

City of Seattle Department of Information Technology 2007 Annual Report

MISSION

We make technology work for the City.

The Department of Information Technology (DoIT) harnesses the power of computers and telecommunications to help City government serve Seattle's residents and businesses. The Chief Technology Officer sets technology standards and strategies to ensure City government uses technology tools efficiently, effectively and wisely.

2007 HIGHLIGHTS

Online web transactions became more secure for residents and businesses when Seattle became the first city of its size to achieve PCI compliancy. [Payment Card International](#) (PCI) standards are designed to safeguard cardholder information.

Seattle is designated as a "Level-2 Merchant," meaning that we process between 3 million and 6 million transactions per year.



Communications technology in Seattle's new Emergency Operations Center were planned, coordinated, and installed by DoIT, including 660,000 feet of cable, telephone infrastructure, desktop computers and 189 square feet of projector screens. The Seattle EOC is a video switching center for regional EOCs, and videoconferencing connects the Governor, King, Snohomish and Pierce County executives and their five regional EOCs. A

direct audio/video feed to the Seattle Channel 21 relays feeds to local cable TV companies.

The **SEATTLE CHANNEL** was named the best municipal television station in the country when it received the prestigious Excellence in Government Programming Award from the National Association of Telecommunications Officers and Advisors (NATOA).



STRATEGIC INITIATIVES

Email security

City email boxes now are better protected from spam, phishing attacks, and attachments that contain viruses, spyware and worms. In 2007 we implemented Postini, an external service through which approximately 750,000 emails that come into and leave the City of Seattle every day are routed. Of these 3/4 million emails, only about 10% are valid and allowed through Postini. The remaining emails are quarantined or discarded.

Wi-Fi in the community

Since 2005 we have provided [free Wi-Fi](#) in the University and Columbia City Business Districts, four downtown parks and City Hall lobby. Surveys show that over half (55%) of users said they saved driving by using Seattle Wi-Fi. In 2007 we had 19,768 unique users, about 25 percent more than the number of residents, businesses and visitors that we served in 2006.



This partnership with the University of Washington and neighborhood chambers of commerce is enabling students and faculty to work off campus, bringing shoppers to local businesses, and connecting visitors to [seattle.gov](#) and local resources. [Statistics for Wi-Fi](#) usage are updated monthly.

Broadband Initiative

"A state of the art technology infrastructure is vital to taking Seattle into the future. We are looking for a partner who has the vision and ability to join us in this exciting endeavor." - Mayor Greg Nickels

A [Citizen's Task Force on Telecommunications Innovation](#) recommended in 2005 that the City explore the feasibility of using City assets in a telecommunications network available to the public, and in 2006 DoIT issued a [Request for Interest](#). We received 28 letters of interest and interviewed ten firms. The interviews indicated considerable interest in a [broadband network](#) with City participation, and highlighted the need for additional information.

In 2007 a [feasibility study](#) was done that estimated costs for a fiber network throughout Seattle at \$250 million, with an additional \$250 million to take the network to the premises. The study showed that a network would be profitable if at least 24% of residents sign up for service and that customers could realize some \$2 billion in savings over twenty years time.

A [market survey](#) done in 2007 indicated that 70% of residents want more competition, 60% support some public financing for the network (that number increases to 73% if the network saves them money), and that 60%-70% of households will likely or very likely subscribe to services provided on a City fiber network.

SMART TECHNOLOGY

IT security

Eight City IT employees, including four from DoIT, were credentialed as Certified Information Systems Security Professionals (CISSP). This certification is the top credential possible in the field and encompasses a range of areas, from personnel and physical security to access-control and cryptography. DoIT's newly CISSP certified staffers are James Dyer, Sam Foucault, Mike Miller, and Yvonne Tracy.

IT project management

Each year the City's IT [Project Management Center of Excellence](#) (PMCoE) and the Chief Technology Officer choose a well run technology project for special recognition. In 2007 PMCoE selected the Seattle Parks and Recreation's Pyramid project team who created an integrated registration, reservation and point of sale system for use at 56 Parks facilities. Now anyone can search for classes and activities offered throughout the City, then register and pay for them online. Mayor Nickels congratulates the Parks project team.

