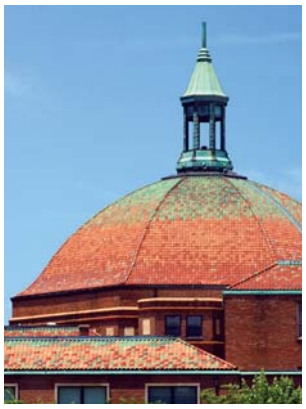

Information Technology Services

2009 Annual Report

CITY OF ASHEVILLE
NORTH CAROLINA

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Director's Message

2009 was a year of great change at our organization, both internal to IT Services as well as at the City as a whole.

IT chose to re-organize to reflect what is not only a growing trend with our department, but a world-wide trend: a reliance on IT services that come from outside of many organizations' data centers. Dubbed by the press as "cloud computing," this trend is just another step forward in a technology lifecycle that has moved from centralized mainframes to distributed PCs to an increasingly mobile and tech-savvy workforce that wants data available anytime, anywhere. Cloud computing, like all much-hyped trends, has its benefits and pitfalls. Our customers in line departments, citizens, and our city council can depend on us to help them walk through this brave new world as it unfolds.

Changes at the organization included a newly-elected city council, and a significant change in the way the organization does business. Over the past year, our Business Technology Improvement Project (BTIP) implementation introduced significant organizational change to our line departments. Changing the way you do business is never easy, even when the change is for the better and provides more automation and efficiency. I applaud the leadership of our city management team in making this change possible. I also applaud the men and women on city staff for working to implement a new software system on-time and on-budget, an almost unheard-of feat in the world of complex Enterprise Resource Planning (ERP) applications.

Change is only possible when trust exists. Through quarterly reporting, good communication, and accountability, we do our best to earn trust every day, not just with our stakeholders, but among our internal teams as well. It's because of this earned trust that we can focus on our core business: customer service. First, foremost, and always, IT is a service business.

With continued economic stressors both in our community and our nation, we can expect continued change. But all of our customers can expect us to continue to earn their trust. They can rest assured that we will continue to use the resources that we have to meet their priorities in a way that meets our core values of customer service, professionalism, expertise, stewardship, and quality of life for all.

Sincerely,

Jonathan Feldman, MSM
Director, Information Technology Services
City of Asheville, North Carolina

Mission

Information Technology Services strives to provide excellent customer services by providing quality technical deliverables with a high level of professionalism and responsiveness. We adhere to principles of technical and fiscal stewardship with an end goal of a high quality of life for employees and citizens.

Core Values

Customer Service
We will provide customer service in a responsive and timely manner.

Professionalism
We will interact courteously, ethically, and with commitment to continuous improvement.

Stewardship
We will earn trust by practicing fiscally responsible management that ensures system integrity and availability.

Expertise
We will be advocates for our customers by developing and maintaining competence and knowledge.

Quality of Life
We will recognize the importance of balancing the relationship between quality of work and quality of life.

A VISION FOR A BETTER FUTURE.

IT Services will be considered a credible and effective business technology service organization by our customers. Our impact on the business we serve will earn the respect of our peers. We will be busy but not frantic, allowing for planned and quality work.

Strategic Goals

Business Focus

Ensure that technology services are focused on business requirements of City Staff and citizens; follow on successes like mapAsheville to automate other City processes to save labor, improve efficiency, and reduce expenses.

Organizational Development

Pursue organizational development strategy, including staff industry certifications and industry accreditation.

Security & Reliability

Significantly improve security and reliability by modernizing data center & data handling practices.

Quality & Timeliness

Utilize test environment and automated deployment system to ensure that quality, timely IT products are received by users & citizens.

Measurement & Action

Monitor and act on metrics regarding work load, capacity, and network health to enable proactive management of resources.

Selected achievements towards these goals may be found throughout this annual report with the symbols associated with the goal.

Project Highlights 2009

Business Technology Improvement Project

Selected achievement area:

The City of Asheville's Business Technology Improvement Project (BTIP), like many large transformation efforts, is a multi-year effort that began with assessment and design, continued with implementation, and will continue to have a continuous improvement lifecycle after implementation.

The project seeks to make significant and systemic changes in how business technology is utilized to support government and citizen business. The foundation system, supporting key financial and human resource management functions across the City, provides an open platform to integrate other, future technology investments that the City may require to meet business needs. Prior technology systems were mainframe-based and proprietary, and were either expensive or impossible to interconnect with.

Improved financial controls, budgetary tools, and ability to more discretely track transactions are all of appreciable value to the community as a whole.

Citizens, the primary customer of the City, will realize efficiencies in the utilization of services provided by the City of Asheville and will have better access to information. Improved financial controls, budgetary tools, and ability to more discretely track transactions are all of appreciable value to the community as a whole. Paperless processes, over time, will save paper as well as labor.

