, create a "24-hour City Hall", and pursue City goals.

This IT Strategic Plan outlines how IT will align with City Departments to help achieve City goals and deliver services for the Riverside community.

Top Row (Left to Right)

Steve Adams (Ward 7)
Mike Gardner (Ward 1)
Chris Mac Arthur (Ward 5)
Frank Schiavone (Ward 4)

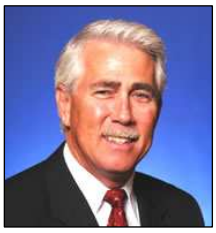
Bottom Row (Left to Right)

Andy Melendrez (Ward 2)
Mayor Ron Loveridge
Nancy Hart (Ward 6)
Rusty Bailey (Ward 3)

The City Council's Strategic Goals and Budget Priorities:

- Economic Development
- Growth and Annexation
- Transportation
- Livable Communities and Neighborhoods

Riverside seeks to enhance its position as the economic and cultural center of the Inland Empire and one of the best places to live and work in the U.S.



Brad Hudson, City Manager

Riverside's Renaissance is well underway! This $1.8 billion revitalization effort will ensure Riverside's position as the capital city of the Inland Empire. Watch for updates as the City completes 30 years' worth of public improvements in just five years. Technology is ingrained in all our projects***. High Technology is a necessary and important component to the economic future of our City*** and to create that future, Riverside must anchor its place as the high technology capitol of Inland Southern California.

Ron Loveridge, Mayor and Chairman of SmartRiverside

The City of Riverside is evolving as a high technology community. We have over 40,000 college students and a growing number of organizations that are using computer-based solutions in creative new ways and leading the way to our future. As the chairman of SmartRiverside, my goals are to continue to attract and develop high technology companies in the City of Riverside, build a smarter Riverside through City-wide free wireless Internet access, increase the technology literacy of Riverside through Digital Inclusion, and to identify new programs that foster technology innovation and use in Riverside.

THE CEO FORUMS' HIGH TECHNOLOGY TASK FORCE

In February 2004, the City of Riverside created the High Technology Taskforce. This independent group of high technology experts and practitioners was formed to make recommendations for city action to improve high technology economic development. The task force included City, University, and Community leaders as well as CEOs from Riverside's High Technology Companies.

RECOMMENDATIONS WERE:

1. Promote Local High Technology Development
2. Attract New and Support Existing Riverside Businesses
3. *Assure Advanced Internet Access for Business and Citizens*
4. ***Assure City's Strategic Use of Technology***
5. Stimulate Technology Transfer and Entrepreneurship
6. *Promote Riverside as a Center for High Technology*
7. Orient Policies, Codes and Ordinances around High Technology
8. Attract and Retain a Professional Workforce

Steve Reneker, CIO and Executive Director of SmartRiverside

Over the past three years ***we have become a High Technology City***. Thanks to the foresight of our executive team we now have a robust and secure "state-of-the-art" enterprise datacenter; internet connectivity throughout the City; a team of highly skilled professionals; and our residents, businesses, community organizations and visitors have access to a *"24 Hour City Hall"* with services that are among the finest offered anywhere in the U.S.

Everyone in IT is tasked with pursuing excellence in all activities, being highly responsive, partnering with departments to help them leverage technology in delivering world class services, and being enterprise driven in order to provide high value, low cost integrated solutions for the City.

Nine Strategic Initiatives form the framework for priorities we set, decisions we make and projects we pursue. These initiatives (detailed in Section 5) include wireless computing, security, centralization and consolidation, integration, standards, infrastructure, e-government, digital inclusion and operational efficiency.

Our City is embracing technology at a rapid pace as we pursue our goals of enhancing Riverside's stature as the economic, cultural and high tech center of the Inland Empire. Some of the exciting projects we are pursuing include:

- Wireless connectivity everywhere in our City
- Free wireless computers for all low-income families
- Video Security in our parks, intersections, facilities and throughout the City
- The best Graffiti Abatement solution in the U.S.
- In-car video and wireless mobile data computers in 120 police patrol vehicles
- A modern Emergency Operations and Disaster Recovery Center
- An advanced 311 Customer Relationship System
- A Reverse 911 System to notify citizens about power outages and emergencies
- An advanced Traffic Management Center to view and free up bottlenecks real-time
- An Energy Management System to deliver some of the lowest utility rates in our State
- An enterprise GIS solution with layers of City assets and a master address database to help our Fire Department track and respond to emergencies
- A Map-based property system to locate information, WiFi access points and orthoplots of all City Property
- High Definition Digital Technology in City facilities for council broadcasting, activity viewing, presenting information, demonstrating solutions and training employees
- Enhanced on-line benefits self-service for City employees

In this IT strategic plan you will find more information about our services, our best in industry project management and departmental alignment methodology, our standards and architectures, our major initiatives, projects we are pursuing with City departments and actions we are taking in pursuit of our City's vision for the future.

Section 2 – Mission, Vision, and Guiding Principles

Working Together with the Same Goals in Mind

Committed to providing services and performing responsibilities in accordance with guiding principals and City of Riverside Core values

The Information Technology (IT) Department's primary purpose is to help departments improve service delivery. Citizens and other stakeholders should benefit substantially from this strategic plan by realizing improved access to services, information, and more convenience in how they conduct business with the City. The IT Department's goal is to serve everyone in a fair and consistent manner using the strategies, values, guiding principles, policies and procedures set forth in this document.

2.1 IT Mission

The mission of the Information Technology Department is to work collaboratively with other member agencies and private partnerships to improve the quality of urban life in the City; achieve practical and reliable solutions to City problems and optimize opportunities through information technology leadership and professional services; and provide an exciting, challenging, and rewarding environment where staff members derive satisfaction from challenging assignments, continued professional growth, personal accomplishments, and the success of City of Riverside departments in meeting their operational and service objectives.

2.2 IT Vision

The City of Riverside Information Technology Department is committed to being a premier city government service provider. The Information Technology Department's vision is to:

- Provide highly skilled and motivated information technology professionals that share a commitment to excellence and quality customer service.
- Gain a clear understanding of City department's business services.
- Assist in developing technical solutions that meet business needs.
- Ensure the capacity required to support current and future enterprise needs is available.
- Provide innovative solutions and process improvement using proven state-of-the-art technologies.

- Maximize the City's investment in technology to ensure targeted and efficient use of resources.
- Deploy technologies that protect individual privacy and provide adequate security to protect individual information as required by law.
- Develop a technology infrastructure and processes to comprehensively manage, preserve, and share in electronic form, the extensive knowledge base of City departments.
- Identify and address emerging needs for City-wide solutions.
- Support and enhance the strategic IT competencies of the City Department's technology power users and Business Systems Analysts.

2.3 IT Principles

Organizational Principles

#	Principle
1	The City's Executive Technology Committee and the IT Department will use a formal, collaborative process to review, approve and prioritize all major investments in information technology, systems, and applications.
2	The IT organization will provide technology guidance to City departments and establish enterprise standards on the use of technology.
3	The IT organization will support the business needs of the City departments.

Infrastructure Principles

#	Principle
1	The IT infrastructure will be based upon open systems concepts and single sign-on access to assure secure universal access and interoperability.
2	The IT infrastructure will be designed to take advantage of advances in technology.
3	The IT infrastructure will remain current on system enhancements and will be continuously upgraded to meet the City's performance and security needs.
4	The IT infrastructure will facilitate the sharing of hardware, software, and data resources.
5	The IT infrastructure will be designed in a manner that facilitates anytime/anywhere access to City systems and applications.

Data Principles

#	Principle
1	Data are assets that must be managed to the benefit of the City.
2	Data will be managed and maintained in accordance with the City's standards.
3	Data will be entered once as close to its source as possible.
4	Data will have a single steward, with a clearly defined logical location, and will be accessible to those who are authorized to view and/or use it.
5	Data will be shared in a manner that is consistent with security and confidentiality requirements established by the City's Executive Technology Committee, and in accordance with state and federal laws.

Application Principles

#	Principle
1	Commercial off-the-shelf (COTS) and/or government off-the-shelf (GOTS) applications will be acquired whenever possible, rather than developed in-house.
2	Applications will use standard web and Graphical User Interfaces (GUIs) and will be supported with vendor provided support services, documentation and user training.
3	Applications will be selected and prioritized with the active participation and collaboration of departmental users and subject matter experts and within City standards.
4	Applications will be selected based on their long-term viability and low-cost maintenance.
5	Applications will be selected for ease of interoperability with other City services.
6	New and existing spatial data sets will be designed, cataloged, and described in a comprehensive and standard way utilizing ArcGIS technology from the Environmental Systems Research Institute (ESRI).

2.4 City of Riverside Core Values

Integrity and Credibility: We seek to earn the public's trust and the trust of our member departments.

Commitment to Service and Action: We put our customers first. We facilitate, enable and problem solve. We communicate regularly with our customers to determine their satisfaction with our performance.

Accountability: We establish measurable performance goals and recognize achievement. We define and assign responsibility and authority and hold ourselves accountable for results.

Inclusiveness and Diversity: We appreciate the uniqueness of each individual. We treat each person within the organization and the larger community with respect and dignity.

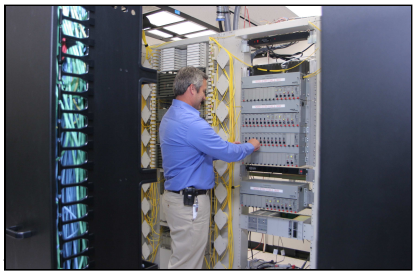
Loyalty: We identify ourselves with pride as part of the City of Riverside. As City representatives, we commit ourselves to advancing the goals of the entire City organization.

Personal Growth: We believe Riverside employees want to excel and will create a learning environment that maximizes the potential of each person.

Innovation: We are creative in meeting the community's changing needs and preparing for the future. We strive for excellence and timeliness in the quality of our work.

Teamwork: We form effective work groups that maximize resources and deliver high quality services within and across departments. We listen to each other and give honest feedback.

Section 3 – Current Environment



Working Together with the Same Goals in Mind

A state of the art enterprise datacenter, network connectivity citywide, a highly responsive call center, advanced application services and a best practices project management & department alignment process that enables rapid and continuous deployment of new services.

Information Technology Organization

Chief Information Officer (CIO): The Department of IT is led by the Chief Information Officer who is responsible for the City's overall technology strategy, overseeing all IT department activities, providing SmartRiverside leadership and for collaborating with City departments and the City's senior executive team in setting priorities, securing funds and delivering services.

The ACS Account Director collaborates with the CIO and Chief Technical Officer (CTO) and ensures that ACS executes on the priorities and projects established by the Executive Technology Committee (ETC) and CIO. The ACS Account Director with the support of the CIO, CTO, department feedback and ACS Corporate resources generates the annual strategic plan and department policies. To attract and maintain the best IT talent while staying within budget, the ACS Account Director works closely with IT management to evaluate and satisfy staffing needs on an on-going basis.

The Chief Technology Officer (CTO) is responsible for the day-to-day activities of the IT Department's four Operating Divisions:

- **Operations and Systems Services Division** is responsible for system and storage configuration, implementation and administration. They focus on system design, conformance to standards, maximizing system performance, and disaster preparedness.
- **Network Services Division** is responsible for management of the City's local and wide area networks, copper, fiber and wireless communications, video security, and telecommunication services. This division also assures adequate security measures are in place to protect the City's network from unauthorized access.
- **Client Services Division** is responsible for Help Desk and desktop support services. The help desk receives problem and service calls, and tracks and routes the calls to appropriate IT staff for timely resolution. This division also supports installation and replacement of desktop and laptop computers, printers and standard desktop applications, such as Microsoft Office and Outlook.

- **Application Architecture & Services Division** is responsible for support of enterprise systems, selection leadership and integration of new commercial-off-the-shelf (COTS) solutions, maintenance and upgrade of existing systems, architectures, software and database standards, web development and GIS support.

Information Technology Officers (ITOs) are the primary point of contact between City Departments and IT. The ITOs work closely with the departments to understand their business processes and resource needs, identify solutions, initiate IT projects, coordinate technology services and report status.

Project Management Office (PMO): The PMO is responsible for ensuring all IT projects have a detailed project plan, adequate funding, and executive sponsorship. The PMO is also responsible for reviewing project plans on a regular basis and making sure they are current and posted on the Internet. The PMO provides project staff support to the CIO and participates in weekly update meetings with the CIO, CTO, ACS Account Director and the ITOs.

Digital Inclusion team: This team distributes on average 250 wireless computers to low income families in Riverside each month. Sponsored by **SmartRiverside**, they receive and track donated computer equipment, rebuild systems, manage the e-waste program, write grants and run an e-bay sales program.

Administrative Support is responsible for coordinating IT procurement, finance, budget, payroll and personnel services.

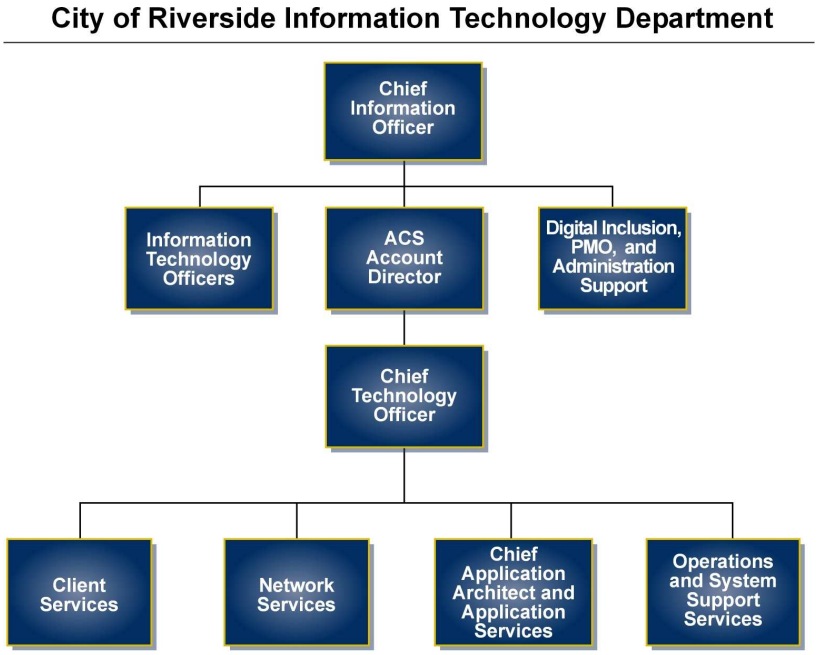


Exhibit 3-1. The IT department is organized to provide premier service to City departments.

3.1 Operations and Systems Services

The City now has a secure and reliable "state-of-the-art" enterprise data center. IT has centralized 150 Dell and HP servers into a secure environment and has used 6 new high-end Dell servers to host 100 virtual computer environments. This has given IT a 16 to 1 productivity improvement compared to traditional methods of server computing. IT also has more than 70 terabytes (trillion) of tier 1 & tier 2 storage and 130 terabytes of tier 3 storage that is providing the space needed to support advanced integrated voice, data and video computing.

The City recently completed construction of a modern Emergency Operations Center (EOC) several miles away from City Hall. This earthquake resistant building can serve as a disaster recovery facility and is an excellent location for a backup datacenter. Today it is being used for the citywide Reverse 911 system and will provide backup for RPUs n-Market power trading application. More applications will be run at the EOC as funds and priorities permit. Both the EOC and the enterprise data center are protected by generators with redundant UPS systems that provide ample alternative power should it be needed.

Over the past year the operations and support team has centralized and consolidated servers, increased capacity, improved security and switched from tape to disk media for backup. Restores that used to take one day or longer can now be done in minutes.

Operations and Systems Services include:

- **System Administration Services –** Server configuration and management, server inventory tracking, testing, patching, antivirus monitoring, and operating system upgrades.
- **Storage Administration Services –** Configuration and management of system storage units and tape back-up processes (including off-site storage).
- **Operation Services –** Performing all operations pertaining to the monitoring of nightly utility billing processes, generation of nightly utility bills, and generation of utility billing reports**.**

Operations and Systems Services Provide:

- **Anti-virus and anti-spyware** service to monitor all City servers and desktops. The division has also deployed an email scanning service to identify malicious emails that may have made it past the filtering service. This software is used to centrally manage these services.
- **Software distribution and patch management** for servers and workstations using Microsoft Windows Server Update Services (WSUS) and Systems Management Server (SMS) products.
- **Administration of employee network accounts** using Microsoft's Active Directory software.

- **Physical access control** at the location(s) where the system-wide data is stored.
- **Email filtering** service for all incoming email from the public. This service eliminates up to 99% of unwanted email before it reaches the City's network. Additionally, if the City's system is not accepting email for any reason the service will encrypt and queue email until the client server is back online.
- **Administration of secure remote access** for employees and vendors using 2-factor authentication (token and password).

Photos of the data center are shown in the Exhibits below:

Exhibit 3-2. Data Center after remodel

Exhibit 3-3. Jim Smith in the City Hall Data Center

3.2 Network Services

The City of Riverside has an advanced network system that includes high speed fiber communications to core facilities, multi-tiered wireless connectivity everywhere in the City and working partnerships with leading communications companies.