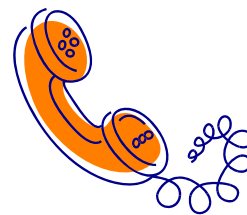


Work processes

Implementation of SharePoint for internal collaboration, new printers for utility bill printing, and a new tape library with added storage capabilities are improving work processes and efficiency.

Customer service

Seven Interactive Voice Response (IVR) applications and a web component were developed and supported for the Department of Planning & Development, Municipal Court, Seattle Public Utilities, Seattle City Light, and Department of Executive Administration. Voice applications include English and Spanish languages and connect to a variety of enterprise wide host databases, including our own credit card gateway. In 2007, the production IVR system processed over 1.6 million calls, a 40% increase over 2006.



Mobile communications

In 2007 the DoIT Communications Shop installed mobile data computers in more than 260 public safety and utility vehicles and installed radios in more than 30 fire and police vehicles and fire boats.

Public safety radio system highlights

- Operated radio system at 100% service availability
- Acted as regional leader in radio interoperability and rebanding efforts
- Was selected over vendor by the Eastside Public Safety Communications Agency (EPSCA), an emergency regional radio access service provider operation, to install radio equipment
- Had a major role in writing the Tactical Interoperability Communications Plan, a federally mandated plan that is required for Urban Area Security Initiative grants, for the King, Snohomish, Pierce Urban Area



IT operations – all day, every day

- Maintained supported platforms and applications at 99.997% availability
- Designed, built, tested, and implemented 10+ applications for work management, change management, finance, billing and more
- Implemented a GPS tracking system for Animal Control officers
- Migrated all department applications from Meridian MAX to Symposium
- Added “high profile” Symposium scripts for Seattle Public Utilities, including Graffiti and Illegal Dumping lines
- Designed and created 25 new Crystal customer and management reports and support 252 such reports full time
- Maintained enterprise software licensing records and assisted with annual software license renewal
- Purchased, received, stored, and dispersed nearly \$2 million worth of equipment and software
- Maintained the data network at 99.989% reliability
- Designed and installed an alternate data center
- Maintained telephone network at 99.967 % reliability
- Move/add/change orders touched 17,054 employee work stations
- Migrated the Seattle Police Department 911 Communications Center to a new PBX switch
- Eliminated the use of long distance authorization codes in the City for an overall cost savings of \$20K annually
- Implemented a new Animal Shelter IVR application which handled 13,386 calls in its first 40 days of operation
- Maintained voice mail system at 99.6% reliability
- Converted 49 community centers and the Department of Neighborhoods Neighborhood Service Centers to Voice over Internet Protocol (VOIP) technology

SEATTLE.GOV



The [official website](#) of the City of Seattle.

Seattle.gov's mission is to provide a 24 hour City Hall for the residents and businesses of Seattle.

Language Bank

The [Language Bank](#) added Filipino and Somali in 2007, bringing the number of languages indexed online at Seattle.gov to 28.

My Neighborhood Map

[MNM](#) now shows 50 services, Real Time Seattle Fire Department 911 incidents, and monthly Seattle Police Department crime data. Find your nearest health clinic or public school, heritage tree or P-Patch. MNM has it all.



Web upgrades

- ✓ The Web Team implemented new mailing list software and upgraded 347 mailing lists and conferences into 108 lists with more than 50,000 registered users. They also cleaned out about 20,000 bad email addresses in the system.
- ✓ The main Seattle.gov web content servers were upgraded to a Virtual Server environment with hardware load balancing for improved availability, scalability and overall replacement costs.
- ✓ Ten new .Net web applications were added to Seattle.gov.
- ✓ All City web servers have now been upgraded to the latest standards for hardware and operating systems.
- ✓ The Department of Planning and Development launched a new online [permit fee payment](#), [trade license renewal](#) and [land use Q&A](#). They also upgraded GIS mapping technology using Microsoft's Virtual Earth to view all permitting activity in Seattle.
- ✓ Seattle Public Utilities launched a new [Bins and Barrels](#) application to accept online purchases of recycling bins and rain barrels.