The 2009 calendar year saw the kick-off of the first of three software and business process implementation phases.

The first phase, which included budget, general ledger, purchasing, inventory, and contract management, was completed under budget and on time for January 4, 2010 activation, an achievement that citizens and staff alike can be proud of.

New Web Filter

Selected achievement area:

New web filtering software saved the city $5,000 in maintenance costs this year. The new software has also provided more management reporting tools and added features for finding spyware and antivirus software 'on the fly'. The web filtering software was placed on a virtual server platform allowing the city a reduction in physical servers. This is a move that, industry-wide, has been proven to create efficiency and lower costs.

Business Focus | Organizational Development | Security & Reliability | Quality & Timeliness | Measurement & Action

Phone System Improvements

Selected achievement area:

2009 was the year that our voice over IP system (VoIP) needed significant improvements in order to stay reliable, stable, and able to support new telecommunications needs. Several system improvements were completed to not only ensure that our system stays at a supported version, but also to ready the system for e911 enhancements. The system also required updates in order to fully support new Federal daylight savings time standards.

New VoIP Phone

Automated Systems Deployment

Selected achievement area:

The IT Services department deployed a systems appliance which simplified, sped up, and reduced the cost of deploying software images to the computers we administer. This appliance allows us to automatically deploy images to servers, desktops, and laptops with the help of an easy-to-use Web-based User Interface. The images can contain operating systems, applications, drivers, and any other software that needs to be deployed which offers us a quicker process of managing remote units and saves significant staff and customer time. As IT service requests have risen, this automation is a key strategy in servicing these requests with the same staffing level.

Asheville Police Department – New Laptop Deployment

Selected achievement area:

In addition to the yearly average of one hundred PC replacements, the Support staff replaced over 100 more laptops for the Asheville Police department due to their four year lifecycle. These semi-ruggedized laptops offered the police department up to date software and hardware that is durable, faster and more reliable for them in the field.

Asheville Police Department

Parking Garage System

Selected achievement area:

IT staff provided connectivity to parking decks, allowing the parking decks to be unattended. This connection allowed for a robust and flexible payment acceptance system that accepts credit/debit card payments. The system provides tremendous convenience for our citizens while saving significant staffing dollars at the decks.

Server Virtualization Project

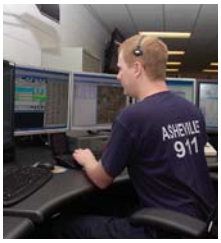
Selected achievement area:

As part of the City's goal to be the southeastern leader in clean energy and environmental sustainability, the ITS department started identifying energy reduction strategies and cost savings to reduce energy expenses. One way we have started implementing this cost savings is by replacing physical servers with virtual servers. In 2009, as a test deployment, we eliminated two physical servers by consolidating three physical servers onto one virtual server. This is the first of many upcoming consolidations of physical servers to virtual servers in our ongoing energy saving initiatives.

Consolidation of Emergency Services

Selected achievement area:

The IT Services department worked with Asheville Police, Buncombe County Sheriff, Buncombe County IT, and Emergency Services to successfully consolidate all dispatchers into one physical building. This physical move provided interagency communication and cooperation and hastened response times to critical incidents.



Consolidated Emergency Operations Center

Haw Creek Fire Station

Selected achievement area:

In 2009, the City of Asheville assumed responsibility of the existing Buncombe County Haw Creek Fire Station. The IT Services department supported this effort by implementing MOSCAD, an extensive fire station alerting system that reduces alerting delays from 90 seconds to 8 seconds. IT also assisted with associated computers, phones, and traditional IT infrastructure at the Haw Creek station. This provides overlapping coverage in some parts of East Asheville, which allows for quicker fire response, a tremendous benefit for our community.

The IT Services department supported this effort by implementing MOSCAD, an extensive fire station alerting system that reduces alerting delays *from 90 seconds to 8 seconds.*

Business Focus | Organizational Development | Security & Reliability | Quality & Timeliness | Measurement & Action

Developmental Services Center (One Stop Shop)

Selected achievement area:

One critical project of 2009 was the relocation of many departments to a centralized Public Works location for enhanced customer service to citizens and developers. Citizens were provided the ability to perform business at a single location for all their development permitting needs including Fire, Water, Building Safety, Planning, and Engineering. IT's role in rapidly deploying infrastructure and end user devices helped to save our citizens and developers time and energy in coordinating and keeping projects on schedule.

Automated attendant/answering system

Selected achievement area:

Efficiencies were created when an automated answering service system was installed for the Parks & Recreation Department as well as the Purchasing Division. This provided each department with better response time for citizens.

Security Cameras

Selected achievement area:

Cameras recently installed at Stevens Lee Recreation center provide additional public safety to Citizens in the central district of Asheville.