Exhibit 3-4. Network Operations after Remodel

Applications implemented and supported on the new high speed and wireless networks include in-vehicle video solutions, libraries with computers instead of books (cybraries), advanced learning centers in youth and senior centers, remote water well monitoring, wireless parking meters with credit card acceptance, and advanced traffic flow systems. This year IT plans on replacing all T1 data circuits with fiber to significantly increase network speed and converge voice, data and video networks.

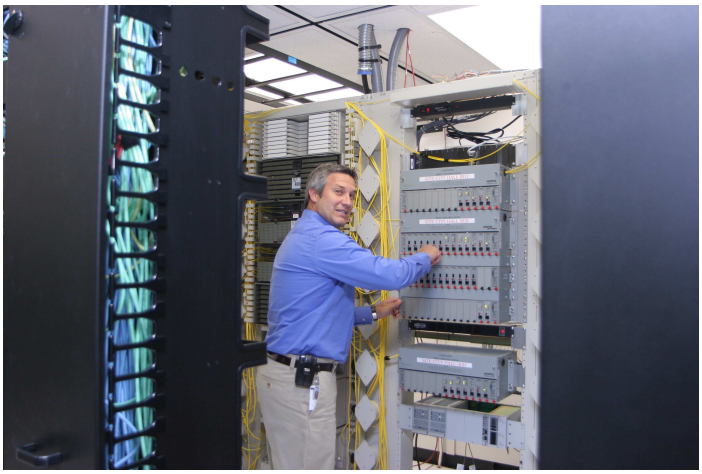


Exhibit 3-5. Terry Reed in the network operations center

Network Services include:

- **Data Network Services-** Security & firewall configuration, network administration, wireless support and all local area (LAN) and wide area network (WAN) services.
- **Video Network Services:** Requirements analysis, design, configuration, acquisition, installation and monitoring to support the fast growing application demands for video security, graffiti abatement, traffic control and other video solutions rolling out City-wide. There are 130 video cameras operational throughout the City and 200 more scheduled for installation this year.
- **Telecommunications Services-** This team supports more than 560 data circuits, 56 T1 connections, 1500 handsets, 800 cell phones, and 300 PDAs. A diagram of the City telecommunications network is shown in Exhibit 3-7.

- **Network Security Services-** On-site support is provided from 8am until 5pm daily and 24x7 for on-call emergency service. The following network security measures are in place to protect City information assets:
  - **Network Segmentation-** Virtual Local Area Networks (VLANs) are used to "virtually" separate departments from each other while enabling physical resource sharing in order to simplify network management, control costs and improve staff productivity.
  - **Firewall Segmentation-** Physically separates the City network from the public and provides City departments with "virtually" isolated environments. Unauthorized users are prevented from accessing the City's networks.
  - **Encryption-** All City network traffic that passes through public access is encrypted in order to provide a high level of information security. This is especially important as the City expands its use of wireless and Internet connectivity.
  - **Proxy Server-** Used to filter and log all outbound traffic to the Internet, control the types of sites City employees are allowed to visit and prevent certain kinds of Internet information from entering the City network.
  - **Reverse Proxy Server-** Separates City Servers from public access.
  - **Intrusion Protection-** Network monitoring software and processes that help detect and prevent unauthorized users from compromising and penetrating our network.
  - **Vulnerability Assessments-** Health checks are conducted monthly for all data center and police servers to make sure they are protected from outside attacks, unauthorized access and other security violations.
  - **Annual Penetration Test-** Conducted yearly by ACS to evaluate the potential for external influences to penetrate the City Network.

Diagrams depicting the City's network & telecommunication configurations are shown in Exhibits 3-6 and 3.7.

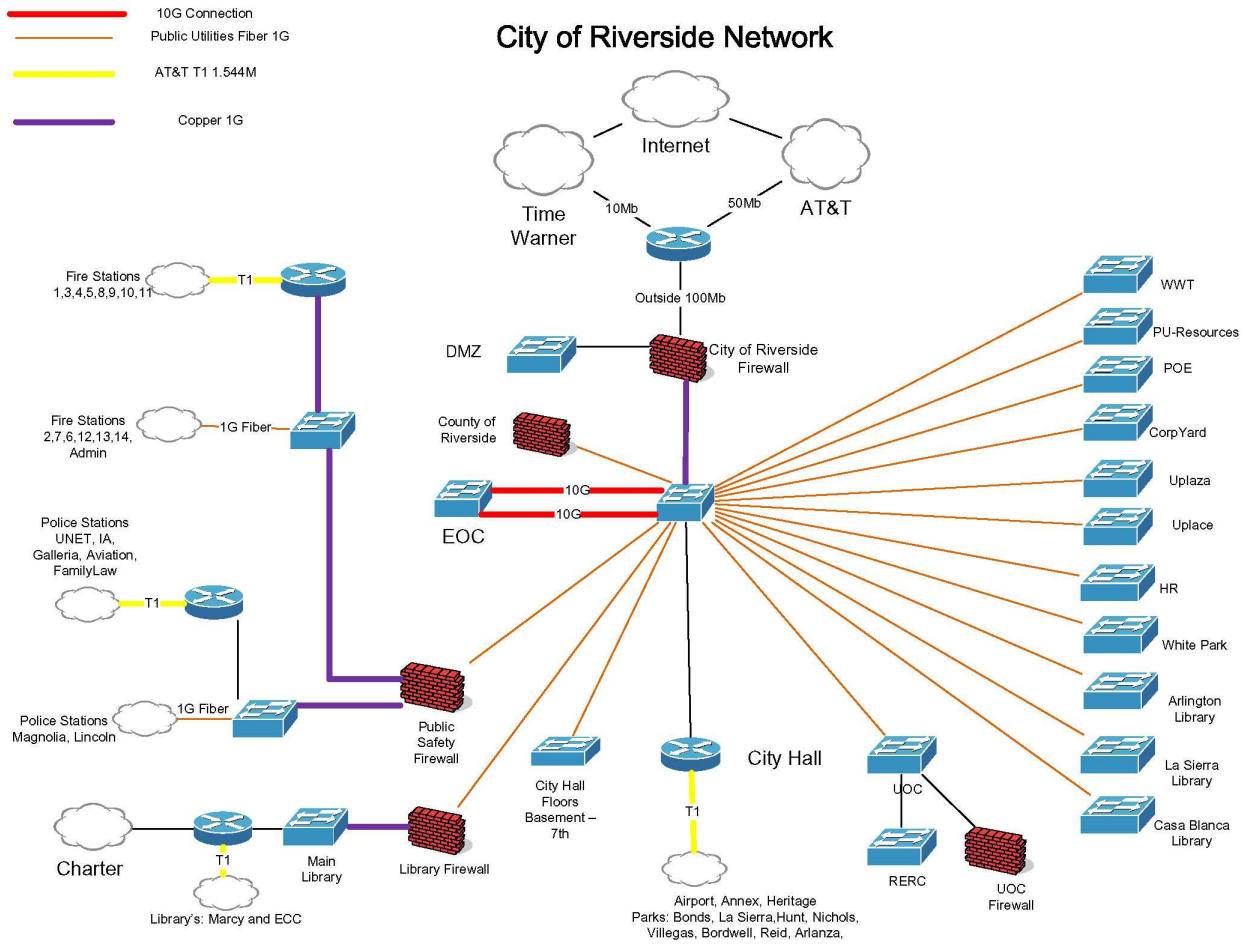


Exhibit 3.-6. The City utilized fiber, T1 and wireless communication methods to support City facilities.

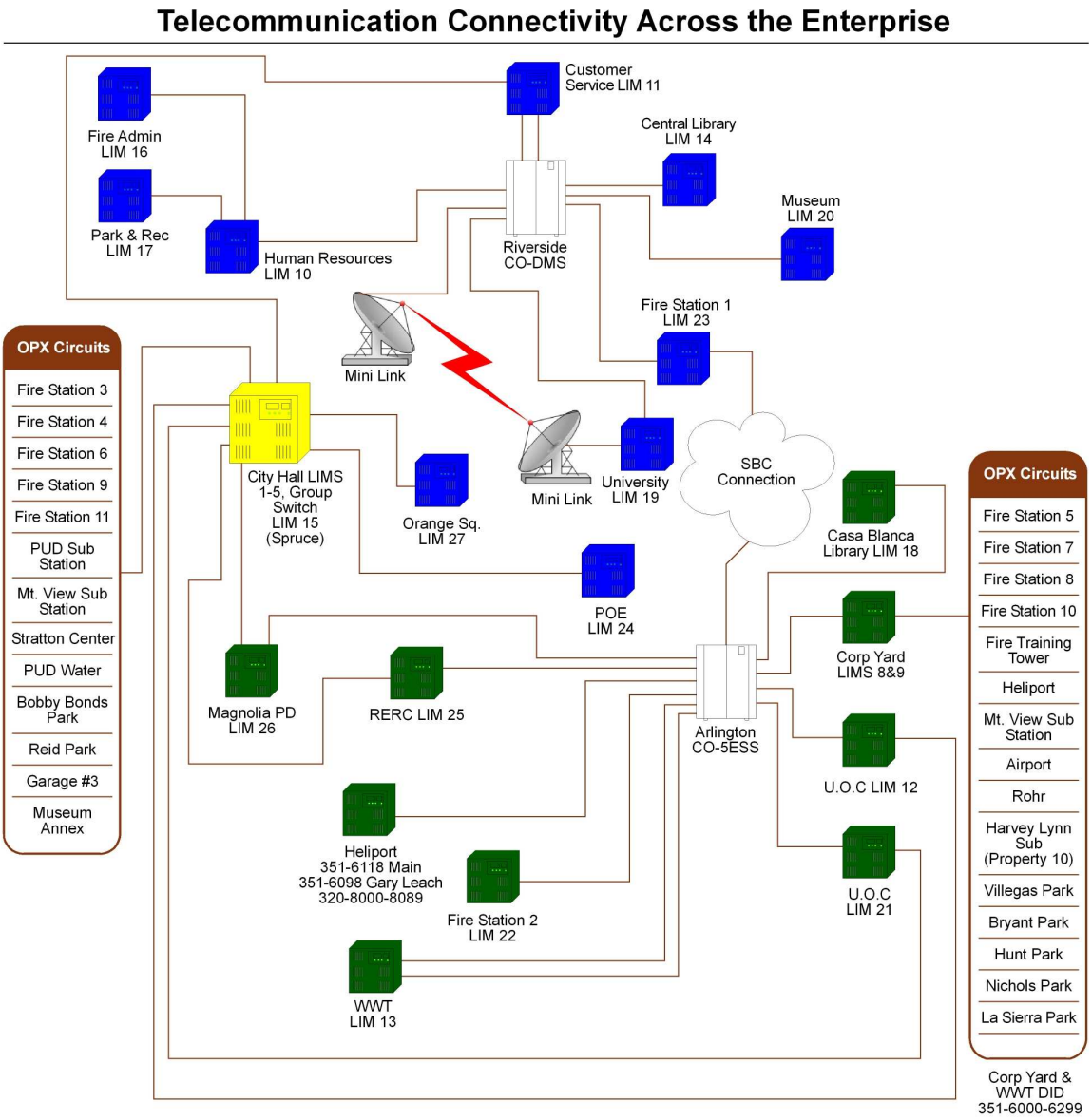


Exhibit 3-7. Riverside telecommunication network supports all City facilities

3.3 Client Services

This highly skilled and service oriented team is uniquely crossed trained so everyone can provide hardware, software, network and telecommunications support anywhere in the City. This team provides very fast response to approximately 1300 service requests each month in support of the City's 2700 computers and 56 desktop software products at more than 60 locations Citywide. Every technician is trained to set up computers, load software, synchronize blackberries, get employees productively working within minutes and provide whatever ongoing support that may be required.

- **Help Desk Services –** Help Desk technicians respond to all telephone and email inquiries to the City's Help Desk. Help Desk technicians conduct first level support and diagnostics and create tracking tickets based on the type of service required.
- **Desktop Services –** Desktop Service technicians provide Level 2 support. Desktop technicians receive ticket requests from Help Desk Services. The desktop technician then contacts the user, schedules an appointment and provides second level support via remote access, phone support or in person.

Hardware Standards

Device Type	Vendor	Quantity
Desktops	Dell	1800
Laptops	Dell	50
Field Rugged Laptops	Panasonic	250
Laser Printers	Dell / HP	800
TOTAL		3,500

Client Services

Services	Responsibilities
Helpdesk Hours	8:00am to 5:00pm M-F
24 / 7 Support Coverage	After hour on-call support for urgent needs
Helpdesk Rotation	All tech support staff rotate duty every 9 weeks
Tier 1 Support	Respond to incoming calls and emails with service requests, create & close tickets, remote assistance, and monitor call tracking & client call backs
Tier 2 Support	Field support to resolve HW & SW issues at the source
Tier 3 Support	Obtain support to resolve any issue
Escalation	Alert System to escalate issues that affect more than 3 clients
Wireless Mobile Telephones	Activation and configuration of AT&T, Verizon & Sprint/Nextel mobile phones
Handheld Devices	Activation and configuration of Blackberry's and cell phones
Wireless Broadband Adapters	Activation and configuration of AT&T and Verizon wireless broadband cards

Services	Responsibilities
Blackberry's	Blackberry enterprise server administration to create, activate and synchronize blackberry devices with Microsoft Outlook for email and calendar access
System Monitoring	4 wide screen displays monitoring server activity, traffic and error alerts
Utility Department Reporting	"Daily Billing Process" report (2/day)
Naming Convention Verification	Ensure all network PCs are properly named
Operating System Upgrades	Maintain common Operating System and productivity suite software on PCs
Application Upgrades	Ensure all Microsoft Office products are upgraded with latest patches and updates
City Manager & CIO Projects	Special Events – laptops, presentations, wireless/Inet access & documentation
Field Sites	Support every City of Riverside facility
Fire Department	24/7 support for GPS & CAD equipped emergency vehicles
Police Department	24/7 support for vehicles equipped with video cameras, audio, GPS and 4.9Ghz wireless access
City Council	Council meeting hardware, software, audio & visual presentation & Internet broadcasting support

Desktop Software Standards

Vendor	Desktop Software/Net Device	Description
Microsoft	Office 2003 Word	Word Processing
Microsoft	Office 2003 Excel	Spreadsheet
Microsoft	Office 2003 PowerPoint	Presentations
Microsoft	Office 2003 Access	Database Management System
Microsoft	Office 2003 Publisher	Document Publishing (low end)
Microsoft	Office 2003 Front Page	Web Design
Microsoft	Visio 2003	Diagramming
Microsoft	Project 2003	Project Management
Microsoft	Outlook 2003	Email/Calendar
Adobe	Acrobat Reader, Pro 7 and 8	PDF Creator
McAfee	Virus Scan Plus	Anti-Virus Protection
Funk Odyssey	Odyssey Access Client	Wireless Client
Quark	QuarkXpress 7 and 8	Desktop Publishing (high end)
Radio IP	RadioIP MTG	Wireless session persistence
Motorola Premier MDC	PMDC	Wireless Mobile Data Communication
Corel Company	WinZip	Zip Data Compression
Faronics	Deep Freeze	Desktop Restore
Ventyx	Banner	Customer Info System / Billing
Accela	Permits Plus	Permit, Business Tax, and Code Enforcement Automation Software
Compulink	LaserFiche	Document Imaging
BMC	Remedy /Magic and Helpdesk Express	Service Call Tracking System
Microsoft	Systems Management Server (SMS)	Systems Management/Software Distribution
ESRI	ArcInfo	Spatial computing
ESRI	ArcGIS	Geographic Information System

Vendor	Desktop Software/Net Device	Description
Honeywell	Badge Security Access	ID Badge Access
Genetec	Omnicast Live Viewer	Video Security Software
RecWare	SAFARI	Park facility reservation
CORE	iPayment	Cashiering
Cycom	City Law	Case Tracking Application
Innovative Interface	Millennium	Public Access catalog
NCR	Remittance Processing	Check Processing & Scanning
GO Software	PC Charge	Credit Card verification
Omega Group	Fire View	Fire Analysis
Omega Group	Crime View	Crime Analysis
i2	iCentral	Visual investigative analysis
Motorola	Printrak	(CAD)Computer Aided Dispatch
VisionAir Inc	Vision RMS	Records Management System
PDSI	Telestaff	Staff scheduling
SS&C	Skyline	View 3d & hi-res terrain images
David Systems	Worker's Compensation	Workers Compensation Data Base
Coban	VMDT	Mobile Vehicle Video Recording
MicroPaver	Pavement Management	Street Condition/Repavement
Cop Ware	Cal Legal Sourcebook	Penal & Vehicle codes
RouteMatch	Community Transportation	Transportation mgmt & scheduling
Audama	Ops Center	In / Out Electronic Board
Olympus	Digital Audio /Play Recording for PD	Wireless recorders for Officers
Datastream / MP2	Equipment Maint (Public Works)	Asset performance tracking
Microsoft	(MOSS) Microsoft Office SharePoint Server	Web content mgmt & info access
AT&T	UMTS (Mobile Broadband)	Wireless Mobile Adapters
Aruba	Wireless Access Points	Wireless Access Antennas (Internal use)
AT&T	Blackberry / RIM / (AT&T)	Handheld Wireless Devices
AT&T	BelAir / Nokia Siemens Netwks / Wi-Fi	Wireless Access Antennas (External use)
Adobe	Photoshop CS	Professional Image editing
Real VNC Inc	VNC	Remote Assistant Tool
Auto Desk	AutoCad	Computer Aided Design & Engineering

3.4 Application and Architecture Services (AAS)

This team is highly skilled and experienced in advanced computer system development, software and database architecture, business system process design, spatial (map based solution) analysis and integration, internet technologies, implementation methodologies and has expert knowledge of Riverside's operating environments, core applications, operating systems, databases and support systems.