Website Services portals



Working with the Customer Service Bureau, we reorganized and enhanced the Seattle.gov [City Services](#) portal page and added a second services-oriented page that offers portal links to all [City Frequently Asked Questions](#) pages.



Teen Portal

2007 saw the launch of the [Teen Portal](#), an innovative portal just for youth, offering hundreds of links to web sites and information of interest to teens in diverse categories such as Civic, School, Arts, Video, Get Involved, Health, Crisis and more. Use of the web site grew quickly – with over 17,000 page views recorded by year’s end.

Online services

A new web service, Single Sign-On, makes it easier for customers to use online services. It authenticates web users only once and enables them to use multiple City online services, such as permit status and bill payments.

Web stats

Monthly [web use statistics](#) are posted online.

Web team awards



- ✚ The Web Application Layered Defense (WALD) secure application infrastructure design project won Significant Achievement award at the annual Solutions Award competition hosted by the Public Technology Institute (PTI).
- ✚ The Language Portal and Seattle OnHold received Honorable Mention from PTI.



SEATTLE CHANNEL



[SEATTLE CHANNEL](#), the best municipal television station in the country according to NATOA, is carried on Comcast and Broadstripe (formerly Millennium Digital Media) channel 21.

2007 programming highlights

The SEATTLE CHANNEL completed nearly 1,000 productions in 2007:

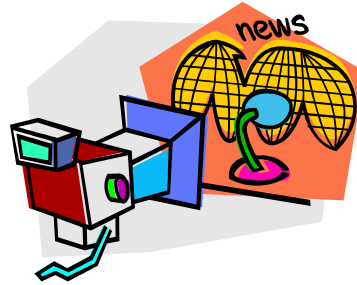
- 371 City Council related productions including, presented live on Cable 21, streaming at [seattlechannel.org](#), and available via the web as video-on-demand.
- Weekly episodes of popular TV series, including 30 episodes each of [CityStream](#), [City Inside/Out](#) and [Seattle Voices](#).
- Two specials about the Seattle Art Museum to celebrate the opening of the Olympic Sculpture Park and the expanded downtown museum.
- Another season of [Community Stories](#), sharing stories of unique individuals and organizations making a difference in Seattle's neighborhoods.
- Day-long live broadcast of the Pike Place Market Centennial, culminating in a live concert from Steinbrueck Park.
- Live broadcast from Bumbershoot, presenting the Mayor's Arts Awards and a preview of the city's annual arts festival.
- Nearly 90 Mayor-related productions including more than 55 press conferences.
- Comprehensive coverage of the U.S. Conference of Mayors Climate Protection Summit in Seattle, including speeches by former President Bill Clinton, former Vice President Al Gore, New York City Mayor Michael Bloomberg and multiple panel discussions featuring mayors from around the United States.
- Coverage of more than 70 community discussions and lectures with partners such as Allied Arts, CityClub, Elliott Bay Books, Downtown Republican Club, Central District Forum, Town Hall Seattle and University Bookstore.



[Art Zone](#) was launched in 2007, bringing local, diverse weekly arts programming, including The Local Music Show with John Richards, [BIG NIGHT OUT](#), and Gallery Hop, to the Seattle television airwaves and the Internet.