Process Improvement

Helping people through technology initiatives

Knowledge Sharing & Staff Training

Selected achievement area:

IT Employees facilitated several classes for City Staff this year. In order for the City of Asheville to operate in a dynamic technology environment, ITS employees must complete many hours of training yearly and even monthly. In the year 2009, IT Services employees completed an average of 152 hours per quarter in training and professional development, or an average of 32 hours per employee.

Help Desk Upgrade

Selected achievement area:

An upgrade to IT Services' automated Help Desk software enabled staff to not only track everyday work requests, but to begin tracking projects as well. Large projects encompass one master work order with several working parts assigned as child work orders under the master. By tracking projects this way, statistical results in time, date ranges and staff assignments give management the opportunity to easily see the 'total picture' of all work involved for specific projects. In addition, better reporting on work allocation offers ITS and City management a tool for better decision making capabilities.

Help Desk Staff assisting an employee within the city's Water department

Systems Management Appliance

Selected achievement area:

The IT Services department now has the ability to manage its assets via the deployment of a System Management Appliance. This systems management tool offers various methods for managing inventory and deploying software, updates, and files to computers on our network remotely. Not only is this another time-saver for staff and customers, but by keeping up to date with software updates, we are able to avoid reported software problems system-wide. Automation also generally allows for systems to be less variable and more standardized, allowing for more effective security management.

Cell Phone Savings

Selected achievement area:

The IT Services department evaluated the organization's citywide utilization of cell phones and restructured the rate plans to take advantage of a $60,000 reduction in annual costs.

Focus Area: GIS and mapAsheville

mapAsheville Achievements

Selected achievement area:

Our mapAsheville program (essentially a brand name for the work that is done in our Geographic Information Systems group in collaboration with line departments) works to make our GIS program more business focused and efficient. In particular, programming that is done with GIS is re-used in many ways to benefit both citizens and internal departments.

2009 celebrated mapAsheville's third year in a row of winning a major award. In 2007, the program's "Development Mapper" application won the Marvin Collins Outstanding Planning Award for Innovations in Planning Services, Education, and Public Involvement. In 2008, the "Priority Places" application won the International Economic Development Council's new Media Award. And in 2009, the City of Asheville received the Herb Stout Award at the 2009 NCGIS Conference in Raleigh, NC. This award was created to honor exemplary use of GIS in local government. Our nomination was based on our development of a framework for a set of web-based GIS applications that are comprehensive, cost-effective, sustainable, and easily deployable. Our GIS applications include citizen facing applications such as the Development Mapper, Priority Places, and Crime Mapper. Internally-facing applications use the same framework as externally-facing applications. The internal city organization also benefits from the program, and saves significant staff time by the automation of time consuming chores such as accident reporting.

In 2009, the City of Asheville received the Herb Stout Award at the 2009 NCGIS Conference in Raleigh, NC. This award was created to honor exemplary use of GIS in local government.

Because the mapAsheville framework is modular, future needs of citizens, departments, and our City Council can be deployed relatively quickly and inexpensively.

Geographic Information System Street Centerline Improvements

Selected achievement area:

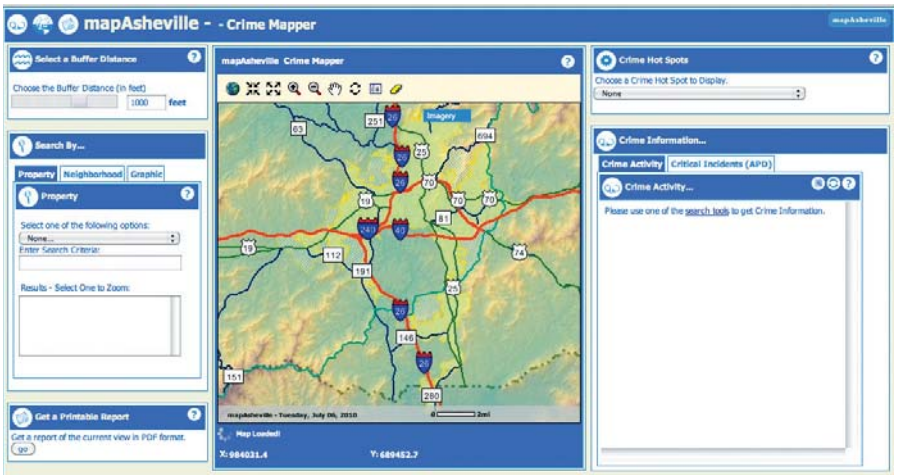
In 2009, we made great improvements in our street centerline range data. The GIS/ mapAsheville program embarked on fixes of all the identified gaps in the address ranges within the City. Along with these corrections, we linked many wrongly or unlinked structure points to the correct centerlines. The e911/Computer Aided Dispatch system relies heavily on the centerline ranges, so this effort has improved our ability to accurately dispatch emergency response in the City. The public works department, as a heavy consumer of GIS data, also benefits from these improvements.