Exhibit 3-8. Saul Melera, Donna Arrechea, Josh Narrell, and Jim Koch discussing the 311 project.

Last year the application and architecture team delivered more than 25 solutions to City departments. Carry-over demand this year already exceeds 50 requests.

Application Architecture services include:

- **Application Review and Assessment Services (ARAS)** – Review and assess all new application acquisitions and development for concurrence with citywide standards. An Application Review and Assessment Committee is convened as necessary to review and approve requests.
- **DBA Services** – Configuration, management, and upgrade of the City's Oracle and SQL database systems. Currently, the team also supports Informix, which is scheduled to be phased out over the next few years.
- **Web Development** – Design, update and maintain the City's Internet and Intranet. The web development team works with each department's subject matter experts to design and construct web sites and review and add content to the department's site. The team also develops and maintains web-based forms.
- **GIS Services** - Develops and maintains GIS data, tools, models, metadata and support for spatial & web applications. They customize spatial data for map based web applications, generate data layers, provide cartographic output, distribute GIS-related software and licensing, conduct training, centrally store and manage GIS data and optimize performance.
- **Commercial-Off-The-Shelf (COTS) Services** – Vendor coordination, client interface, application configuration/management, and report creation for software applications. The team works closely with departments to define and communicate requirements to the COTS vendors. Application Architecture Services supports

over 130 application packages utilized by City departments. *A listing of the applications is found in Appendix A.*

Top architectural priorities this year based on department needs include:

- **High Availability** in every system. The AAS team is implementing an Oracle Real Application Cluster High Availability Environment. All core City applications will share processing, storage and memory while remaining securely & virtually isolated to their own space. Spare, new or existing resources can be dynamically allocated anywhere needed to compensate for capacity peaks, outages or system slowdowns to ensure high performance and availability at all times.

- **Data Warehouse Reporting** that users can easily do themselves, accessing any data from any system within minutes. The AAS team vision is to create a real time (with high speed bi-directional communications) duplicate data center environment at the EOC for selected core applications and all databases. The databases at the EOC will be integrated into an advanced data warehouse and provide all authorized city users a single integrated view of the data fields they need for reporting purposes no matter what system (IFAS, Banner, Permits, etc) the original data was associated with. This will allow the team to isolate reporting to the EOC and production to City Hall. Both will have the same up to the second real time information. Users will do their work using the City hall data center and reporting using the EOC and not even notice the difference. Users producing reports will not slow down production or cause outages. The goal is for advanced self-service reporting and high availability zero-downtime production computing. The team has already piloted this plan with multiple smaller data warehouse environments with very promising results.

- **Integration:** AAS is currently working on 25 top priority application projects in response to department requests for advanced function and new citizen services. Users are requesting easy to use graphical and map based interfaces and only want to sign on one time to get to whatever system and information they need. They want the new systems IT provides to work together and integrate with systems City departments are already using. Further, they are requesting online self-service capability that requires no or minimal training.
  To meet these needs the IT department is standardizing on "Best Practices" software integration architectures that provide the tools to meet these requirements. Adhering to these architectures is enabling IT to select custom off the shelf or build applications that have modular, reusable components, are easy to maintain and allow a choice of interfaces. Future systems will be integrated, have a single sign-on, be easy to learn, provide advanced analytical self-service reporting, and require minimal maintenance.

- **Geographical Information Systems (GIS):** Much of what the City does is location based. The City provides services to help citizens evaluate and improve property; obtain permits; use emergency services; resolve neighborhood code violations; repair power, water and street breakages; get through intersections quickly and reserve and use park facilities. Employees and Citizens are communicating that they want solutions for these services to be map based because they are easier to use and drive higher levels of productivity.
  The City is fortunate in that it already has a number of leading edge GIS solutions in use, a large database of spatial information and a team of highly skilled GIS developers continuously integrating map based (GIS) solutions into projects. New GIS projects being implemented include the Traffic Management Center (TMC), the Property Profiler, the Graffiti Analysis Tool (GAT) and 311. The AAS team vision is to integrate GIS with every core City solution.

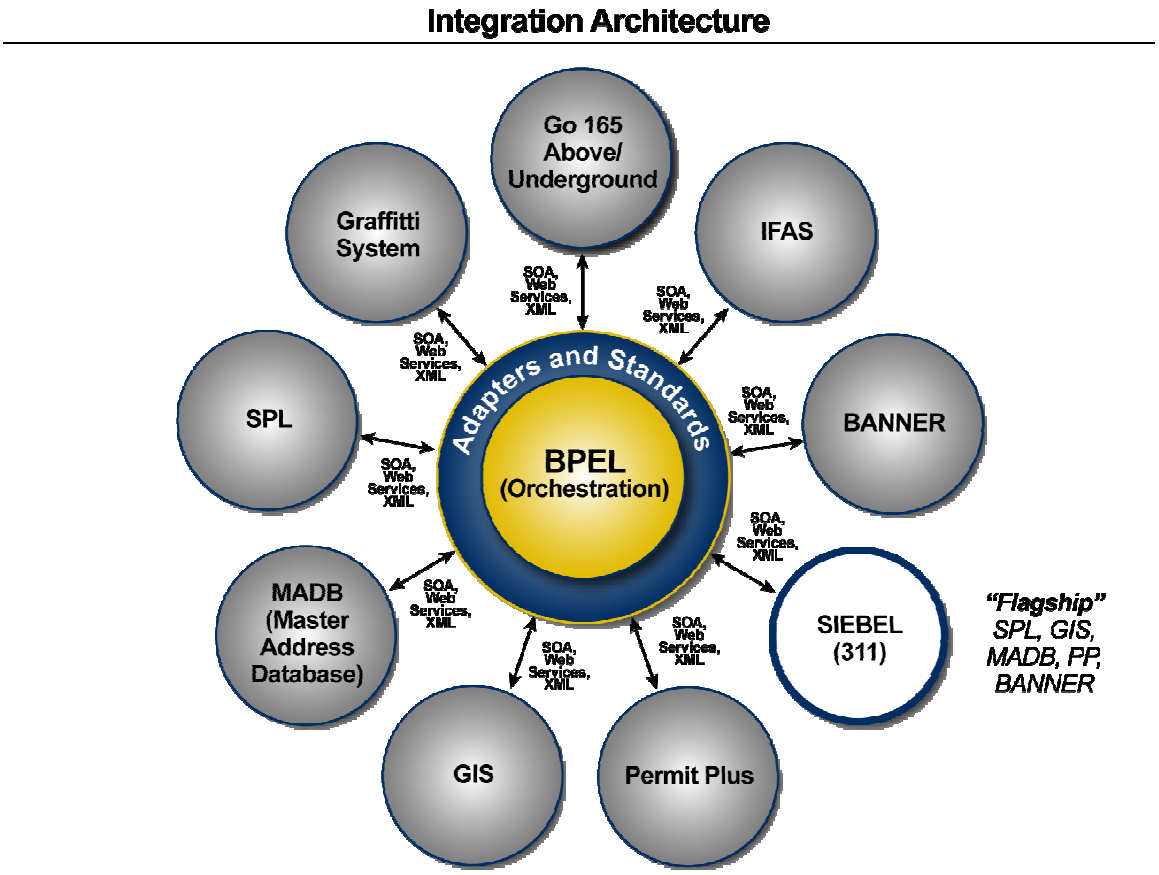


Exhibit 3-9. All systems will use BPEL orchestration and web services to exchange information.

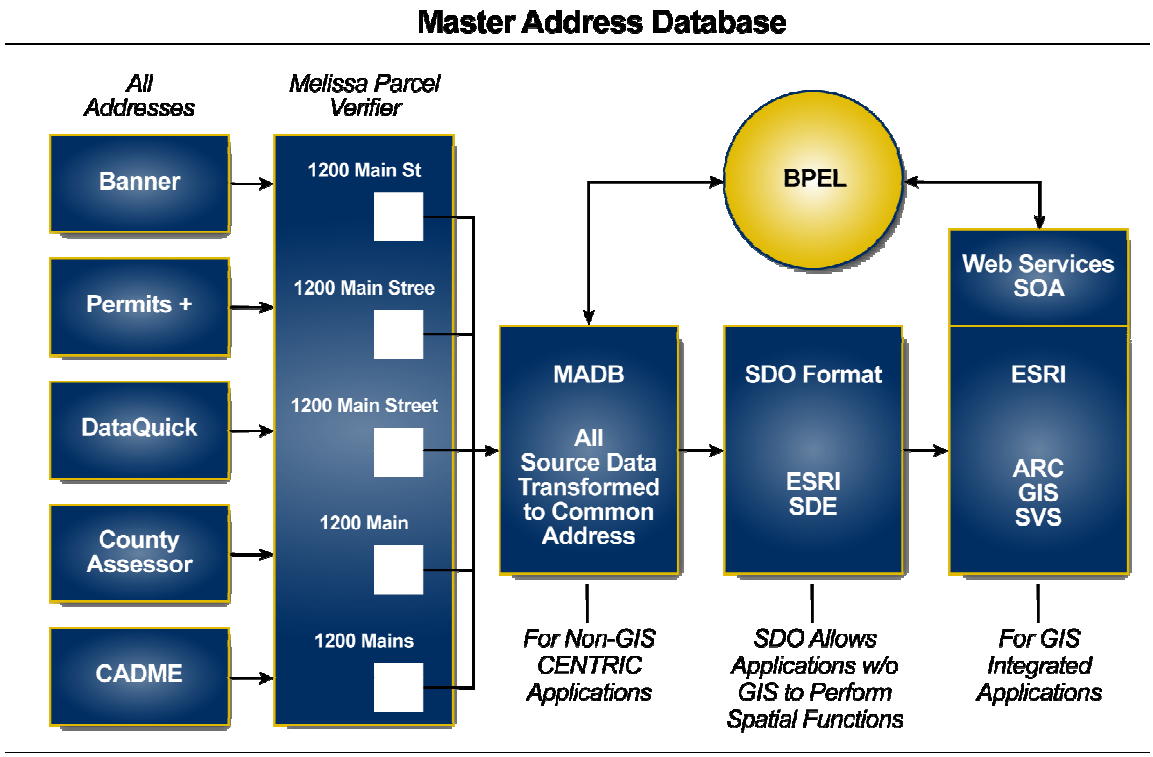


Exhibit 3-10. The IT Department is building a master address database. All addresses and locations will be represented the same way to all applications enabling efficient and effective system integration.

Section 4 – Strategic Alignment, Governance, & Project Mgmt Methodology

Working Together with the Same Goals in Mind

Aligning with City Departments to continuously improve the services provided for citizens, businesses, organizations and visitors.

4.1 Continuous Improvement

The Information Technology (IT) Department has implemented a "Best Practices" Project Management Office (PMO) and Department Alignment Process that combines the talents of our people with the constant advances in technology enabling high productivity while continuously improving the services departments offer. All Initiatives involving technology are reviewed bi-weekly within IT and monthly across the City departments for progress, priority and needs in order to resolve issues, assign resources and complete projects on time and within budget.

Exhibit 4-1. IT project management is a continuous process involving the entire City.

4.2 IT Governance

Information technology at the City of Riverside is governed by the Executive Technology Committee, the Chief Information Officer and Department Directors.

- **Executive Technology Committee (ETC).** The ETC includes the City Manager, Assistant City Managers, Chief Information Officer, and five Department Directors appointed by the City Manager. These directors include the Police Chief, Fire Chief, Director of Public Works, Director of Public Utilities, and the Director of Community Development. The ETC meets monthly and is chaired by the City Manager. The Committee reviews project status, sets priorities, approves funding and discusses new initiatives.
- **The Chief Information Officer (CIO).** The CIO is responsible for the City's strategic use of technology, managing the Information Technology Department and working closely with City departments to improve processes and enhance citizen services. The CIO provides ETC and Information Technology Technical Committee (ITTC) leadership, collaborates with Department Directors regarding technology decisions and works with the City Manager's Office to secure funding for IT projects**.**
- **Information Technology Technical Committee (ITTC):** The ITTC includes representatives from each of the City's departments, BSAs, ITOs, project managers, application developers, the Chief Architect, CIO, CTO and ACS Account Director.

  ITTC meetings are held monthly and are an important conduit for communicating technology project status to the department users. The Agenda includes the City's top 10 priority projects, projects nearing completion, project demonstrations, issue discussion, and an exchange of ideas.
- **Business Systems Analysts (BSAs):** The BSAs are subject matter experts on applications deployed in their department(s). They provide requirement definition for new technology needs, department user systems support and user level application training. The BSAs meet frequently with the Information Technology Officers to review progress, resolve issues and discuss new initiatives.

Department Communication

There is frequent and consistent communication between the City departments and IT. Department leaders meet frequently in staff, committee and council meetings, and for project updates. The Information Technology Officers (ITOs) provide single point of contact leadership to departments, and Department Business Systems Analysts (BSAs) provide a similar role in working with IT.

4.3 Project Management and Department Alignment Process

IT projects are initiated by sponsoring departments, reviewed by the CIO, added to the master project list (more than 200 projects are on the current list) and assigned an initial priority. The Project Management Office then creates an online automated project that is assigned to an ITO to manage. The ITO identifies resources, communicates progress, updates the plan and reviews status bi-weekly with the CIO, and monthly with the department leadership team and the ITTC. Funds and resources are allocated based on ETC priorities at their monthly meeting. A work flow of the process is shown in Exhibit 4.2.

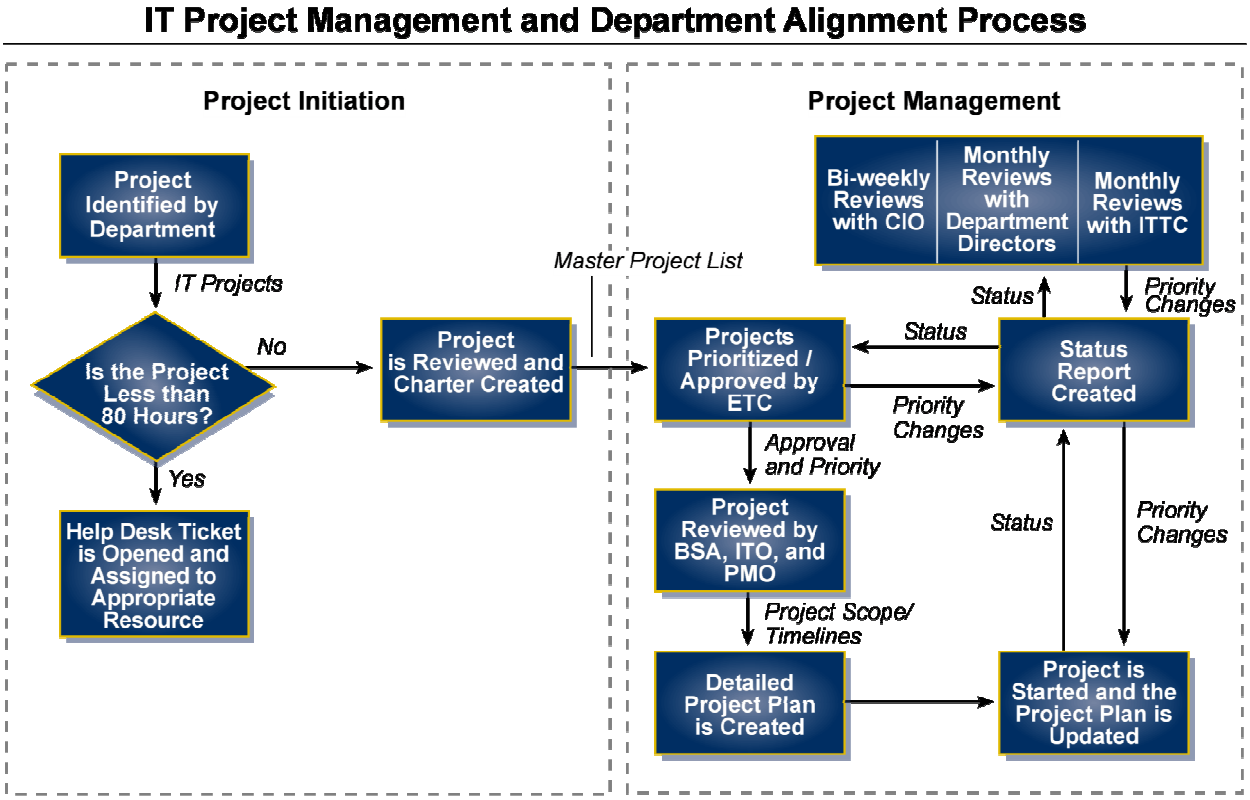


Exhibit 4-2. The IT Project Management and Department Alignment Process ensures that each project is identified, tracked, prioritized and completed.