Technology upgrades

- New equipment for major digital infrastructure upgrades
- Upgraded graphics equipment in the Council control room
- Upgraded studio camera equipment
- New encoding software for batch encoding of video for more efficient posting on the web
- A new non-linear editing suite
- Enhanced décor and technology for all studio shows
- Multi-format encoding for SEATTLE CHANNEL programs

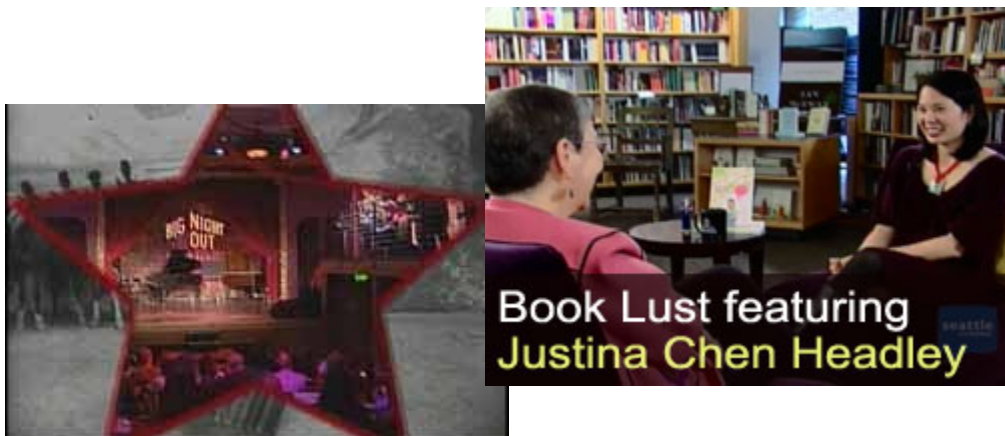


SEATTLECHANNEL.ORG website

The [SEATTLE CHANNEL website](http://seattlechannel.org) continued to evolve during 2007, offering new features and services for users and attracting a rapidly expanding audience. In 2007 the number of page views on SEATTLECHANNEL.org quadrupled to 3,841,717. More than 1,000 new videos were added to the website in 2007, and 627,678 videos were streamed or downloaded.

Program enhancements

- A new *City Inside/Out* page has blogs, surveys and other user amenities.
- A new *CityStream* page has enhanced content (web extras) and show segments posted individually, giving web users maximum flexibility and keeping the SEATTLE CHANNEL on the cutting edge of video content delivery.
- Video and audio podcasts (distributed via the web and iTunes) were added for *CityStream*, *Community Stories*, *The Local Music Show*, *Verve*, *Ask the Mayor*, *Book Lust*, City Council meetings, *A Guide to Visitors*, *Now Hear This*, *Seattle Voices*, and the Pike Place Market Concert.





SEATTLE CHANNEL awards

- *Excellence in Government Programming Award* from the National Association of Telecommunications Officers and Advisors (NATOA)
- *Emmy* by the Northwest Chapter of the National Academy of Television Arts & Sciences for *City A Go Go*
- *Technology Solutions Award for Web Services* from the Public Technology Institute (PTI)
- A PTI award, *The Art of Building Community*, for Art Zone
- Two Ava Awards from the Association of Marketing and Communication Professionals for Art Zone productions: Gold for *Seattle's Public Art: Dan Corson* and Platinum for *Paul Marioni, Artist*
- General Manager Gary Gibson was named one of the "25 Most Influential People" by *Seattle Magazine*
- Additional awards from NATOA
 - First Place: Visual Arts - "[The Local Music Show Open](#)"
 - First Place: Public Education - "[Supportive Housing - Supporting Success](#)"
 - First Place: Election Coverage - "[On the Ballot](#)"
 - Second Place: Visual Arts - "[Verve Open](#)"
 - Second Place: Municipal Channel Promotion - "Olympic Sculpture Park Preview Promo"
 - Third Place: News Series - "[City Inside Out](#)"
 - Third Place: Website - www.seattlechannel.org
 - Third Place: Interview/Talk Show - "[City Inside Out](#)"
 - Third Place Documentary - Event Coverage for "[Seattle International Film Festival Super Fly Filmmakers](#)"
 - Honorable Mention: Performing Arts - "[KEXP Live at the Triple Door Presents Joseph Arthur](#)"
 - Honorable Mention: Community Event Coverage - "[Woody Woodhouse Tribute](#)"
 - Honorable Mention: Visual Arts - "[Big Night Out Open](#)"