Business Focus | Organizational Development | Security & Reliability | Quality & Timeliness | Measurement & Action

Parcel Identification Number (PIN) Conversion

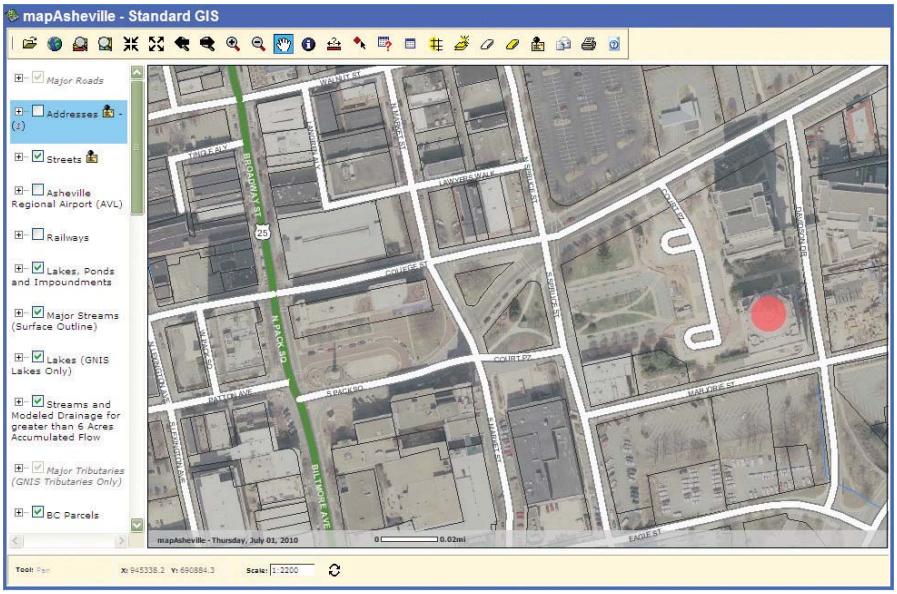
Selected achievement area:

Buncombe County changed coordinate systems from NAD (North American Datum) 1927 to NAD 1983. This coordinate system change created a shift in the County's data which in turn changed pin numbers for parcels. The City's data was already based on the NAD 1983 coordinate system, so this change helped us to share each other's data more easily. In partnership with Buncombe County staff, the ITS department successfully responded to the County's new physical format change of all parcel identification numbers by updating the PINs in its legacy systems. This new ten digit pin with a five digit extension provides a more stable system for our citizens and allows for more detailed entry about specific types of property in the tax system such as condos, leaseholds, mineral/air rights, real estate, mobile homes and many other categories.