4.4 Project Initiation

As projects are identified, projects greater than 80 hours are added to the master project list. Projects are added with a specific color code. Projects with a color code of white means the project is neither approved nor funded. When a project is approved, it moves to a color code of yellow and IT allocates resources to the requesting department to begin scoping the project. Once a project is scoped and funding is secured, it moves to a color code of green, a project manager is assigned and necessary resources are made available. If resources are not available, ACS may bring in additional resources as budget allows to meet the required department deadline. Otherwise, the goal is to complete projects with available resources in house. All ACS staff are full time and dedicated to the City of Riverside.

Projects projected to be less than 80 hours are submitted as work order ticket requests to the IT Department Helpdesk where they are prioritized and completed as resources become available.

4.5 Project Management

IT and department resources work together on a daily basis to complete project tasks on schedule and within budget. Project status for all IT projects is reviewed with the CIO, CTO, ACS Account Director and PMO every two weeks. ITOs provide status updates for Department Directors and their staff and the ITTC every month. The CIO discusses projects with Department Directors and the Senior Executive team on a daily basis, and monthly at ETC and ITTC meetings.

4.6 Project Funding

Projects are funded from the following sources:

- **General Fund** – When the project has general city-wide impact.
- **Departmental Budgets** – Budget analysts work with departments and place all information technology projects into the IT Budget with project numbers so funds can't be used for discretionary purposes. When a project is completed the department is refunded any remaining balance it decides not to allocate to another project.
- **State and Federal Agencies** – The City's IT department works with other City departments to identify alternative sources of funding including state and federal grants.
- **SmartRiverside's Digital Inclusion Program** – Smart Riverside generates over $400,000 annually from its e-waste program, charitable golf tournament, Inland

Empire Tech Week and e-bay sales. These funds help support the City's digital inclusion program that donates 250 free wireless computers to low income families every month.

During the budget cycle, each department identifies IT projects to be accomplished during the fiscal year and collaborates with IT to estimate implementation costs. Project costs are included in the IT Department's budget request submitted to the City Manager and City Council for approval. Projects added outside the budget process are unfunded and must be added to the project list, prioritized and funded following the process outlined above.

Section 5 – Information Technology Strategic Initiatives

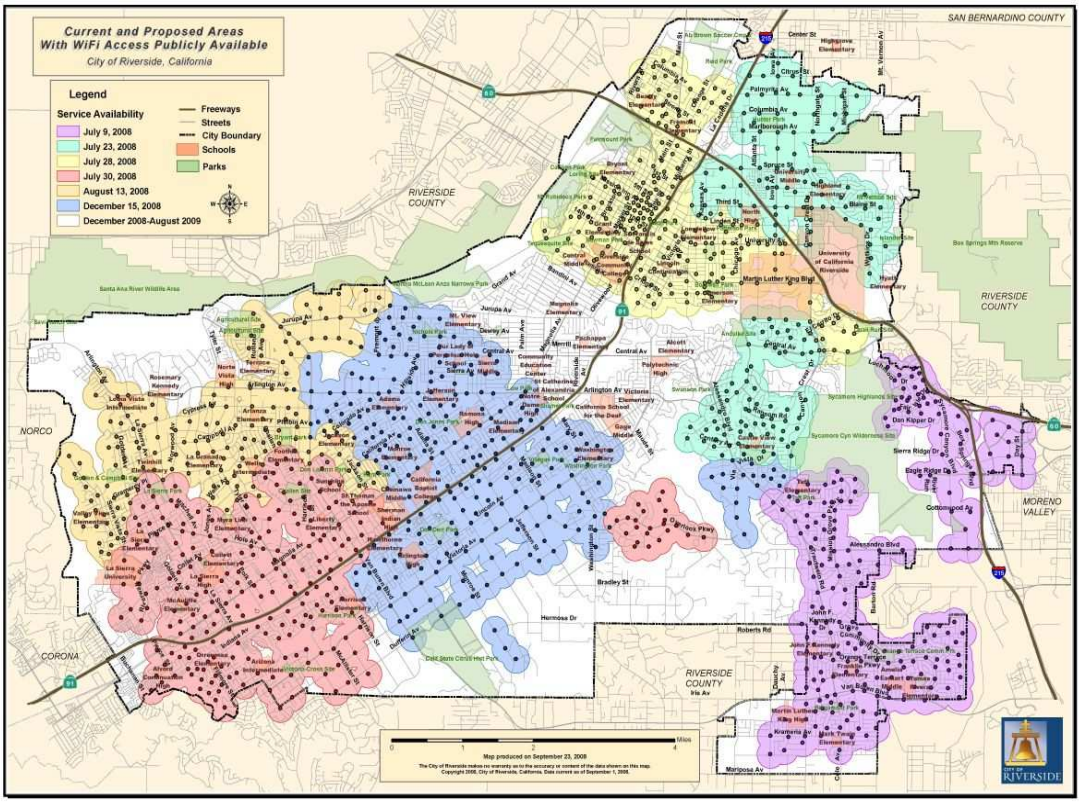
Working Together with the Same Goals in Mind

Nine Strategic initiatives form the framework for priorities set, decisions made and projects pursued

5.1 Wireless Communications

The City is implementing a wireless, broadband, Internet access network that will encompass the City's 85 square mile perimeter. Once completed, this will be the nation's largest Wireless–Fidelity (WiFi) Local Area Network (LAN) designed for free public and municipal use.

The citywide wireless network is composed of two City networks: 2.4 GHz for City business at 2 speeds (1Mbps and 90kbps) and 4.9 GHz for Public Safety only (1 Mbps).



The WiFi initiative includes:

- **Free Internet Access**. The City's WiFi service will be free to residents, businesses, and visitors at speeds up to 512Kbps and will be available Citywide through an advertisement supported service. This service is intended to be an outside network. For inside use, a wireless modem will be required
- **Premium Internet Access**. Higher speed services are available for a fee or free to AT&T DSL subscribers.
- **Video Security Projects**. A variety of applications are being implemented for parks, railroad crossings, city facilities, graffiti locations and intersections. This is achieved through the use of permanent and mobile cameras placed where/when needed. The cameras can be set to trigger recording by a series of events. Video will be transmitted back to the data center where it will be recorded for view after an event.
- **In Car Video**. Public safety video will be transmitted over the 4.9 GHz network back to police headquarters where it will be recorded for past event review by police records management staff.
- **Expanded sanitation SCADA monitoring**. Monitoring of SCADA systems will be used to replace radio-controlled devices in order to provide real-time data for SCADA operations.
- **Traffic Signal Control**. The City's traffic management system is designed to view signals for the progression of light timing to ensure a smoother traffic flow during peak traffic times and to signal real-time controls when traffic congestion exists.
- **Automated Vehicle Location**. Police, Fire and Public Works use integrated vehicle locators with computer-aided dispatch for real time knowledge of assets in order assist dispatchers in providing the best possible service to our community.
- **Ball Field Light Control.** Ball fields will convert from a legacy radio frequency system and higher cost cellular connectors to WiFi for instantaneous control of lighting as fields are reserved in order to save money, power and staff time.
- **Parking Meter Control.** Parking meters are being converted to WiFi for credit card authorization in order to reduce costs and improve service.

5.2 Security

The City employs proven and reliable measures to provide enterprise wide IT security. Focused efforts include intrusion prevention and detection systems, network and security management tools, periodic audits and assessments, and access control measures.

Strategic IT security objectives include:

- **Administration**. Development and publication of security policies, standards, and procedures which detail authentication, audit, access control, assessment, authorization, and physical security. Policies include screening of personnel, security awareness training, monitoring of system activity, and change control.
- **Authentication**. Complex passwords have been implemented to make hacking onto City servers more difficult. Sharing of passwords is not allowed. The systems are able to specifically identify the exact employee who accesses every City system and logs the activities that have taken place.
- **Audit.** An objective, independent examination of a work product or set of work products (files, processes, etc.) to assess compliance with specifications, standards, contractual agreements, integrity, or other pre-identified criteria will be done annually along with the penetration test to ensure all City systems and networks meet necessary security standards.

Projects that are underway or planned to improve system-wide security include:

- **Implementation of an enterprise wide Intrusion Prevention System (IPS).** Continuous assessment of the current environment and enhancements that provide additional features. Currently, Cisco IPS is used for viewing and monitoring functionality and Critical Watch is being evaluated to monitor network health.
- **Expanded network security management tools.** Automated tools will be implemented in the network operations center for the wireless network, enterprise wide event correlation and logging. This will provide a detailed analysis of any security incidents that occur within the network.
- **Annual security assessments performed by a 3rd-party vendor**. Each year the Information Technology Department will contract with a third party to identify and measure online security risks, and take appropriate action to minimize ITs exposure to those risks. These activities also serve to ensure that there have been no changes in the IT environment that would compromise the City's security in any way.

- **Enforcement of the City's password policy.** With the implementation of Active Directory, the City can enforce the password protection policy as defined in the City's security policy. This includes the expansion of single sign-on to City application systems so that multiple passwords are reduced or eliminated.

5.3 Centralization and Consolidation

The city has reengineered IT by adopting a more efficient centralized model aimed at the consolidation of data storage, electronic networks, computers and other resources. Projects supporting this initiative include virtualization of servers through VMWare, migration to database clusters, and expanded data storage on the City's storage area network (SAN). Sharing of resources rather than deploying additional systems, servers and networks provides significant cost savings to the City departments.

During the past year, funding has been provided for a number of projects to improve server and data storage reliability and performance.

Projects that are underway or planned to address centralization and consolidation include:

- **Expanded server virtualization environment**. This technology is designed to consolidate multiple servers into one physical server. The City has already decreased the number of physical servers city-wide from 220 to 160 while at the same time increasing the number of logical servers available for department applications to more than 250.
- **Expanded Storage area network (SAN)** to accommodate growing demand for video security and streaming, e-mail, map based applications, integrated data reporting and to support department projects. The enterprise data center currently maintains more than 200 terabytes (TB) of storage.
- **Migration of IFAS, SPL and other systems to VMWare** and the enterprise datacenter for improved availability, security, capacity, reporting and data management functionality.
- **Simplification of application integration, e-government and e-commerce internet transactions**. Centralization makes it easier to leverage software and architecture standards, protect web applications and take advantage of vendor discounts. For example, the Finance division has consolidated to a single vendor for on-line payments to ensure lowest merchant fees for the City while providing an easy to use, secure, single payment screen that is used to transact business through the internet.

5.4 Integration

In the past, City applications ran on different hardware and software platforms and were not integrated. Interfacing was done overnight in batch mode. This was time consuming, expensive and a maintenance headache.

The IT Department now embraces integration standards that enable secure sharing of processes and data among applications. Focus is on understanding department business problems, processes and needs and providing solutions that are designed modularly, are reusable, and can work in any vendor environment.

This allows IT to do more with fewer resources for less money while providing new solutions faster that not only solve department problems but integrate with other City systems.

The IT Department is creating an environment that allows components to communicate with each other even though they may not have been designed to do so.

Some of the integration building blocks IT is leveraging include Web Services, BPEL, SOA, ETL, CUBE, AAI, and GIS.

- **Web Services**: enable applications to interact with one another over the Web in a non-proprietary environment. Using Web services ensures that integration is based on open standards that are language neutral, platform independent and will be supported over time.
- **BPEL** (Business Process Execution Language): is emerging as the standard for assembling a set of discrete services into an end-to-end process flow, radically reducing the cost and complexity of process integration initiatives. It is used to orchestrate disparate applications and Web services into business processes. BPEL enables the IT Department to quickly build and deploy these processes in a standards-based manner and include application components that are already in service.
- **SOA** (Services Oriented Architecture): is a methodology for systems development and integration where functionality is grouped around business processes and packaged as interoperable services. SOA separates functions into distinct units, or services which are made accessible over the network so they can be combined and reused in new applications.
- **ETL** (Extract, Transform, and Load): is a data integration technology IT uses to consolidate information from multiple enterprise data sources to create data

warehouses. Data is extracted and transformed to fit the data model of the target data warehouse.

- **OLAP CUBE** (On-line transaction processing): is a data structure that allows fast analysis of data. The arrangement of data into cubes overcomes a limitation of relational databases that are not well suited for near instantaneous analysis and display of large amounts of data.
- **Authentication and Authorization Infrastructure (AAI):** AAI is a system **(infrastructure)** that checks to make sure user names are valid **(authentication)** and allowed to view the web resource they're requesting **(authorization)**. AAI principles are what IT will use to create a **"single sign on"** for users. When users log in successfully to an AAI enabled resource, the authentication part (who the user is) is valid for as long as the user's browser is open. If the user logs in to another AAI enabled web resource, they won't have to enter their name and password again - a very convenient benefit of using AAI enabled resources
- **GIS** (Geographical Information Systems): Most of the City's applications are location based. Integrating GIS (mapped based) technology into City applications allows IT to provide solutions that are much easier to use and understand.

5.5 Standards

IT Operational Services: Information Technology Infrastructure Library (ITIL) is a set of documents describing best practices in IT service areas (i.e. Change Management, Problem Management, Configuration Management, Release Management, Software Control & Distribution and Help Desk) and is the world wide de facto standard for IT services management. ITIL outlines an exhaustive set of management procedures to support organizations in achieving both value and quality in IT operations. The IT department is committed to using ITIL best practices as a guide for delivering services. IT practices are documented in the IT Department Policies and Procedures Manual. Best practices updates are a continuous activity.

Hardware and Software: IT Department standards are shown in Exhibit 5-1. The City continuously updates hardware and software standards as technology evolves. Adhering to standards enables IT to implement and integrate applications faster, reduce complexities, share resources, save money and train people quickly.

This year RPU will upgrade the Banner Customer Information System to Oracle 10g (a City Data Base Standard) to provide new functionality and a robust platform for data management, analysis, and reporting. They will also begin the process of replacing their map based GIS system with an Industry "Best Practices" supportable solution that is easy to use and integrates with other enterprise applications. The Fire Department's training

records system will migrate to Microsoft SQL DB (another standard) in order to improve performance and availability. City Department websites are being rebranded using IT standard toolsets to provide new functionality, a common look and feel and make it easier for citizens to find information and use City services.

All stakeholders have an opportunity to participate in the standards selection process. IT Standards are reviewed by the Executive Technology Committee (ETC) and maintained in the Information Technology Policies and Procedures document.

City of Riverside Technology Standards	
End User Hardware	**Standard**
Personal Computers	Dell Optiplex & Precision
Laptop computers	Dell Latitude & Precision
Public Safety Laptop computers	Panasonic Tough Books
Desktop/Laptop Software	**Standard**
Operating System	Windows XP
Anti-Virus	McAfee
Office Applications Suite	Microsoft Office 2003
Web Browser	Explorer V6.1
E-mail and Scheduling	Outlook
Remote Access	Cisco VPN
Servers	**Standard**
Operating System	Windows 2003R2
Operating System	Linux Redhat 4
Directory Services	Active Directory
Storage	Dell / EMC
Applications Environment	**Standard**
New Application	Web-enabled
Email	Exchange 2003
Database (cost conscious 8-5)	SQL 2005
Database (mission critical 24x7)	Oracle 10g and RAC
LAN/WAN	**Standard**
Cabling	CAT 6 / Fiber / WiFi
Routers/Switches	Cisco
Firewalls	Cisco
Printers/Plotters	**Standard**
Personal Printers	Dell
Network-connected Printers	Dell
Plotters	HP
Imaging Equipment	**Standard**
Imaging Software	Laserfiche
Mid-speed Scanner	HP
High-speed Scanner	Fujitsu
High-Speed Production Scanner	Fujitsu
Geographic Information	**Standard**
GIS Tools	ESRI

Exhibit 5-1. City standards for hardware and software are updated as technology evolves

Technology Replacement Program: Every technology in the City has a lifecycle and a recommended budget for replacement:

Technology Replacement	Life Cycle
Personal Computers	Every 4 years
Servers / Storage	Every 5 years
Network Gear	Every 5 years

Technology Replacement/Life Cycle

Departments are allocated charges for replacement based on the number of desktops in their inventory. Notebook & laptop computers, printers and scanners should be budgeted by City Departments for replacement every 3 years.

Desktop, laptop, and PDA standards are shown in Exhibit 5-3 and Exhibit 5-4. The standards change frequently. A listing of the latest standards is maintained on the City's intranet.

Blackberry 8300 Family

Blackberry
8300 Family

Exhibit 5-3. City employees use Blackberry 8300 PDAs

Laptop and Desktop Standards

Dell Latitude and Precision Laptops

Panasonic Tough Book

Dell Optiplex and Precision Desktops

Exhibit 5-4. City employees have multiple PC choices.

Video Security Solutions are expanding rapidly across the City. A sampling of video security standards is shown in Exhibit 5-5.