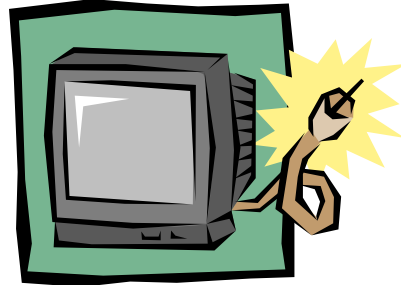


CABLE COMMUNICATIONS

The [Office of Cable Communications](#) has overall responsibility for issues related to cable television and cable Internet service for Seattle residents. The Office oversees the City's non-exclusive cable television franchises with Comcast and Broadstripe (formerly known as Millennium Digital Media) through enforcement of the [franchise agreements](#), with an emphasis on citizen concerns. The Cable Office maintains the country's strictest [Cable Customer Bill of Rights](#). Seattle has about 187,000 cable subscribers.

Customer service

The Office of Cable Communications resolved 771 cable complaints and processed 688 cable discounts for senior, low-income and disabled individuals during 2007.



New Broadstripe franchise

In 2007 the Office of Cable Communications negotiated a new 10 year franchise with Broadstripe, formerly known as Millennium Digital Media. The new franchise provides many benefits to Seattle residents and the City:

- A new, lower priced basic service tier for \$19.99 (down from \$47)
- A fiber optic connection to [Town Hall](#) that enables live programming of civic and cultural events from Town Hall over the Seattle Channel
- Fifty complimentary, business class cable Internet service connections for non-profit community organizations
- More HD channels and Video on Demand within 12 months
- A \$20k grant to Seattle Community Access Network (SCAN) for development of programming for and about communities that are traditionally under represented in media

Citizens Telecommunications & Technology Advisory Board

[CTTAB](#) studies and makes recommendations to the Mayor and the City Council on issues of community-wide interest relating to telecommunications and technology, including cable television access, technology access, and regulatory issues within the City's authority regarding wire and wireless communication systems. CTTAB also promotes accessibility and citizen participation in telecommunications and technology decision-making.

- In 2007 CTTAB began investigating how technology could improve access to board and commission meetings. The board tested podcasting and will make a presentation to City Council on its evaluation in 2008.
- The Technology Matching Fund committee participated in two information forums and reviewed and rated 29 applications. The team recommended 15 local non-profits for funding. In 2007 these projects served more than

720 individuals at 37 sites throughout Seattle and contributed more than \$217,000 in matching funds, doubling the City's original investment. The digital inclusion projects helped more than 100 seniors, 210 youth, 400 adults, 130 immigrants and refugees, 56 disabled residents and 500 low income individuals gain the technology skills necessary to participate in our 21st century economy.

- The Cable Franchise Renewal committee held several public forums to take comment on the Millennium Digital Media franchise. They also reviewed and commented on the Millennium agreement.
- CTTAB established a Youth Civic Engagement program in coordination with the University of Washington and YMCA. They hosted citywide events for youth that resulted in the creation of Puget Soundoff, a web portal geared to Seattle's youth.
- The board provided feedback and suggestions for My Neighborhood Map on Seattle.gov.
- CTTAB provided comments on state and federal legislative and regulatory issues. The board wrote a letter to the state legislature opposing a proposed statewide franchising bill. In December they testified and submitted formal written comments at a FCC hearing on media consolidation.

Fifteen CTTAB members serve over-lapping two-year terms. One member represents *Get Engaged: City Boards and Commissions* and serves a one-year term.

Todd Achilles
Shivani Tejuja
William F. Baron
Leah Altaras
Harry Hart, III
Michael Davidson
Oren Sreebny
Victoria Yuki
Margaret (Peg) Achterman

Nina Sanders
Maryann Budlong
Charles Brennick
Jerry Lin
Richard Huff
Tom Kee
Fran Clifton
Matt Towers
Jessica Bukowski – *Get Engaged*

COMMUNITY TECHNOLOGY

The City of Seattle is committed to promoting a technology healthy community. This includes ensuring that residents have the information technology training and access needed to ensure civic and cultural participation, employment and lifelong learning.