Crime Mapper screenshot

City Water staff utilizing GIS field systems as they work on water pipeline

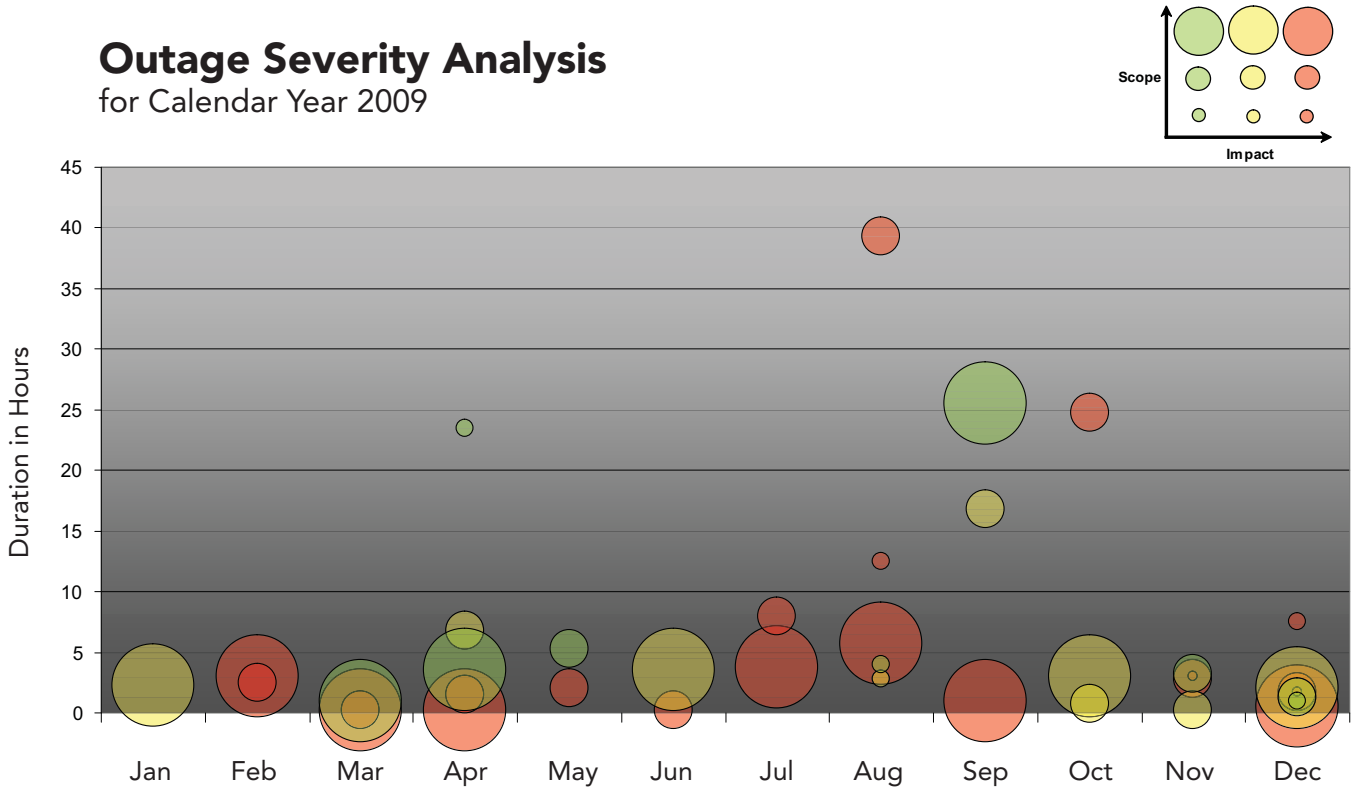


mapAsheville screenshot

GIS & Applications Manager, Jason Mann

Issues & Opportunities

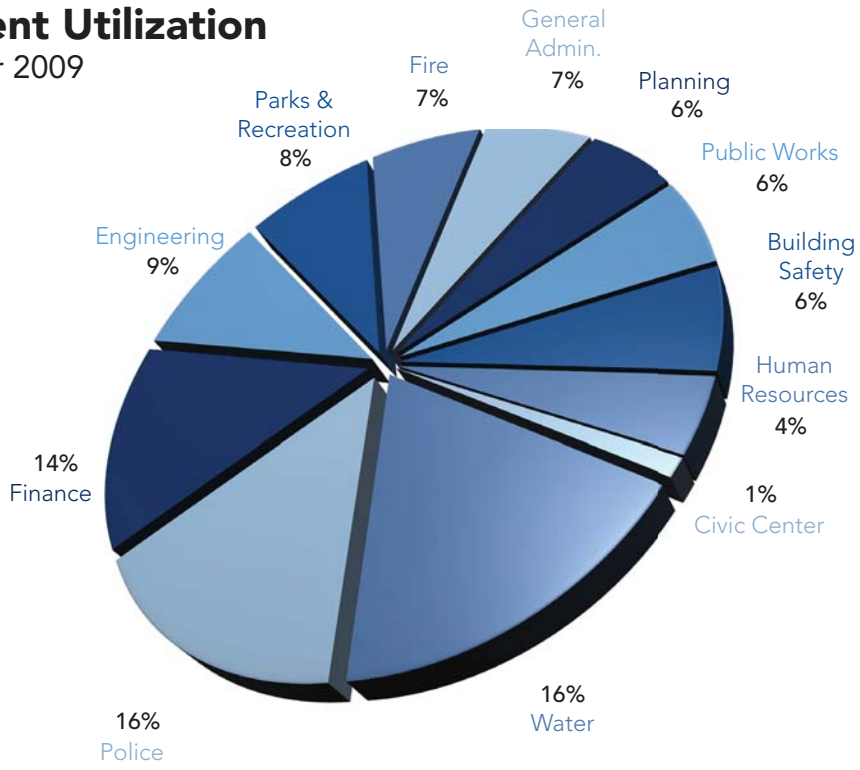
Back in 2007, IT Services started to measure what we call "human metrics" of downtime. "System metrics" — which are what IT departments typically measure — tell us how we have impacted the system. Our "human metrics" tell us how we have impacted the customer. We measure in real time between an incident and its closure. We feel that this is the best way to measure business impact.