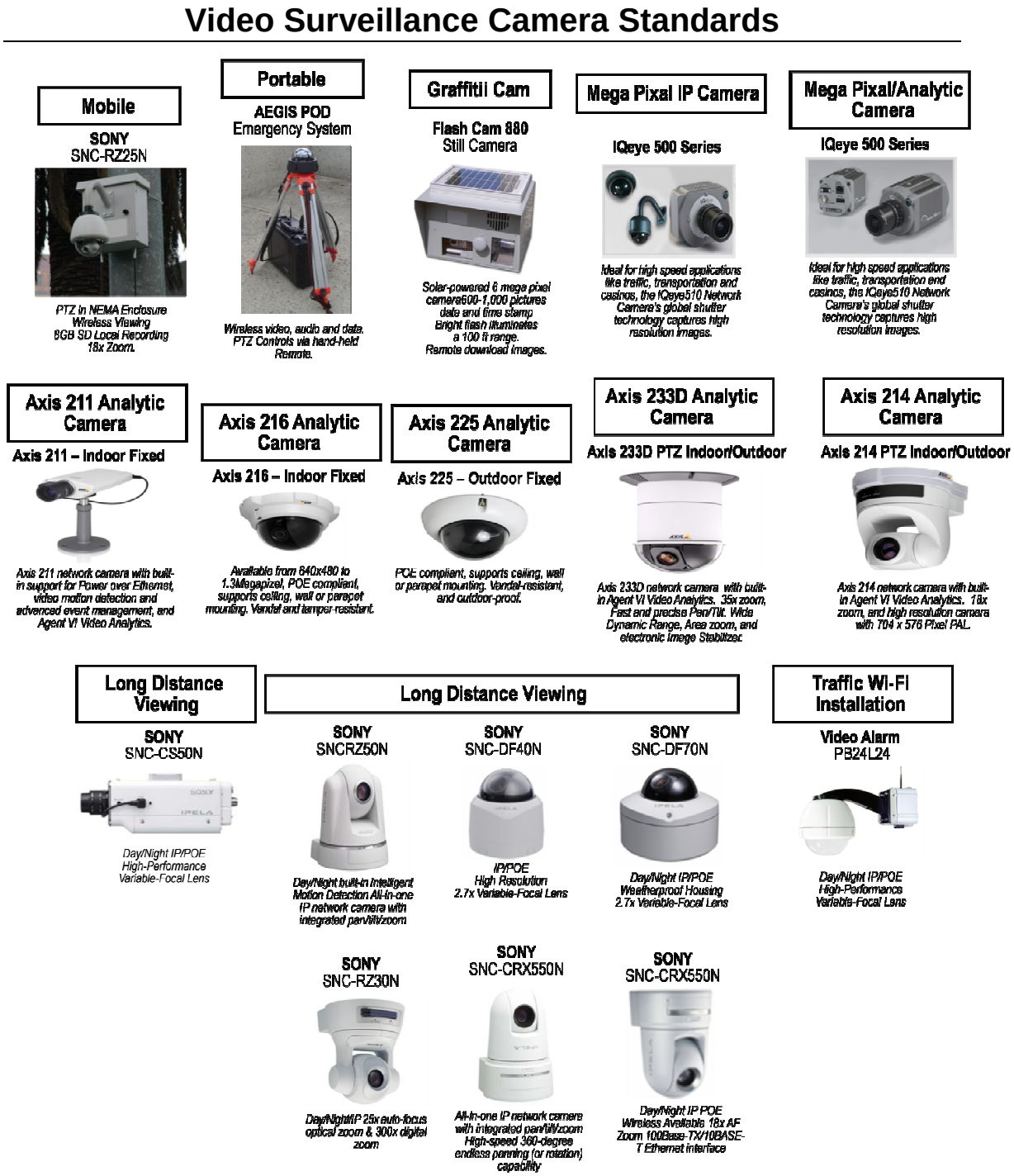


Exhibit 5-5. Video Security Camera Standards.

5.6 Infrastructure

The City has implemented a robust, secure, state of the art IT infrastructure that provides high availability, enterprise wide connectivity and the tools necessary to build, integrate, and easily maintain application solutions. The IT department is continuously evaluating and implementing Infrastructure improvements for the City's data centers, networks, and core enterprise applications.

Data Center. The City's Data Center has gone through a complete remodeling over the past two years. What was once an unmanaged room containing a random mixture of hardware and applications is now an Enterprise Data Center featuring standardized hardware and software providing reliable power, efficient cooling, and stringent physical security for all systems contained within its walls.

The IT Department has added:

- A new generator and uninterruptible power supply system to improve availability of all applications.
- An Oracle Real Application Cluster (RAC) high availability database solution to provide transparent failover, scalability, and fault tolerance.
- New computer racks that hold more servers and save floor space.
- Complete electrical and data rewiring for neat and easy installations and system monitoring.
- Large screen monitors for the call center to display status of critical hardware and software systems.
- Redundant air conditioning systems for improved system reliability and availability

Network WAN/LAN. The City is rolling out high speed fiber communications to all core facilities and a citywide wireless network to enable a variety of new and enhanced services. It is critical that the network is fast, reliable and capable of healing itself in the event of a failure. The IT department is constantly evaluating new ideas for enhancing the network. Last year IT redesigned the Network Operation Center (NOC) to handle increased capacity and future growth.

Major Projects this year include:

- Core Edge and Router/Switch Upgrade to accommodate greater bandwidth demand (from 10Mbps to 10 Gbps)
- Demilitarized Zone (DMZ) to provide a security layer between internet users and the enterprise datacenter
- Enhanced Internet throughput (from 10 Mbps to 50 Mbps)

- Completion of the fiber rollout to City facilities to converge all voice, data and video circuits into fiber.
- Voice Over Internet Protocol (VoIP) telephone pilot to integrate voice and data, improve performance, add function and provide better support
- New network monitoring tools for the wireless network and system wide health check monitoring

The AT&T WiFi network serves as backup to the City's fiber network. The City has the authority to divert all WiFi Traffic for City use in the event of an emergency.

Active Directory. This is the directory structure used to store information and data about networks and domains. It provides the means to manage the identities and relationships that make up the network environment. Active Directory Services are also one of the key components IT uses to build integrated applications.

Over the past year IT finished migrating all Novell clients to Microsoft's Active Directory, consolidated data from multiple file servers into a single file storage system and is now building a single sign-on (One time entry of ID and password) solution to provide user access to all applications they are authorized to use.

5.7 E-Government

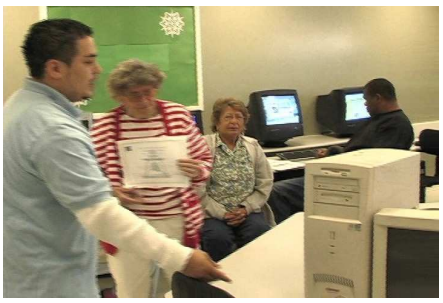
The Department of Information Technology provides "24 hour City Hall" services via the internet, call center and on-call services. IT is "pushing" information over the internet for major projects like reverse 911 to alert citizens about emergencies; using the internet to "communicate" with citizens in order to quickly respond and resolve requests; enabling citizens to make payments and "conduct business" using the internet; and "piloting new ideas" like social networking to learn new ways of improving services.

Other e-government projects implemented include an enhanced property profiler application that lets citizens to use map based technology when applying for permits and developing property, a museum solution enabling American Indian Tribes located throughout the County to perform collection searches using the internet, and a Citywide website initiative that is making it easier for citizens to access City Hall information and services from wherever they choose.

E-government projects are improving efficiency, saving money and enhancing the City's reputation.

5.8 Digital Inclusion

The IT Department is committed to supporting the SmartRiverside Digital Inclusion Program. Riverside's low income families do not normally have the available resources to take advantage of new technologies that can assist in improving their education and overall quality of life. To help bridge this "digital divide" the City of Riverside is offering one of the best digital inclusion programs available in the U.S. through its affiliation with SmartRiverside, a non-profit partner of the United Way.



Smart Riverside's digital inclusion program donates 250 computers equipped with Microsoft Office Software and wireless access devices to low income families in Riverside every month. Recipients can access and use the City's unique free wireless network that covers the entire 55 square mile developed area of the City.

This program is made possible through donations of computers, monitors and other electronic equipment by large local firms, educational institutions and the public; The IT Department's annual fundraising golf tournament; collection and reimbursement for "e-waste"; eBay sales of items with residual value, and Inland Empire Technology week.

Digital Inclusion Staff is comprised of full-time information technology professionals and part time employees provided through the Riverside Project Bridge program. Project Bridge (Building Resources for the Intervention and Deterrence of Gang Engagement) is a gang prevention, intervention, and suppression program, the goal of which is to reduce the incidence of youth gang violence, gang membership and gang related activities in the City of Riverside. The program provides various services to participants between the ages of 12 and 22. Project Bridge management works closely with the City's Parks, Recreation and Community Services Department, IT and ACS in providing work opportunities for participants.

5.9 Operational Efficiency

The IT Department leadership team has one of the finest reputations in local government. They are active in the community, participate in leadership rolls for Industry Organizations, have strong partnership relationships with many of the leading technology corporations and have expert knowledge of City of Riverside business and application processes.

The IT Department has deployed an "Industry Best Practices" Project Management and Department Alignment Methodology in order to efficiently team with city departments and rapidly deliver high quality, integrated solutions on time and within budget.

The Department has selected ACS as its outsourcing partner. ACS is the leading outsourcing company in the Public Sector, has highly skilled resources that are experienced in city government, is client driven, service delivery focused and has the capability to rapidly adapt resources to meet the City's evolving demands.

The IT department has accrued demand for more than 200 IT projects. A majority of them are requests to help improve City department business processes and operational efficiency. Projects are prioritized based on departmental priority and then assigned a citywide priority by the Executive Technology Committee which directs existing resources in the IT department without increased costs to departments.

Section 6 – Major Projects

Working Together with the Same Goals in Mind

Partnering with City Departments to deliver technology based solution that will enhance Riverside's reputation as the economic and cultural center of the Inland Empire and one of America's best places to live, work and enjoy.

Major IT projects for FY08-09 are identified in this section by department. The departments are listed in alphabetical order. For each department we have included a brief description of their mission, some of the ways they are using technology today and their plans for implementing new solutions this fiscal year.

Last year the City of Riverside IT Department delivered more than 50 projects. The Department is currently tracking 250 IT projects and 70 are mentioned in this section. All projects are documented in the IT department's PlanIT project management system which is available on the internet.

CITY OF RIVERSIDE AIRPORT
Welcome to the Future of Corporate Aviation in Southern California

Riverside Airport is one of the largest corporate airports in Southern California. In fact, Riverside Airport compares in size to John Wayne Airport in Orange County with un-congested airspace and easy departures to Arizona, Las Vegas, Mexico and the Western United States.

The Airport is tower-controlled and has complete landing and navigation systems for all-weather conditions, full conference and catering facilities as well as every level of pilot and aircraft service.

The Airport is connected to City Hall via high-speed communication lines and free wireless for access to Riverside's many on-line services, activities, restaurants and points of interest.

The airport uses technology for airport operations, communications, property management, new facilities design, research, client services coordination, video security, and for managing our annual air-show that brings in 70,000 spectators. Visit the Airport website at *http://www.riversideca.gov/airport/*.

Riverside Airport IT projects for FY08-09 include:

Project	Initiative (s)	Description
Website Rebrand	e-Government, Operational Efficiency, Integration	The City is implementing services oriented dept portals to enhance the City's Image, provide a Citywide common look & feel, and make it easy for Citizens to access City Hall anytime from anywhere.
Fiber for Airport & call center	Infrastructure	High speed communications for advanced video, voice, and data apps.
Video Security	Operational Efficiency, Integration	Replace existing cameras to improve function, coverage, other dept integration and add centralized control.
Contract Management System	Operational Efficiency,	Evaluate automated solutions for hanger and land lease contracts.
Phone System Replacement	Operational Efficiency	Begin evaluating alternatives to improve function, performance and support.

The City Attorney's Office provides legal representation and services for the City Council, City officers, and City employees in order that they may lawfully attain City goals and outcomes without undue risk to the City.

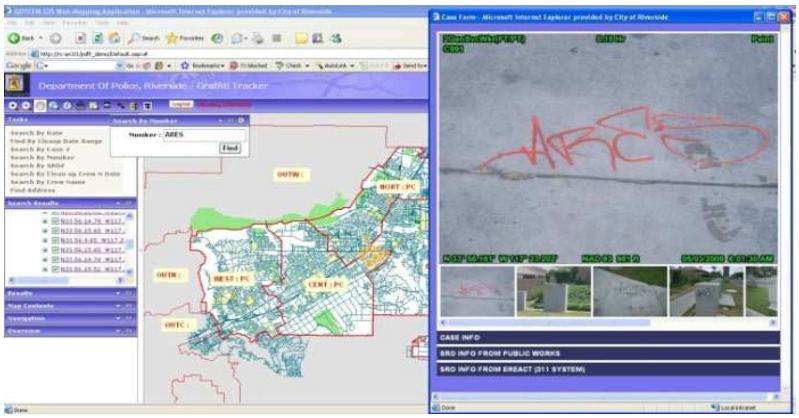
This Office approves the form of all contracts, bonds and certificates of insurance, prepares ordinances & resolutions and acts as General Counsel to the Redevelopment Agency.

The City Attorney has a very close working relationship with all departments, is actively engaged on-site with police in emergency situations, is a key sponsor of the City's highly regarded Graffiti Abatement and Video Security Solutions and regularly collaborates with departments regarding new high technology services for Riverside citizens.

The City Attorney website provides Mayor and Council information, where to get legal help, a history of the departments 100 years of service, the City's privacy policy, and the website disclaimer. It also provides links to City Council Meetings on the web, online documents, and SmartRiverside.

The City Attorney's Office recently implemented a new Litigation Tracking Solution and a Website Linking Policy that communicates rules for non-City information and links on Riverside's Internet site. Visit the City Attorney website at *http://www.riversideca.gov/attorney/default.asp*.

The City Attorney, Police, and Public Works use Riverside's "model" computer based Graffiti Tracking System to quickly clean, pursue and prosecute.



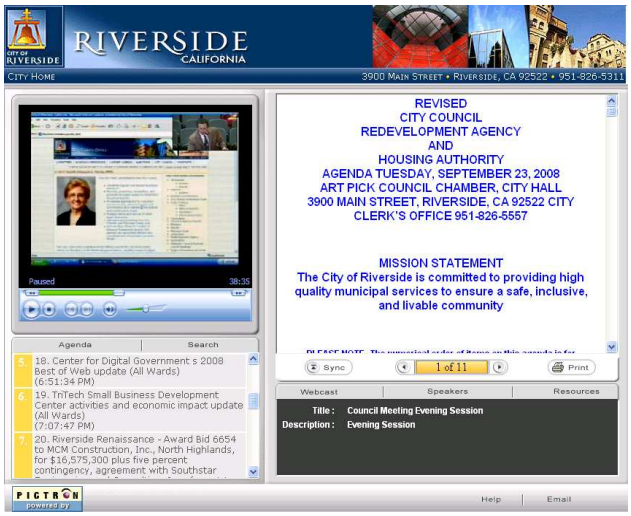
City Attorney IT projects for FY08-09 include:

Project	Initiative (s)	Description
Contract & Records Management Systems	Operational Efficiency, Integration	Collaborate with Parks, Finance, City Clerk and HR on current IT projects being evaluated to improve staff productivity.
Website Rebrand	e-Government, Operational Efficiency, Integration	CA Portal. The City is implementing services oriented dept portals to enhance the City's Image, provide a Citywide common look & feel, and make it easy for Citizens to access City Hall anytime from anywhere.
Wireless Video Security Cameras	Operational Efficiency, Integration, WiFi	Collaboration with departments on the use of low cost wireless and fiber based video security cameras for parks, intersections, railroad crossings, targeted crime areas and facilities throughout the City.
In vehicle video solutions	Operational Efficiency, Integration, WiFi	Collaboration with police and other departments on the use of video systems

The City Clerk is responsible for elections, historical records, board & commission applications, the city charter, the municipal code, conflict of interest statements, accepting legal claims, certifying copies of official records, administering Mayor and Council oaths and affirmations and is Secretary to the Redevelopment Agency.

This Department provides the public with **easy access to a large amount of information**. By visiting the City Clerk website anyone can view records, reports, agendas, minutes, meeting schedules, attendance, bylaws, and more. Website visitors can also view live and archived council meeting webcasts, initiate correspondence, link to citywide services and learn how to apply for volunteer boards & commissions. Visit the City Clerk website at *http://www.riversideca.gov/city_clerk/default.asp*.

In 2007 the City Clerk implemented a solution to provide public internet access to the municipal code, collaborated with the purchasing office in assessing an insurance and contract validation system and began discussions with IT on ways to enhance the agenda manager application.



Search the Municipal Code here:
http://www.riversideca.gov/municode

City Clerk IT projects this year include:

Project	Initiative (s)	Description
Contract Validation System	Operational Efficiency	The City Clerk is collaborating with the Finance Department on an insurance and contract validation system.
Economic Interest Applications	Operational Efficiency	The City Clerk is interested in an automated solution for reporting and tracking statements of economic interest and political contributions.
Laserfiche records management enhancement	Operational Efficiency	The City Clerk is required to destroy documents that are eligible for destruction. This upgrade will automate the process of removing electronic documents as the paper copies are destroyed.