Community Technology grants

The [Community Technology Matching Fund](#) provided \$160,000 in grants to 15 community projects benefiting youth, seniors, disabled residents, immigrants and refugees and victims of domestic violence. Projects offer hands-on opportunities with the Internet and a wide range of digital technologies, including audio, digital image manipulation, video, 3D modeling, game programming and scripting.



Thirteen [2006 grant recipients](#) completed their projects this year, serving more than 620 individuals at 37 sites throughout Seattle. The projects contributed more than \$217,000 in matching funds. Here's what recipients had to say:

"We have noted an increase in the usage of the center. Senior residents are working on books, connecting with family and friends and exploring entrepreneurial opportunities."

"The youth started off knowing how to get on the Internet and by the end, they were actually able to program their own websites. This gave the students an opportunity not to only strengthen their math/science and technology skills, but show up as leaders of

"We helped dozens of people to build businesses that contributed to their incomes and build their computer knowledge that transferred to their day jobs and life skills. We will use the knowledge and curriculum we have created for a long time to come, and many of our client entrepreneurs will benefit from it."

Youth civic engagement

Puget Sound Off, a youth civic engagement project funded from the Comcast cable franchise, was launched in 2007. During the summer 22 youth received training and started work on an interactive teen web portal to be launched in 2008. Partners with Seattle in Puget Sound Off are Metrocenter YMCA, University of Washington Center for Communications and Civic Engagement and One Economy.



Community tech updates

- The first community center e-cycle event was held with non-profits RecTech and Interconnections.
- We helped lead the first Washington State Community Technology Day in Olympia as a start to increasing State support for digital inclusion.
- Cable Internet service is available at 15 new community locations.
- A new application process improves the cable Internet program, easing the way for community providers to get modems we receive through franchise agreements with Broadstripe and Comcast.
- The public computers we service provided 13,336 hours of free community use in 2007.
- An Internet filtering project was initiated for public computers in Parks and Recreation's Community Centers and Department of Neighborhoods' Neighborhood Service Centers.
- [Brainstorm](#), our online ezine, is distributed to more than 1,300 email addresses each month.



Voting for community priorities



Residents and businesses of South Park used a game show tool to set their priorities for the coming year at a community open house in November. Each person had a handheld radio voting box (like a TV remote control) and voted on which projects were priorities for the coming year. The questions were provided in English, Spanish and Vietnamese. The *Sharp Decisions* electronic software displayed the group's preferences right away.



CITY ENTERPRISES

Climate Action Now

This City-led partnership was formed in 2007 to tackle the challenge of climate change. DoIT's contribution included



- Reducing energy (changed from cathode ray tubes in the switch room to flat screens, installed voice over Internet Protocol for remote City sites, increased use of virtualization technology in the Data Center, changed the City computer standard to machines that are Energy Star compliant, piloted technology that allows configuration of desktops to save energy)
- Reducing pollution (replaced propane generator with one that is capable of running on biodiesel)
- Reducing waste (required vendors to deliver CPU's without boxes, scanned warehouse documents instead of photocopying)
- Supporting public outreach (managed development and launch of SeattleCAN.org website)

Contracting

DoIT's WMBE utilization of purchase and consultant contracts was 13.56 percent, spread among 43 vendors.



Paper Cuts

DoIT reduced its paper use by 9 percent over 2006 and redesigned the [Paper Cuts](#) website.

Emergency preparedness

DoIT provided a duffel bag for each employee's workspace to use as a mobile emergency kit, updated Emergency Procedures documents, and provided information on West Nile Virus and pandemic flu planning.