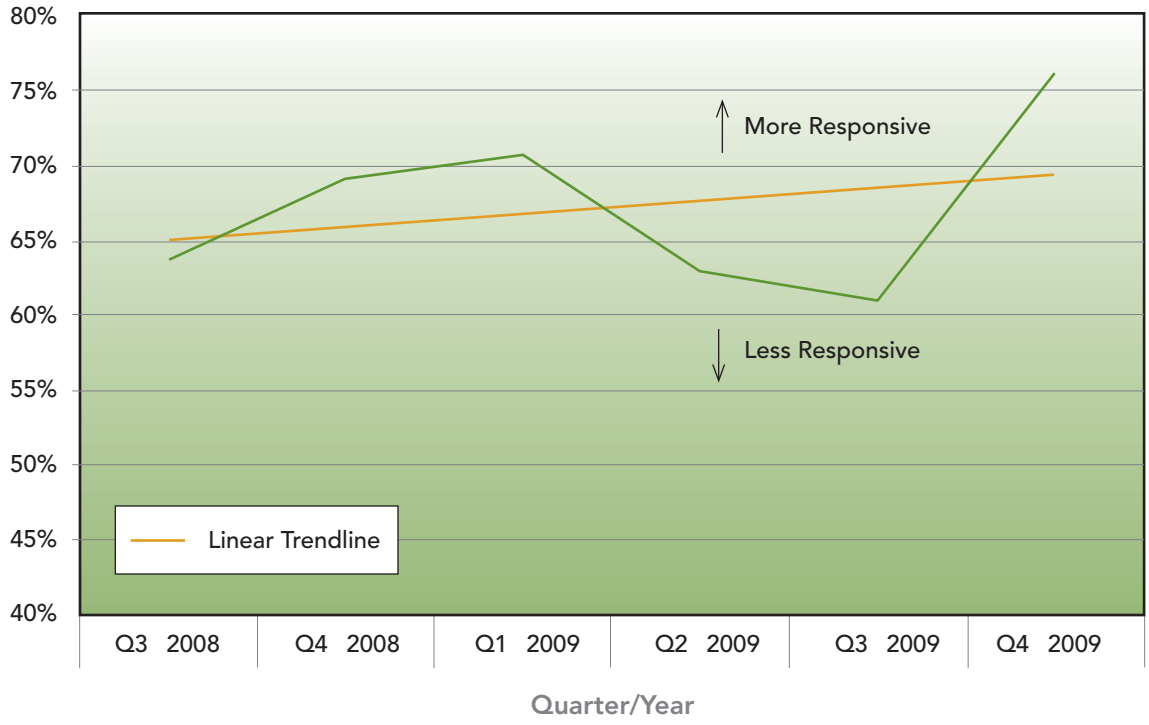
By the Numbers

Number of cell phones, PDAs, and air cards:	648
Radios managed:	1,000
Number of IT Employees:	17.5
Network Servers managed:	66
Number of VoIP Devices:	900
Number of City Employees Full Time: Part Time:	 1,075 595
ITS Budget as a percent of the City's Operating Funds:	1.8%
Number of desktop & laptop computers managed:	850
Average Work Orders completed monthly:	972
Number of printers managed:	400
Average number of SPAM blocked weekly:	85,000
Average number of emails checked for viruses weekly:	600,000