The City Manager, appointed by the City Council, is the chief administrative officer of the City. He enforces the laws and carries out the policies of the Council through the control and direction of City Departments. The **City Manager** makes recommendations to the Council on legislation, fiscal matters, capital improvements and other City policies. It is through the City Manager's leadership that the City has embarked on the most ambitious public investment program in Riverside's history.

***RIVERSIDE RENAISSANCE - "*Investing In Our Future Today"**: Riverside Renaissance is a $1.8 billion investment in Riverside's future. Approved by the City Council in late 2006, Riverside Renaissance is responsible for improving traffic flow; replacing aging water, sewer, and electric infrastructure; and expanding and improving police, fire, parks, library, and other community facilities that enhance the general quality of life for residents, businesses, and visitors.

Riverside Renaissance will ensure Riverside's position as the capital city of the Inland Empire.
http://www.riversiderenaissance.org/

High Technology is engrained throughout Riverside Renaissance. The City Manager chairs the Executive Technology Committee (ETC). At the ETC, Department Directors and the Chief Information Officer review priorities and ensure technology is aligned appropriately with departmental programs and renaissance projects.

City of Awards

http://www.riversideca.gov/awards.asp

The City Manager Website provides information and links regarding City operations, how the City uses internal auditing to ensure services and programs are as efficient and effective as possible and how citizens can communicate concerns online regarding City policy, public safety, legal and other issues. Visit the City Manager website at *http://www.riversideca.gov/manager/*.

Last year the City Manager's office completed web site projects to capture the festival of lights experience in video, to showcase Riverside Renaissance progress and to support our new Inland Empire Technology Week conference at the convention center.

The Festival of lights is the City's signature holiday celebration. ***Check it out!***

http://www.riversideca.gov/arts/fol.asp

This year the City Manager is sponsoring new board and commission websites; supporting the rollout of wireless applications; and prioritizing a host of exciting new projects that will augment city services including the enhanced map based property information system, GIS integration for the traffic management center, and in car computer systems for public safety. Additional City Manager sponsored projects are shown on page 6.26.

Riverside's Community Development Department (CDD) takes great pride in its friendly, highly responsive, knowledgeable customer service and is committed to helping residents and property owners complete building projects quickly.

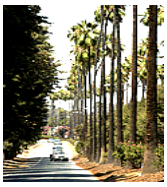
The Building & Safety, Code Enforcement and Planning websites are full of helpful advice, how-to information, forms, project examples and incentive programs that can help improve projects, enhance our city and save owners money. Visit the Community Development website at *http://www.riversideca.gov/cdd/*.

Other CDD uses of technology include an easy to use **map based (GIS) property information system**, an integrated permit system and multiple on-line citizen friendly maps. CDD also uses technology to track and manage historical resources and is continuously evaluating new ways to use technology so citizens can do more transactions on-line, save money and conduct business at building sites instead of at City Hall.

Permit processing

Property Lookup

Code Enforcement



Historic Preservation

Code Enforcement Violations
(Zoom in and take a look)

Last year CDD migrated to a standard word processing system, enhanced the permit system to allow applicants to defer mandatory payments until permit issuance, and began to assess advanced Web, location and GIS based permitting solutions.

Project	Initiative (s)	Description
Enhanced Property Profiler	Operational Efficiency	Web and Map based GIS solution used by the public and front counter employees to view property and related property information for land use planning & zoning, permit processing, and code enforcement.
Granny Flat Reporting	Operational Efficiency	The City is required to report these second units to the California Department of Finance & U.S. Census.
Permits Plus Reporting	Operational Efficiency	Enhanced reporting of all types of permits, sorted as needed, with conditions for approval and status information.
Web Enabling Permits	Operational Efficiency	On line inspections using WiFi.
General Plan Automation	Integration	Allows capability to integrate non-City information into the City's system.

The Development Department is leading the way in making the City of Riverside a leading national economic force. Riverside is now ranked 4th among the Nation's top economic development hot spots, 7th among the Nation's best cities for job growth and 4th among the Nation's cities for use of digital technologies.

The Development Department serves as the marketing department for the City and produces professional materials and advertisements for events and programs such as Digital Inclusion and the Inland Empire Technology Week.

Visit the information rich Development Department web site at *http://www.riversideca.gov/devdept/* to see how Riverside is becoming the Arts and Culture Center of the Inland Empire, how the City is revitalizing neighborhoods, attracting businesses with professional career opportunities and Investing $1.8 billion in Riverside's future to improve the City's overall quality of life.

Check Out This Websites	
Performing Arts Center	http://www.riversideca.gov/arts/fox.asp

This Department has aggressively leveraged technology to make it easy to do business in Riverside and use Development services. There are multiple on-line maps, videos and links to information, an advanced permitting system with fast track permitting assistance, a digital inclusion program for low income families and a network of high technology CEO's (CEO Forum) who are leading the way in helping to make Riverside an innovation hub and launch pad for emerging life science and software companies.

Priorities this year include:

Project	Initiative (s)	Description
Enhanced Property Profiler	E-Government, Integration, Operational Efficiency	Web and Map based GIS solution used by the public and front counter employees to view property and related property information for land use planning & zoning, permit processing, code enforcements and property development.
Website Rebrand	e-Government, Operational Efficiency, Integration	The City is implementing services oriented dept portals to enhance the City's Image, provide a Citywide common look & feel, and make it easy for Citizens to access City Hall anytime from anywhere.
Fiber to Fox Theater	Infrastructure	High speed communications for advanced video, voice, and data applications.
Shop Riverside and other internet integrated campaigns	e-Government, Operational Efficiency, Integration	Provide website enhancements to support the department's radio and TV marketing campaigns.
Avatars	e-Government	Video Introductions on several of the City's web pages provide a high tech introduction to the City's internet pages.

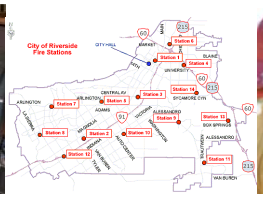
The City of Riverside Fire Department responds to and mitigates fires, traffic accidents, medical aids, and other types of emergencies so that the citizens and visitors of Riverside may be able to survive these unexpected tragedies. Additionally they strive to minimize damage to personal property and the environment. They work to provide the public with timely basic and advanced life support when necessary in order to provide the best possible care to the injured and ill. Every year Fire personnel respond to an average of 26,000 calls. Their Operations personnel and resources are housed in 14 strategically located fire stations, divided into two battalions.

The department provides a reliable, up-to-date source of educational and practical information to both fire personnel and the public. The Fire Prevention Bureau currently enforces California Fire, Building, Electrical, Mechanical and Plumbing Codes in addition to N.F.P.A. Standards and Public Safety Code. The Riverside Fire Department issues 20,000 special event permits every year.

The Department's highly trained workforce is committed to community education and emergency services programs, the progressive use of technology and modern equipment and being fiscally responsible.

The Fire Department website has a large amount of educational information regarding fire prevention, emergency planning, earthquakes, storms, hazardous materials, bees, and heat & cold conditions. The site also has interesting photos, Fire Department history, a newsletter and the annual report. *Visit the Fire website at http://www.riversideca.gov/fire/.*

Last year, the Fire Department successfully implemented an Emergency Medical Dispatch (EMD) System. This software facilitates the process for dispatchers and 911 call-takers to evaluate and diagnose medical emergencies over the phone. Included is an interface between the City's Motorola CAD and EMD systems. Recently Fire installed mobile data computers in vehicles. They provide Fire units the ability to access department and City resources wirelessly, including through the internet using the City's WiFi network. In 2007/2008, Fire began accessing City video security cameras and also started rolling out high-speed network access to all stations using City fiber.



Major technology projects this year include the use of wireless broadband cards for vehicles and personnel outside of the City, completing fiber access to all Fire stations to improve network connectivity, utilizing the Reverse 911 system in the new Emergency Operations Center, use of remote/wireless systems for Fire premise inspections, improvements to NFIRS reporting, implementation of a video streaming system for training, utilization of ESRI based systems for production of maps and books, a system to document and track EMS activities, and upgrades to FireView, training tracking and RMS systems.

Ready Riverside Emergency Management Disaster Preparedness

Riverside Fire Department major projects include:

Project	Initiative (s)	Description
Reverse-911	Operational Efficiency	Proactively alert residents and businesses about emergencies and call out Fire personnel.
Upgrade City Hall and EOC Core and Edge network routers and switches to 10GB	Operational Efficiency	Improve speed, performance, security and manageability of the enterprise network.
Implementation of fiber access to all Fire stations	Operational Efficiency	Improve network connectivity and access to computer applications.
Use of remote/wireless systems	Operational Efficiency	Provides local access to system resources for activities such as Fire premise inspections.
Improve NFIRS reporting capabilities	Operational Efficiency	Improve method of incident reporting to State.
MDCs with WiFi access	WiFi, Operational Efficiency, Integration	Allow Fire units the ability to access department and City resources wirelessly including the internet.
Use of the City's video security cameras	Operational Efficiency, Integration, WiFi	Ability to see firsthand situations from a central location.
Use of GPS/AVL	Operational Efficiency	Provide dispatch with the ability to identify lowest response times for service.
Use of wireless broadband cards for vehicles and personnel outside of the City	Operational Efficiency	Allows for internet and network access wherever Fire resources are deployed.
Implement a video streaming system for training	Operational Efficiency	Fire can conduct training to all personnel simultaneously from a central location.
Utilization of ESRI based systems for production of maps and books	Integration, Operational Efficiency	Use newest technology for creating maps and map books.
System to document and track EMS activities	Integration, Operational Efficiency	Provide the department with the ability to analyze department EMS activities.
Upgrade current FireView system	Integration, Operational Efficiency	Upgrade the system to analyze data from the dispatch and records management systems using mapping technology.
Upgrade training tracking system	Operational Efficiency	Reduce errors and improve ability for multiple users to track training activity.
Upgrade of RMS system	Operational Efficiency	Provide a more fire-centric system that will improve Fire's ability to analyze. incident information

The City of Riverside Finance Division manages the City's revenues, expenditures, investments, purchasing, accounting, budgeting, and debt. They are also responsible for billing, collection, cash and risk management.

Finance leverages technology in a number of ways to conduct City business and account for an overall budget of almost $1 billion. Their website is full of useful information, forms and links to sources and uses of funds, the city's budget, how to do business with the City, business license & startup tips, workers compensation and more. Visit the Finance website at *http://www.riversideca.gov/finance/*.

The Purchasing Division is a national leader in the use of internet technology. Purchasing provides online registration, opportunity searches, paperless bidding, bid results and helpful information on what the City buys, how it buys and how company's can review their competitiveness.

Last year the Finance Division implemented a City Wide Electronic Change Order solution that significantly improved productivity and delivery times by allowing departments to process PO change orders online. The Division also implemented citywide procurement cards so departments can make routine purchases quickly without the need to generate costly POs and expense claims.

Finance technology priorities this year include:

Project	Initiative (s)	Description
Accela Wireless for Business Tax	Wi-Fi, Operational Efficiency	Wireless connectivity will give business inspectors in the field real time access to the City's business tax system.
AP Process Redesign	Operational Efficiency, Integration	This is a re-engineering of the entire accounts payable process within the City including centralized receipts, invoice matching & imaging, exception routing and automated distribution & posting.
Automated Exp Claims & Cash Advances	Operational Efficiency, integration	Automate cash advances, expense accounting, and employee reimbursement processes.
AR Collections Redesign	Operational Efficiency, Integration	Automate manual processes including payment matching to invoice, payment arrangements and reconciliation.
Employee Online over the Internet	Operational Efficiency, e-Government	Provide Employee On-line (pay history & employee information system) access for all employees, from anyplace, at any time.
Surado CRM Upgrade	Operational Efficiency	Automate current labor-intensive case tracking procedures for Business Tax & Collections.

The General Services Department is responsible for the City's Property Management, Fleet Management, Building Maintenance and Publishing Services and support for every City Department in all 133 facilities. They are environmentally conscious in everything they do. In 2007 General Services was recognized by the SCAQMD for their innovation and excellence in helping to develop our regional hydrogen vehicle clean air program.

***General Services is High Tech*!**

Three years ago the City's TV channel displayed power point messages. Viewers interested in City services, projects and decisions today are provided with full motion video of council proceedings, coverage of major events and activities, Renaissance project updates and a host of informative news stories about City of Riverside services. All this is provided by **General Service's Advanced Video and Image Studio** located in the City Council Chamber. They also integrate productions from Riverside Today, the Press-Enterprise and a host of media sources.

General services video productions are an entertaining and news-providing highlight of the City's award winning internet site. They regularly collaborate with the IT Department web services team. Their creations can be seen on almost every City web page. All clips provided on the charter cable and AT&T U-Verse stations are posted online for view on demand on the City internet pages and are also loaded on YouTube.

Last year General Services completed the 7th Floor **Grier Pavilion** Project. Designed as an outdoor theater and to encourage public access to City Hall, the Pavilion is a perfect place for special events. General services built-in portable computer kiosks and large screen monitors so visitors can view historical and other information in this unique setting with panoramic views of the City.

The department also upgraded the Honeywell Badge Access system so it can be controlled over the internet. This system controls physical access to doors in city facilities. The system was moved to the secure enterprise data center with full backup and UPS system connectivity to improve efficiency and ensure buildings are accessible during power outages.

General Services has installed high definition **"Big Screen" technology** in every department and in the Starbuck's Cafe. These are being used to show council proceedings, news events, City activities, vendor presentations, application demonstrations, to educate employees and to highlight City services.

This year, General Services is installing "Big Screens" outside the entrance to City Hall for automated public viewing of council and other agendas, wireless video cameras at the Corp yard and facilities throughout the City and they hope to upgrade air conditioning and heating systems to internet solutions. The Department will also upgrade the City's Fleet Management System to provide enhanced functionality and improve support, install a generator in IT to enhance availability of all enterprise applications and will evaluate ways to provide one-stop publishing. Additional General Services IT projects are included on page 6-26.

The City of Riverside offers some of **THE BEST JOBS and benefits** available. Where else could you live within an hour of beach, mountain and desert communities, in the heart of one of Southern California's economic and cultural centers, choose from dozens of career paths and retire with an income stream that is among the highest available anywhere.

America's Most Livable Communities

In 2005, Riverside was recognized as one of **America's Most Livable Cities** by the Partners for Livable Communities (a national non-profit organization) based on attractive places to live, work, play, visit, retire, raise a family, attend a university, grow a business, and enjoy diversity criteria. Open the doors to the HR department and you are immediately greeted by smiling friendly faces, a team of highly skilled experts, an HR support structure that is second to none and technology everywhere.

Human Resources uses big screen technology to introduce people to HR services; a PC learning center for demonstrations, tests and training; and a computer based visitor center for online job searches, application submissions and links to useful information. The department places very high priority on technology based process enhancements and online employee self-service in order to conduct business as efficiently as possible while helping achieve City financial goals.

The HR website is loaded with job, benefit, compensation, health, policy, training and career development information. Visitors can find job openings, internships, volunteer opportunities, forms, health plans, retirement information and maps to points of interest. There are also dozens of easy to use links to all kinds of information about living and working in Riverside. Visit the HR website at *http://www.riversideca.gov/human/*.

Welcome to the City of Riverside's Open Enrollment Online

HR has recently implemented new solutions for managing leaves of absences and online employment applications and has initiated projects that will provide online training management, personnel requisitions for hiring departments and enhanced employee health benefit self-service.

Welcome to the City of Riverside's Online Employment Center! **Job Openings**

Major Human Resources projects for FY08-09 include:

Project	Initiative (s)	Description
Benefits Open Enrollment On-Line	Operational Efficiency, e-Government	Implement the on-line health benefits enrollment module of the Citywide Integrated Finance System (IFAS) to provide employee self-service, workflow routing & approvals, and HR reporting.
Demilitarized Zone (DMZ) for Internet Applications	E-Government, Security, Implementation	Provide a layer of security between internet users and Riverside's internal computer environment to protect our core systems and databases from external threats. The goal is to locate all web servers in a separate & secure rack environment in the City Hall Datacenter.
Employee On-Line over the Internet	Operational Efficiency, e-Government, Security	To give employees on-line access to pay and personal information via the internet. This will save money, improve staff productivity and enable other application opportunities.
Automate and integrate two on-line Test Administration systems	Operational Efficiency	Automating and integrating the two online test administration systems will allow more efficiency in the work environment.
On-line Department Personnel Requisitions	Operational Efficiency, Integration	Implement a solution to allow departments to make changes to personnel requisitions online.
Employee On-boarding	Operational Efficiency	On–boarding expedites the hiring process by integrating on-line applications with HR processes and automating the many HR forms required to complete the hiring process.
Discipline & Grievance Tracking System	Operational Efficiency	Implement an online solution for documenting and tracking employee grievances and disciplinary action.

The mission of the Riverside Public Library is to circulate books and other library resources, promote personal competency in seeking and evaluating information and present quality programs in a welcoming environment to the residents of the City of Riverside so that they may become productive participants in the literate society.