Charitable involvement

DoIT employees participated in the City's Combined Charities Campaign and Emergency Assistance for Seattle Employees (EASE) campaign, fielded a team for the Heart Association Walk, and joined in the Shamrock Box Lunch to benefit Childhaven.



Race & Social Justice Initiative

"Fairness and inclusion are the cornerstones of my priorities for the City of Seattle. All of us who work in City government have a role to play in achieving race and social justice for everyone." - Mayor Greg Nickels



2007 [RSJI](#) highlights:

- The Change Team created new Standing Rules & Recruitment Process and hosted two showings of *Race: the Power of an Illusion* for 27 new and current employees.
- DoIT's executives and managers completed new RSJI management training developed by the Seattle Office for Civil Rights.
- Diana DeLeon was accepted for the second citywide RSJI Core Team. The Core Team is a cross-departmental group of about 30 people who work with Change Teams, department managers and line staff on RSJI concerns.



Four students from the Technology Access Foundation's education program interned with DoIT. Anthony and Chisom worked at the Service Desk, Tiffany worked in Enterprise Computing, and Lenda did programming for Technical Support Services.

DoIT BY THE NUMBERS

2,430 desktop computers and 308 printers supported by Desk Top Computing

10,477 service tickets closed by Technical Support Services

200+ projects monitored in citywide IT project portfolio

43,265 calls answered by the Service Desk

100 million emails received by City system on annual average – 81 million emails caught by spam control

14,638 batch jobs run and 9.2 million bill pages printed in Data Center

43,265 calls answered by the Service Desk

260 police vehicles received new mobile data computers

32 fire and police vehicles and boats received new radio equipment

187,000 cable television subscribers

1,000 programs produced by the Seattle Channel

627,678 video streams and downloads on Seattlechannel.org website

2 Ava Awards for *Art Zone* productions from the Association of Marketing and Communication Professionals

17,708,988 user sessions and 141,855,817 page views on City of Seattle's website

10 new web applications on Seattle.gov in partnership with City departments

28 languages represented in Language Bank on Seattle.gov website

19,768 users for free Seattle Wi-Fi service in downtown parks, Columbia City, and the University District

\$160,000 in Community Technology Fund grants awarded to 15 community projects aimed at closing the digital divide, leveraged with \$326,000 in matching community resources

14,638 batch jobs run and 9.2 million bill pages printed in the Data Center

REGIONAL BOARDS & ORGANIZATIONAL AFFILIATIONS

Association of City and County Information Systems (ACCIS)

Debra Schlenker, At Large Board Member

ACCIS is an organization in the State of Washington composed of the chief information system officers from the cities and counties throughout the state.

Association of Contingency Planners (ACP), Washington Chapter

Vicki Wills, Vice President

ACP is a non-profit trade association dedicated to the advancement of business continuity professionals, promoting contingency planning and disaster mitigation throughout the public and private sectors.

King County Regional Communications Board (KC-RCB)

Bill Schrier, Chair, and John Wiswell, System-wide Manager

The KC-RCB is an official Board/Commission of King County Government, established by an interlocal agreement. It oversees the management of the King County Public Safety (800 MHz) radio network.

Metropolitan Information Exchange (MIX)

Bill Schrier, Secretary

MIX is an organization for chief information officers and other key technology executives who are responsible for overall information technology from cities and counties with populations over 100,000.

National Association of Telecommunications Officers and Advisors (NATOA)

Tony Perez, Board of Directors

NATOA is an association of city and county officials who regulate cable and telecommunications and oversee municipal television stations.

Puget Sound Regional Interoperability Executive Committee (PSR-IEC)

Bill Schrier, Chair and Coordinator

The PSR-IEC is a three-county organization chartered by the UASI Core Group to plan improvements to public safety communications networks in the UASI area.

Washington Association of Telecommunications Officers and Advisors (WATOA)

Jill Novik, President, Executive Board

WATOA is a professional organization of individuals and organizations serving citizens in the development, regulation, and administration of cable television and other telecommunication systems.

Seattle Department of Information Technology

<http://www.seattle.gov/doi/>

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