IT Department Utilization
for Calendar Year 2009

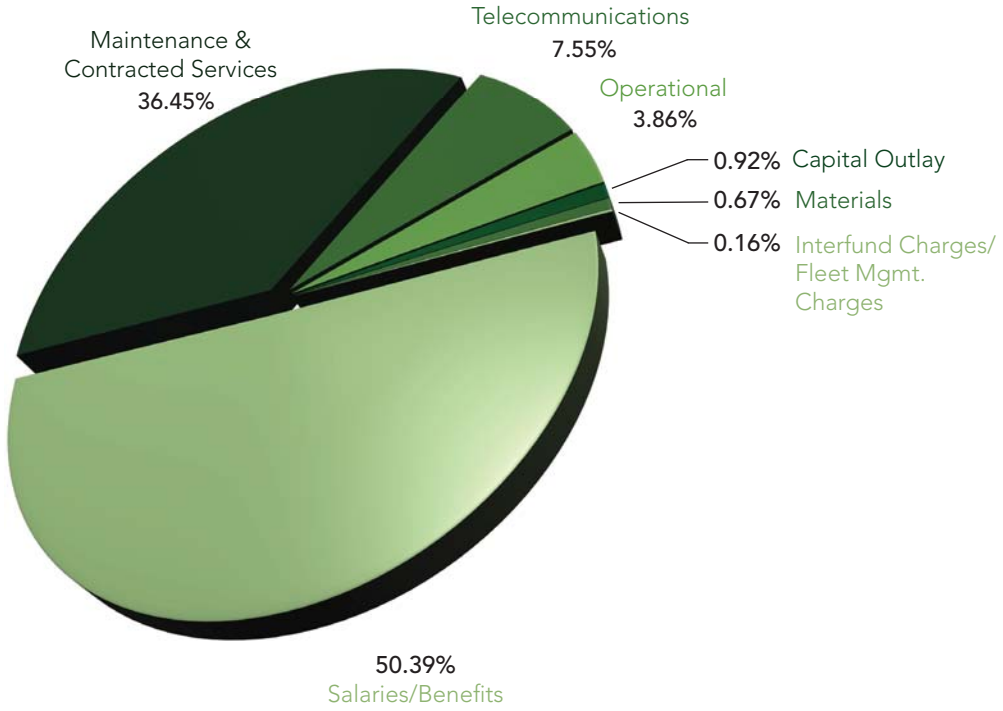


Normal Work Orders Completed Within 24 Hours
City of Asheville, IT Services



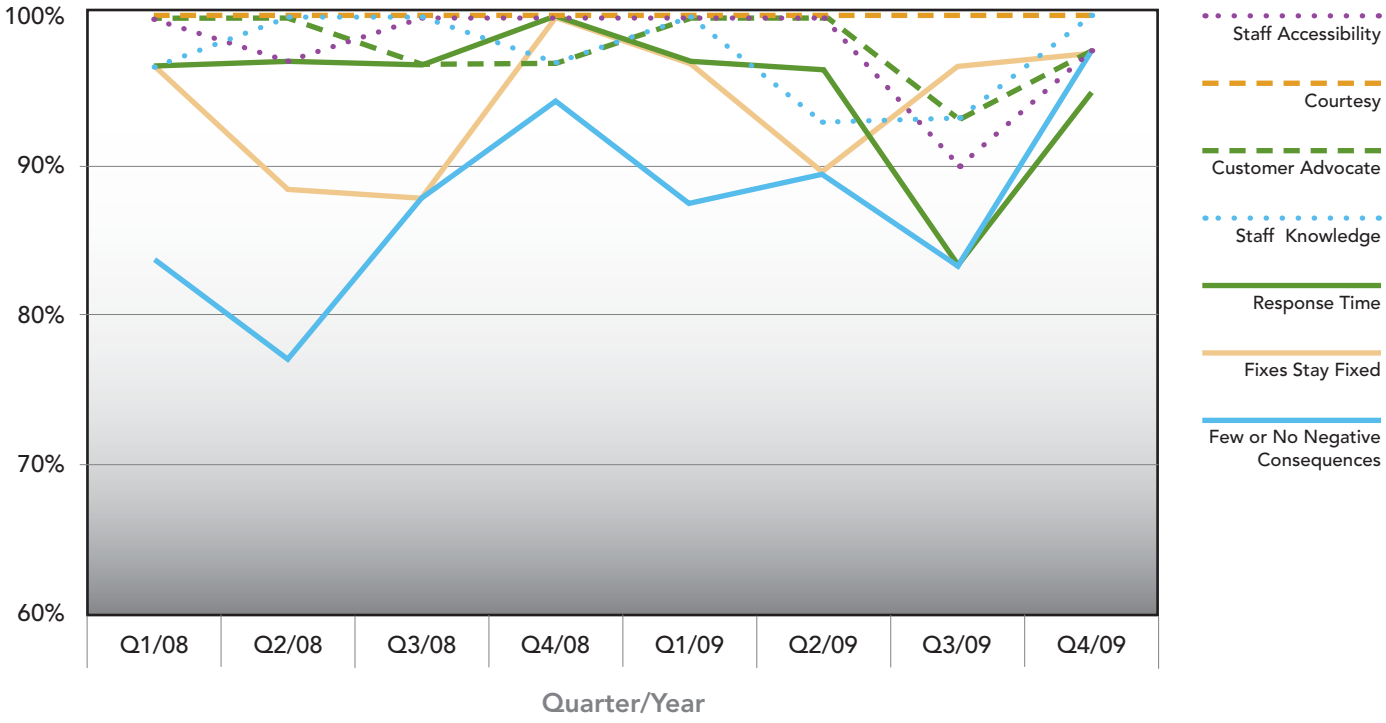
Expenditures by Type

Fiscal Year 2009-2010



Two Year Quarterly Trend—"Good or Excellent"

Customer Service Survey



Organizational Development

FY10 Staff Re-Engineering

In FY10, using existing staff and headcount, the department re-organized to recognize the emphasis that we place on utilizing outsourced resources, including significant maintenance of our public safety radio system. This move allowed existing staff to utilize supervisory skills gained through our professional development program. The city also saved significant budgetary dollars with this re-engineering.

Headcount was moved from Support Services and Technical Services in order to resource an administrative services team. This team manages many cross-departmental telecommunication needs such as our public safety radio infrastructure and the city's telephone system. The team seeks to facilitate increased efficiency with our financial procedures and better consistency in our department's adherence to city and state procurement polices. The team also seeks to improve our department's internal and external customer service by serving as the primary contact for public safety and telecommunication needs.

Promotions, Certifications and Awards

Selected achievement area:

Wanda Burgess was promoted to Support Services Manager in July after serving as interim since January.