The library supports the circulation of a collection of 1.2 million magazine and book items to over 180,000 active borrowers. The library currently has 230 public access computers enabling socio disadvantaged residents computer and internet access. New library branches will be providing additional public access computers with the addition of Orange Terrace, Arlanza Cybrary and the expansion of the Marcy Branch Library. Cybrary branches provide digital resources to residents of the community.

The Riverside Public Library strives to be a leader and innovator technologically providing one-on-one internet homework assistance, online manuals, multi-media databases and a small business resource center. According to Webtrends report, the library webpage had 7,929,258 hits from 7/1/07 to 6/30/08.

The library, in conjunction with Information Technology Active Domain Administrators, is creating a domain structure using configuration manager for the public PC's. This will allow for better control maintaining the PC's used by the public. The Network Division has created a model for the public on the City backbone. This has resulted in increased response time and higher availability. Access the library online at http://www.riversideca.gov/library/.

Public safety, as well as the safety of staff and collections is a high priority. IT has successfully deployed video security equipment to many of the library facilities and is currently working to equip facilities in construction. Library, IT and Public Safety have the ability to view the various camera shots live and review archived digital recordings providing an added level of security.

With the addition of the upcoming Smart Money Manager, library patrons will have the ability to pay library fines and fees with a credit card, either in person, at one of the automatic payment machines or via the Internet through an e-commerce module.

This year's major IT projects include:

Project	Initiative (s)	Description
Millennium Library System to Linux	Operational Cost Savings	Migrate Millennium Library system to virtual server environment. This will improve performance, availability and support.
Public Active Directory	Operational Efficiency	Enable technical staff to make necessary upgrades, patches and fixes via network tools.
Point of Sale	Operational Efficiency	Automated solution for payment of fines will eliminate the need for cashiers at all library locations. This will enable customer self-service payments at the library or elsewhere using the Internet.

Mayor Ron Loveridge is the official spokesman for the City. His role is to reach out to members of the community, encourage agreement and good will at City Hall, and represent the City on intergovernmental matters. He has been Riverside's Mayor since 1994, served on City Council from 1979 to 1994, is currently the 2nd Vice President for the National League of Cities and Chairman of SmartRiverside. He has a Masters Degree and Ph.D. in Political Science from Stanford University and has been a professor at the University of California, Riverside since 1965.

Mayor Kicks off IE Tech Week 2008

Going Green

Diversity

IE Tech Week is designed to put the spotlight on the Inland Empire as Southern California's emerging hub of high technology. This four-day event was hosted by SmartRiverside, an initiative launched through Mayor Loveridge's High Technology Task Force, to bring the best of high tech thinking and technology to Riverside and the Inland Empire. The event featured 500 registered attendees and an expo of 50 technology vendors.
http://www.riversideca.gov/mayor/ietechweek.asp

The Mayor's goals as Chairman of **SmartRiverside** are to attract and retain High Technology companies to the City of Riverside, build a smarter Riverside through Citywide free wireless internet access, increase the technology literacy of Riverside through Digital Inclusion and foster technology innovation in Riverside. ***http://www.smartriverside.com/***

The Mayor's website is designed to identify policy initiatives and to highlight success stories for a 21st Century City. The site has information about the popular Mayor's Night Out "Traveling Town Hall" Program, the Human Relations Commission, International Relations, the Riverside Youth Council, Clean and Green Riverside, a listing of the many High Technology companies in Riverside and can be used as ***a Gateway to California State Government.***

Watch the Mayor's Night Out Video: -http://www.riversideca.gov/mayor/MNOVideo.asf

The mayor is committed to finding new ways of encouraging public access to City Hall. Outside his office is the new Grier Pavilion. The Pavilion is open to the public, has panoramic views of the City and is a terrific site for a special event. Technology is built into the Pavilion. Computer kiosks and 3 high-definition "Big Screen TV's display historical and other information about the City in this unique outside setting.

This year the Mayor is challenging IT to explore new "social networking" Internet technologies. Over 25 million professionals already use these tools to connect with colleagues, exchange information, and find people that can help achieve goals. Other priorities of high importance to the Mayor include projects that will utilize the citywide wireless network for improved services, systems to enhance communication with the City's 27 neighborhoods and a new CEO task force to explore alternatives for attracting businesses and residents to the City. Additional Mayor sponsored IT initiatives are on page 6-26

The Riverside Metropolitan Museum is a center for learning and a community museum that collects, exhibits, and interprets cultural and natural history. In a rapidly changing community, the museum provides an understanding and appreciation of our region's legacy.

The museum provides stewardship of two National Register Historic buildings and one National Historic Landmark building. Most importantly, the museum acts as caretaker for a significant artifact collection of more than 80,000 objects representing the cultural and natural history of the region. This would not be possible without the integration and maintenance of a bar coding system and database for cataloging collections.

Utilizing technology to enhance visitor access to museum information and streamlining operations are departmental goals. Visit the Museum website at *http://www.riversideca.gov/museum/* for local history, natural sciences and upcoming events. Various teacher, student and researcher resources are available on the website, providing further access to the cultural and natural history of the Riverside community.

In the FY08-09 timeframe, the Museum expects to implement the NAGPRA WEB (Native American Graves Protection and Repatriation Act). This implementation will provide a password protected website for the Curator of Anthropology to facilitate virtual consultation with a large number of tribal entities located throughout the U.S. This application will allow the Museum to comply with pending Federal legislation regarding NAGPRA online access.

Additional Museum IT projects for FY08-09 include:

Project	Initiative (s)	Description
Website Rebrand	e-Government, Operational Efficiency, Integration	The City is implementing services oriented dept portals to enhance the City's Image, provide a Citywide common look & feel, and make it easy for Citizens to access City Hall anytime from anywhere.
Video Security	Operational Efficiency, Integration	Replace existing cameras to improve function, coverage, other dept integration and add centralized control.
GIS Day	Integration, e-Government, WiFi	Host the City's GIS day for hundreds of residents and children. This IT project shows how the City uses integrated map based technology to improve the productivity of all departments in delivering citizen services. The program is also intended to generate excitement about the museum and GIS technology.

Parks, Recreation and Community Services are on the next page

Their are 52 parks and many of them have community, youth, senior and sports centers. These are beautiful places for after school fun, a family picnic, learning about computers, having a business meeting, enjoying friends, taking a class, going for a swim and a myriad of other activities.

The Parks, Recreation and Community Services Department has been improving and modernizing parks as part of the City of Riverside Renaissance Program and they are investing in technology to make the parks excellent centers for learning. They have also provided a public transportation solution to help get citizens to and from the parks, a reservation system so the facilities people want are available when they need them and video security to help keep the parks safe.

The Parks website is full of information, pictures, maps and videos about activities, events and learning opportunities: *http://www.riversideca.gov/park_rec/*.

Activity Guide

Check out all of this season's activities!

Community Center Computer Labs / Learning Centers: Computer labs are available for use to assist with homework, Internet access, tutoring, and much more.

The Community Centers also use the computer labs to train low income families. Upon completion of an 8 to 10 hour class, families are given wireless computers with Microsoft software as part of the SmartRiverside program that is helping the City bridge the digital divide.

52 parks, 10 community centers, 7 pools, and evening lighting

The Park's community centers have high-speed fiber communications for very fast computer access. This year the Department will use the City's new wireless network to install low cost security cameras in the parks, control ball field lighting remotely and provide free-online computer access to residents. They also have plans to automate thousands of drawings for safekeeping and easy access, enhance their Recware facility reservation and Routematch software programs and assess the feasibility of automating their contract management process.

Parks and Recreation FY08-09 IT projects include:

Project	Initiative (s)	Description
Contract & Records Management Systems	Operational Efficiency, Integration	Collaborate with City Clerk, finance, and City Attorney to implement an automated workflow solution for managing similar contracts for 50 park locations (contractor panels).
Citywide Free Wireless Network (WiFi) Implementation	e-Government, WiFi, Operational Efficiency	Implement new solutions for security, asset management and internet access leveraging the City WiFi network
Musco WiFi Lighting for Ball Fields	Operational Efficiency, Wifi	Implement a low cost wireless solution for ball field lighting.
Drawing Conversion	Operational Efficiency	Identify a solution to automate (for safekeeping and easy access) the more than one thousand PRCS drawings.
Recware enhancements	Operational Efficiency	Functional improvements for the PRCS facility reservation system.
Fiber	Operational Efficiency	High speed communications for advanced video, voice and data applications.
Digital Inclusion Training	e-Government, WiFi	Provide training centers and certified trainers for the digital inclusion program and collaborate with project bridge advisors in recruiting potential City and ACS employees
Routematch	Operational Efficiency	Implement a solution for residents that need transportation to and from park facilities.
Activity Guide Integration	e-Government	Implement a web-based solution that integrates the online activity guide with class schedules.

The Riverside Police Department (RPD) provides the reactive services necessary to ensure public safety as well as a wide array of proactive community based policing and problem-solving services that have earned them the reputation as a ***best practices model organization.***

It is a priority of the Department to promote a commitment to excellence, continued education, technology advancements and the ongoing development of comprehensive data collection programs.

The Police Department is leveraging high technology in patrol cars, neighborhood stations, training facilities, mobile command centers, dispatch, crime labs, administrative offices, in partnership with city departments, through links to State and Federal Agencies and to continuously be in touch with our citizens.

RPD's website is robust. At the site you can report a crime or traffic problem, get crime statistics for property you're thinking of buying or renting, access the Megan's Law database, view map based property information, apply for a job, review volunteer opportunities, pay for a parking ticket, get answers to a host of frequently asked questions, find resources, communicate with the Chief, and more. The site also has links to business & economic information, City services, things to do and the Chief's report. Visit the RPD website at *http://www.riversideca.gov/rpd/*.

Police priorities include targeted enforcement, traffic safety and flow, graffiti prevention, enhanced records management, improved field based reporting and improved process flow within the department.

Recent technology implementations in support of these initiatives included a technology replacement program for in-car mobile data computers; mobile video security cameras for targeted crime areas; a new crime watch website for enhanced community policing and community leader communications; implementation of a map based integrated Graffiti Tracking and Removal Solution, an Automated License Plate Video Security System and in-car video cameras for patrol vehicles.

Major Technology Projects this year include a Reverse 911 solution to proactively alert citizens about emergency situations and provide the department with the ability to mobilize teams quickly; in car video; low cost wireless video cameras for targeted programs; enhancements to existing records management, administrative and graffiti applications; increased storage for the department's growing accumulation of incident data; and communication system enhancements to improve collaboration with regional agencies.

Major RPD IT project in FY08-09 include:

Project	Initiative (s)	Description
Reverse-911	Operational Efficiency, e-government	Proactively alert residents and businesses about emergencies and call out Fire personnel.
Citywide 4.9 GHZ Public Safety Wireless Network	Operational Efficiency, Infrastructure	Higher speed Public Safety communication network to enable officer use of in car computer and other broadband communications technologies.
Implementation of fiber access to all Police facilities	Operational Efficiency, infrastructure	Improve network connectivity and access to computer applications.
Staffing software to improve allocation of resources	Operational Efficiency	Analysis to provide optimal deployment of RPD resources.
Electronic access for CPRC to IA files	Operational Efficiency, e-government	Improve communications with CPRC. Provide Community Police Review Commission access to Internal Affairs Files.
Use of evaluation and testing software for Dispatch candidates	Operational Efficiency	Allow for improved screening of candidates to improve quality of personnel and employee retention.
Automated training tracking system	Operational Efficiency	Improve internal process for requesting and tracking training requests.
Automated Internal Affairs investigation process	Operational Efficiency	Improve internal process for initiating and tracking internal investigation.
Integration of LEAD with other City systems	Operational Efficiency, Integration	Law enforcement administration database (LEAD). LEAD tracks employees from application through hiring, training, promotions, etc. Integration with the HR sigma and other systems will reduce duplicate data and effort.
MDCs with WiFi access	WiFi, Operational Efficiency	Allow Police units the ability to access dept and City resources wirelessly including the internet.
Use of video security cameras	WiFi, Operational Efficiency, Integration	Ability to see situations from a central location.
In-vehicle camera systems that capture incidents on video media	WiFi, Operational Efficiency	Provides the ability to capture video images of events in the field for future playback.
Access to regional data warehouses of crime information	Operational Efficiency, Integration	Provides ability to access and share data with other regional agencies.
License plate scanning system	Operational Efficiency	Provides ability to quickly identify vehicles of interest.
Portable ID system	Operational Efficiency, e-Government	Provides ability to scan fingerprints in the field.
Graffiti tracking system	Integration, Operational Efficiency	Provides ability to identify and analyze graffiti incidents in the City.
Evaluation of replacement of existing RDLAP network	Integration, Operational Efficiency	Upgrade the system to analyze data from the dispatch and records management systems using mapping technology.
Upgrade LaserFiche system software	Integration, Operational Efficiency, Standards	Move to latest version to allow for implementation of new FBR system.
Upgrade of servers and storage systems	Infrastructure, Operational Efficiency, Security, Integration	Provide for new data storage system to allow for effective and secure storage of data.
Upgrade of RMS system	Infrastructure, Operational Efficiency, Integration	Provide a new system that will improve PD's ability to analyze incident information.

Riverside Public Utility (RPU) is delivering high quality reliable electric and water service, exceptional customer care and very low rates to our residents and businesses.

In 2008 RPU was recognized with the APPA Reliable Public Power Designation and Platinum Award, named among the Top 10 U.S. Solar Utilities and as a State leader in the use of renewable resources (Green Power). It's Water Theater Program has been viewed by more than 1 million students and has received the National Freedom Foundation Award for community service.

311 Call Center (826-5311) *Non-Emergency City Services*

RPU places very high priority on using technology to continuously improve operational efficiency and customer service. Their web-site has many helpful links to rebate and incentive programs; billing, payment and turn-on services; annual reports; public meeting schedules; home and business energy calculators; conservation tips and more. Visit the RPU website at *http://www.riversideca.gov/utilities/*.

Last year, RPU successfully completed and implemented several technology projects including WaterTrax for water quality lab test result reporting, AppWorks automation to improve nightly Utility Billing (CIS/Banner) batch processing efficiency, Dynamic Reporting for integrated IFAS (finance) & SPL (work order) information, and Internet/VPN access to Riverside's Market Power Exchange application for the City of Azusa.

Major Technology Projects this year include a Reverse 911 system that will proactively alert residents and businesses about power outages and other emergencies and a 311 Customer Relationship Management system that will provide access to RPU and City Hall services around the clock, improve efficiency, and increase the quality of response to customers. Reverse 911 will have an easy to use map based (GIS) interface and the 311 system will be web enabled to allow residents to report issues and get updates over the internet.

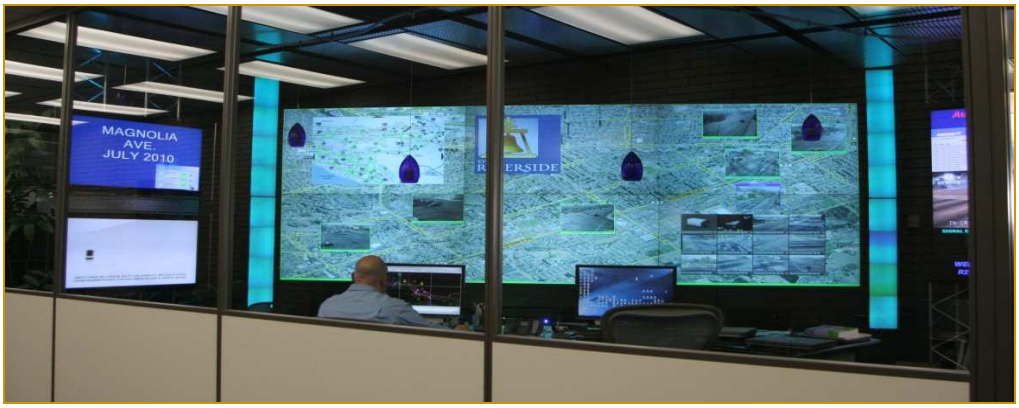
Riverside Public Utility Major IT projects for FY08-09 include:

Project	Initiative (s)	Description
Reverse 911 System	Operational Efficiency, e-Government	Proactively alert residents and businesses about power outages and other emergencies
311 CRM	Operational Efficiency, Integration, e-Government	Enhance 311-Call Center's business process efficiencies and quality of response to customers
Banner Upgrade to v 3.2	Operational Efficiency	Replace the current version which has reached "end of life" and provide additional functionality and features
GO165 Underground Asset Inventory & Inspections	Operational Efficiency	Provide the ability to capture, maintain, & inspect Electric Utility underground facilities, and then validate and upload this asset information to SPL, per the state-mandated GO165 asset inspection & maintenance requirements for Electric Utilities
GO165 Overhead Asset Inventory & Inspections	Operational Efficiency	Provide the ability to capture, maintain, & inspect Electric Utility overhead facilities, and then validate and upload this asset information to SPL, per the state-mandated GO165 asset inspection & maintenance requirements for Electric Utilities
Remote Water Level Readings	WiFi, Operational Efficiency	Enhance field operations productivity and reduce costs by remotely monitoring water levels at designated water wells from a central site, using the city's WiFi technology
Remote Monitoring of Capacitor Banks	WiFi, Operational Efficiency	Enhance field operations productivity and reduce costs by remotely monitoring voltage levels of installed capacitor banks from a central site, using the city's WiFi technology
UOC Video Security	Operational Efficiency, Integration	Upgrade current outmoded video security environment at UOC and integrate to City's enterprise video security system
SPL Enhancements	Operational Efficiency	Expand the use and capabilities of SPL in the areas of asset inventory management (including meters, transformers, & streetlights), work order planning and construction tracking, timekeeping accounting, and enhanced end-user reporting. Utilize MS SQL Reporting to eliminate costs for additional Crystal Reports licenses
nMarket – Power Commodity Exchange	Operational Efficiency	Enhancement initiatives including remote access and services to the City of Azusa, increased data exchange efficiency by implementing a T1 line between the OSI and Riverside, and implementation of a redundant application infrastructure environment to provide high system availability
CIS/Banner – Operations Automation (AppWorx)	Operational Efficiency	Automated the manual batch processing operations procedures for CIS/Banner in order to streamline productivity and reduce utility billing processing errors
PU Finance - Dynamic Reporting Tool	Operational Efficiency	Provide a dynamic reporting tool for PU Finance to enhance information modeling and data analysis capability for accounts receivables, consumption and charges, customer deposits, and other areas
RAC Cluster	Infrastructure, Operational Efficiency	Migrate core systems to a cluster environment to provide for growth and high availability.
RouteSmart for Field Services	Operational Efficiency	Improve meter reading, billing, collections and other processes by optimizing field service schedules and routes.
NCR Remittance Processing Enhancement	Operational Efficiency	Upgrade the NCR Remittance Processing System to accept mail-in credit card payments via automated optical recognition software.

PUBLIC WORKS DEPARTMENT

The City of Riverside Public Works Department enhances the quality of life for city residents and businesses by operating and maintaining the city's streets, trees, landscape, wastewater, storm drain and refuse systems.

This department designed and implemented our City's ***Advanced Traffic Management System, one of the most impressive high technology projects in Riverside.*** Residents, students and organizations from all over the Country visit the Traffic Management Center (TMC) on a regular basis to see how the department uses this system to view and manage intersection and railroad crossing traffic flow and emergencies in real time.



The Public Work's Internet site provides valuable tools and information to citizens, contractors and visitors. Residents can find information about trash pickup schedules, urban forestry, weed abatement, street-sweeping schedules, recycling services, safety programs for children, bike plans, air quality initiatives and downtown parking. Contractors and engineers can easily find online survey and land records, drawings and forms, and can access information from related agencies. Visit the Public Works website at *http://www.riversideca.gov/pworks/default.htm*.

Most recently Public Works successfully implemented a wireless parking meter system that is powered by solar antennas and processes multiple types of payments including coins and credit cards. They also implemented ***one of the most advanced integrated Graffiti Tracking and Abatement Solutions in the U.S.*** Workers remove graffiti within 24 hours, document removal costs via special digital GPS cameras and share the information with the Police Department and City Attorney for crime analysis, prosecution and offender fee collection.

This year Public works will continue to place high priority on improving citizen services by leveraging technology in every aspect of their business. Priorities include TMC expansion via low cost wireless video cameras and analytics; a vehicle locator solution (GPS) and route optimization for fleet operations; permit system enhancements; CADME (map based eng & design) improvements, asset management for street & sewer services; and SCADA (wastewater control system) analytics.

Major Public Works IT projects for the coming year include:

Project	Initiative (s)	Description
TMC GIS Pilot	Operational Efficiency	Map based solution to integrate the multiple applications used in the Traffic MGMT Center.
Wireless Video Security Cameras	Operational Efficiency, WiFi	Low cost wireless video security cameras for our intersections, targeted graffiti areas and facilities throughout the City.
Gap Analysis: Storm Water, Collections & Wastewater	Operational Efficiency	Identify a solution for automating the SWC&W asset management process.
OPS 32 to OPS SQL	Operational Efficiency	Automate the collection and input from numerous instruments and analyzers located throughout the Public Works Water Quality Control Plant by integrating the SCADA system with a new OPS SQL solution. This application is used for daily operations, regulatory reports and comprehensive analysis.
CADME Viewer replacement pilot	Operational Efficiency	Begin the process of replacing the core map based (GIS) computer aided design and mechanical engineering solution with an Industry "Best Practices" supportable solution that is easy to use and integrates with Citywide applications.
RouteSmart optimization	Operational Efficiency	Implement RouteSmart function for street sweeping and refuse route optimization.
Security Cameras for Parking Structures	Security, Integration	To monitor public areas for safely and to detect/act upon vandalism threats.
Website Rebranding	e-Government, Operational Efficiency	Service driven enhancement to provide information, images, videos, forms and links for residents and commercial users. Support 24 hour city hall with engineering drawings, permit info, household programs and more.
Automated Vehicle locator	Operational efficiency	Implement a GPS/AVL Solution for trash, street sweeping and other vehicles to enable real time vehicle location and improved response to Citizen requests for service.
Interactive Voice Response System (IVR)	Operational Efficiency, e-Government	Implement an IVR solution for inspections, encroachments, tree service & others to be defined.
GAT- Phase 2	Operational Efficiency, e-Government, Integration-	2nd phase of the Graffiti Application providing multiple department reports.
Permits Plus enhancements	Operational Efficiency, Integration	Integrate the SPL work order mgmt system and Permits Plus.
SPL automation for Wastewater Division	Operational Efficiency	Identify a GIS based solution to automate asset and work order management.

City Manager and Mayor Supported IT Projects that benefit all departments for FY08-09 include:

Project	Initiative (s)	Description
Board & Commission Websites	Operational Efficiency, e-Government	Implement Web Portals on the City Web site for Boards and Commissions.
Citywide Free Wireless Network (WiFi)	e-Government, WiFi, Operational Efficiency	Implement new solutions for security, traffic, asset management and internet access.
Integrated GIS solutions	e-Government, WiFi, Int Operational Efficiency	Provide map based integrated solutions for property (Enhanced Property Profiler), Traffic (TMC), emergency mgmt (R911) and core City systems.
In-Vehicle Solutions	e-Government, WiFi, Int Operational Efficiency	Video security, asset tracking, code enforcement and route optimization solutions for police, fire, CDD, Public Works and Gen Services vehicles.
Single Sign-On (IFAS)	Operational Efficiency, Integration	Provide a single sign-on ID and Password that will provide easy access to all authorized City applications. This ease of use solution will enhance productivity of all users while maintaining a high level of system security.
New Generator for the IT Enterprise Datacenter	Operational Efficiency, Infrastructure	Install a generator to provide a 48 hour window for power outage recovery. This will allow ample time for IT to appropriately respond to incidents and avoid unnecessary and lengthy outages. This will significantly improve the availability of all enterprise applications.
IT Disaster Recovery Plan	Operational Efficiency	Implement a hot site and disaster recovery plan for the City's Integrated Finance & Accounting (IFAS) and Customer Information Systems (Banner).
SharePoint – Eforms	Operational Efficiency, E-Government	SharePoint is a tool that is included with the Microsoft Office suite of Products. This tool provides the ability to create web portals and electronic forms quickly and easily.
Reporting Data Warehouse (IFAS, Banner, SPL, PP, all)	Integration	Enables self-service report generation from a data warehouse that has data sourced and combined from multiple database systems.
Dual ISPs	Infrastructure	Dual Internet service providers (ISPs) provide the City with redundant access to the Internet. Primary 50 MB fiber link with10 MB backup path.
Migrate MS Applications to MS SQL-Server	Standards	The City has standardized on SQL Server in place of Access for custom data base systems to support the departments.
Fiber to all City Facilities	Infrastructure	High speed communication for video, voice and data applications.
PBX Replacement with VoIP	Infrastructure	The City is beginning to evaluate the Voice over internet Protocol (VoIP) alternatives to replace the existing telephone system.
Website Rebrand	e-Government, Operational Efficiency, Integration	The City is implementing services oriented department portals to enhance the City's Image, provide a Citywide common look & feel, and make it easy for Citizens to access City Hall anytime from anywhere.

Appendix A - City Applications

Server Applications	Description	Vendor
Access Control System	Badge Access	Honeywell
ACCESS Power Management	Building / Lighting Automation	Siemens
ACES	Energy transaction management system	SunGard / Altra
Acronis True Image	Desktop image build	Acronis
Adventix	PO Fax tool	STR Software
ANI/ALI	911 Call Exchange Switch	AT&T
Antivirus	Virus protection software	McAffee
Applicant Tracking (AMS 5)	Applicant Tracking	SIGMA
AppRiver	Email Filtering / Virus protection	SecureTide
AppWorx	Job scheduling and business process automation software	AppWorx Corp.
ARC / GIS	GIS tools and query	ESRI
Argus Collection Management System	Museum collection management system	Questor Systems
Asset Solutions	Fleet management	Maximus
Audit Control Language (ACL	Data analysis , audit and reporting	ACL Services
AutoCAD	Drawing software	AutoDesk
Banner CIS	Customer Information System	Ventyx / SCT
BEAST	Integrated Property and Evidence tracking system	Porter Lee Corp.
Bind View	Policy and Compliance Management	Symantec
BlueCoat / Sophos	Security tools	Accuvant
BMC IT Service Support (previously Magic)	IT service request tracking	BMC Software
Business OpsCenter	In/Out Electronic Message Board	Audama Software, Inc.
Business OpsCenter	In/Out Electronic Message Board	Audama Software, Inc.
CAFR Software	Finance GASB34 reporting	Tyler Technologies
CAL Legal Sourcebook	Educational and reference tool for law enforcement	CopWare Corp.
Checkpoint	Network Security	Network Vigilance

Server Applications	Description	Vendor
Citrix	Remote access tools	Cyrstal Network Systems
CityLaw	Litigation research and case management tools	Cycom Data Systems, Inc.
Computer Aided Drawing and Mechanical Engineering (CADME)	Computer drawing and geographic mappin	Internal Development
CORE / One Step	Cash receipting system	Core business Technologie
Credit Card Processing	Credit card processing tool	CORE Business Technologies
Credit Cart Verification	Credit Card verification	I/C Verify
CreditWatch	Credit Card verification	Equifax
CrimeView	Crime Analysis Records Management	The Omega Group
Cry Wolf	False Alarm Billing	AOT Public Safety Corp.
Crystal Reports	Reporting Software	Business Objects
Digital Inclusion Tracking	Database to track digital inclusion families	IT Internal Dev.
Dataquick	Property / Parcel /Owner Information	DataQuick
Disk Xtender	Data compression	EMC
Document Management	Document scanning and index software too	Laserfiche
Docupresent	Bill Formatting	SkyWire Software (previously DocuCorp)
Email Delivery	Email subsystem services	GovDelivery
Email Xtender	Email compression	EMC
eReact	Customer Relationship Management	Automated Business Syster and Services (ABSS, Inc.)
Exceed	Connectivity Software	Hummingbird
Exchange	Email Administration	Microsoft
FastImage	Remittance Processing	NCR
Fastrack	Insurance Certificate Tracking	CG-One
Fire View	Fire Analysis	The Omega Group
FireZone	Pre-fire planning and drawing	The CadZone
FirstLogic	Address Sorting	Business Objects
Funk Software Oddysey Client	Network Access Security Solution	Accuvant (Juniper)
Geo-SCADA	SCADA Sanitation	Wonderware

Server Applications	Description	Vendor
GeoSmart	Mapping tools	MoosePoint Technologies
Government Business System	Cost allocation calculation system	Government Software Systems (GSS)
GovWebCast	Video webcasting tool	Pictron
Graffitti Tracking System	Grafitti tracking database	IT Internal Dev.
Human Resource Regulation Documentation	Regulation Documentation	J.J. Keller
IDS Workgroup	Informix Dynamic Server (IDS) mgmt tool	SunGard BiTech
Infrastructure Asset Management	Pavement and street management system	Vanderhawk Consulting LLC
Integrated Financial and Administrative Solution (IFAS	Financial, Payroll and Human Resource Systems	SunGard Bi-Tech
Interactive Voice Response (IVR)	Interactive voice response (permitting)	Selectron
Juke Box Manager	Data manager for juke box storage	Linera Systems
LaserCam	Red Light Photo Enforcement	RedFlex
LaserficheDocument and Records Management Version Web Access / WorkFlow / Desktop	Imaging, document management, and Aud Storage (PD)	Compulink
Lead	Police Administration Database	Most Wanted Software
Legato	Optical scanning	Optical Laser
Lift Text Transcoder	Mobile assessibility	UsableNet
M4-Garage Management	Fleet management	Maximus
Magic (BMC)	IT service tracking tool	Remedy / BMC Software
MapObjeccts	Desktop mapping and GIS tools	ESRI
Maps	National mapping query	Thomas Bros
McAfee Antivirus	Antivirus software	McAfee
MDC GII	In-vehicle Video	Coban
Merant Professional	Security software	Serena (Merant)
MetroScan	Map query tool	First American Real Estate
MicroFocus	Programming tool	SunGard Bi-Tech
MicroPaver	Pavement management software	American Public Works

Server Applications	Description	Vendor
		Association
Milennium	Library Cataloging, Circulation On-Line / Public Access	Innovative Interfaces
Monarch	Electric SCADA	Open Systems Internationa
MV90Xi	Internal load data collecting system	Itron, Inc.
MVRS	Electric and Water Meter Reading	Itron, Inc.
NetBackup	Data backup tools	Veritas
NetMotion Mobility XE	Secure remote access tools	NetMotion Wireless
NetPro Mgmt Suite	Security and compliance tools	NetPro
NiceVision Alto	Digital and audio Recording	Nice Systems
nMarket	Utility bidding & scheduling	The Structure Group
nMarket California	Utility bidding & scheduling	The Structure Group
nMarket ISO Middleware	Middleware tool	Fortech
nMarket MRTU	Utility bidding & scheduling	The Structure Group
OmniCast 4.0	Video Surveillance Camera Management and Archiving	Insight Video Net
One-Step	Cashiering	Core Business Technologie
Outlook	Email Manager	Microsoft
Parking Meter	Parking meter citations	Ventek
PastPerfect Museum Software	Museum Collections Management	PastPerfect Software
PBX	City-wide telephone switch	MA/COM
PBX - 911	Multi-storage location information	Teledyne
PC Charge	Credit Card verification	ChargePC.com
Permits Plus	Permits / Business Tax Processing	Accela Inc.
Permitting	Permits / Construction	EdgeSoft
Pictron VideoGateway	City Council Internet Broadcasts	Pictron
Pierpoint	Sanitation Pipeline Video	Piplelogix
Pioneer	CD jukebox storage	Linera Systems
Primavera for Public Sector	High-end, complex project management tools	Primavera Systems, Inc
PrintTrakCAD/PMDC	Computer Aided Dispatch – Police, Fire an PU – Hosted	Motorola

Server Applications	Description	Vendor
Property Profiler	Property information	IT internal dev.
Proventia Internet Web Servic	Web services	IBM Internet Security System (ISS)
Q Publishing	Web page and publishing tool	Quantum Art
QuicNet/4	Traffic management software	McCain Inc.
Rennaisance	Worker's Compensation	David Systems
RouteSmart	Routing software	RouteSmartTechnologies
Safari	Parks and Recreation Class Registration an Facility Reservations	RecWare
SCADA	Sanitation / Water monitoring	ABB Spider
Secure Site Pro	Secured site seal and program certificates	Verisign
SecureTide	Email Filtering	AppRiver
SmartFilter	Security tools	Secure Computing
Serena PVCS Professional	Software configuration management tools	Serena Software Inc.
Server Express	Performance tools for high-volumee transaction processing	Microfocus
SharePoint	Web portal and work flow software	Microsoft
Skyline Commercial	Property and Lease Management	SS&C
SmartFilter	Network Filtering	Secure Computing
SmartNet	Network monitoring tools	Cisco
SPL Work Order and Asset Management	Work Order and Asset Management Tracking	Oracle / SPL World Grou
SpySweeper	Internet monitoring	Webroot Software
SQL Diagnostics Mgr	SQL performance monitoring software	BB Technologies
SQL Reporting Services	Reporting tools for SQL	Microsoft
StormWatch	Intrusion detection software	Okena / Cisco
Surado CRM	Contact relationship management and tracking	Surado
Surf Control	Internet monitoring	CDW-G
Synergix	Engineering scanning module for engineering printing	Xerox
System Management Server (SMS)	Change and configuration management tools	Microsoft

Server Applications	Description	Vendor
Telestaff	Staff scheduling	PDSI Software
TrendMicro	AntiVirus scanning / tools	Software Spectrum
Veritas Backup Exec	Backup software	Symantec
VisionRMS	Public Safety Records Management	VisionAir
VMWare	Virtual machine management	EMC
Warehouse Building Data Quality	Data warehouse tools	DLT Solutions, Inc
WebServer	Web tools for financial system	SunGard BiTech
What's Up Gold	Network monitoring software	Super Warehouse
WISE IP Platform Software	IP tools	NCR
XP-SWMM	Hydraulic modeling software	Wade & Assoc. (CH2MHi