Debbie Messer won the City's award on Hoyt Abney nomination for her Community Involvement while serving the City. She also received a Quality of Service award by saving the City approximately $5000 in outsourced services.

The Department received special commendation from Detective Michael Lamb with the Asheville Police Department for our assistance during the creation of the Western Carolina Gang Task Force and relocation to the new Center. Individual thanks were given to the following members of our IT staff:

- Ellane Chandler for her assistance in setting up cellular phones and services
- Gilbert Domingo for his assistance in establishing the VPN and the initial database set-up
- Steve Frey for his assistance with computer, phone and updated services installation
- Debbie Messer for her assistance with setting up programs and desktop computers
- Jason Williams for his assistance with resolving VPN problems

New Faces

Eric LaRue, *Systems Analyst II*

Eric joined our department in December as a Systems Analyst. Eric earned his BS in Business Administration from Florida Atlantic University in Boca Rotan. He spent ten years in real estate management as a manager and controller while developing and consulting on solutions for customers nationwide. His most recent employment was with Symbology Enterprises of Coral Springs, Florida. Eric brings to us his ten years experience in Information Technology including consulting on ERP implementations, custom software and data-collection solutions. Eric enjoys Chinese Martial Arts as well as music outside of work including piano, guitar, trumpet and singing.

Constance Markley, *Administrative Technical Specialist*

Constance joined our department in January as an intern after she earned her B.S. in Mathematics from Western Carolina University. During her internship, Constance completed several projects including data analysis for public safety needs. When opportunity arose, Constance applied for and was hired in a full-time role in the department. Her responsibilities include processing procurements, completing contracts, data analysis and reporting, and acting to document and troubleshoot cross-departmental processes in a role with the Business Technology Improvement Project (BTIP). Outside of work Constance enjoys karaoke, photography and spending time with her two children.

Bech Martin, *Technical Operations Administrator*

Bech joined our department in June as our Technical Operations Administrator, and leads our newly re-engineered administrative group. Bech earned her BS in Mass Communications from Middle Tennessee State University. She brings expertise in Public Safety, radio systems, and project management from her fifteen years of experience with the City of Greensboro. During her employment with Greensboro, Bech negotiated and managed franchise, telecommunications and tower agreements, worked on committees implementing card access and camera security. As our Technical Operations Administrator, Bech's responsibilities include maintaining the city's many technology contracts, public safety communication infrastructure, tower sites, and wireless devices. Outside of work Bech focuses on raising her two daughters and addressing everything it takes for their success in life.

Regina Zachary, *Administrative Assistant*

Gina joined us in December as our Department's Administrative Assistant. As the most recent addition to our new Administrative Division, Gina's responsibilities include greeting customers as they enter our department and as they call our main office line. Gina is also responsible for maintaining our department's calendar, records, payroll and assisting with procurement. Gina brings to us her experience from her previous position as Victim Legal Coordinator for REACH of Haywood County, Canton and Waynesville Police Departments and the Haywood County District Attorney. Outside of work Gina enjoys spending time with her children, hiking, scouting, mountain biking and photography.

Interns & Temporary Employees

Rich Rauschenbach

Rich Rauschenbach provided temporary part-time project management assistance in the last part of 2009 for the City's Business Technology Improvement Project (BTIP). While Rich primarily focuses on processes to provide high level management with their reporting needs, his assistance with BTIP ranges from data analysis to SQL data transformation assignments. Rich earned his BA in Mathematics and German from State University in Albany, New York, his Masters in Mathematics Education from Harvard University and completed post-graduate studies in Computer Science at Montclair State University. He is also a professional firefighter and enjoys triathlons, skiing, managing an Inn & Wine Cellar and restoring old homes.

Community Involvement

Sonya Crump, *Intern*

Sonya came to us as an intern through our partnership with AB Technical Community College. During her internship, Sonya's responsibilities included assisting with imaging and configuring laptops for the Asheville Police Department and working our department's Help Desk by answering phone and email service requests. Sonya recently completed her Associate in Applied Science Degree in Information Systems Technology and is currently working on her A+ certification. In her leisure time, Sonya enjoys riding her motorcycle and spending time with friends and family.

Tae, *CAYLA Student*

Tae is a sophomore at Asheville High School, and was selected for the City of Asheville Youth Leadership Academy last spring. Tae impressed the CAYLA interview committee with his quiet wit and obvious enthusiasm for all things technology-related, not to mention his stellar teacher recommendations and notable GPA. Tae was placed with our department, and spent the summer shadowing our Support Services and Technical Services staff technicians and gradually mastering the IT HelpDesk. Tae is a quick learner and a hard worker, and anyone who knows him will agree that he is not at all shy about asking questions! Tae is a joy to work with and he continues to surprise us with hidden talents, such as his ability to solve a Rubik's Cube in under five minutes!

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