Annual Report

2017

Seattle
Information Technology

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Letter from the Chief Technology Officer

Dear Seattle neighbors,

This past year has been an exciting one of change and innovation. We've just completed our second year of Seattle IT's three-year consolidation and our first year of the Technology Strategic Agenda.

In our second year of the consolidation, we've moved into the transformation phase of this change. In 2017, we saw combined teams from the Applications and Strategy and Planning Divisions take shape. New teams were created to help streamline the way Seattle IT delivers technology to our City business partners and the residents of Seattle. Through programs such as the Desktop Replacement Program (page 4) and our Identity Management Program (page 7), we've shown that consolidation and integration can make technology more efficient and cutting edge for the City and the community we serve.

In our Technology Strategic Agenda, we've worked to build a smarter, data-driven city using innovation and information to help improve the quality of life and economic productivity. As you'll read, we've continue to take steps to increase digital literacy and access to government services for all Seattle residents through programs such as our Technology Matching Funds (TMF). This year, 15 organizations received funds to help continue their work of bridging the digital divide in our City. Organizations such as the East African Women Basic Computer Literacy Project will continue to help Somali parents learn how to use computers, so they may help their children with homework (read more about this program and other TMF recipients on page 13).

And while we strive to benefit from the transformative aspect of new technologies, we cannot lose sight of the risks they can present. We must understand impacts new technologies can have on personal privacy and take steps to both mitigate potential harms and earn the public's trust in the use of new technologies.

 I'd like to thank Mayor Tim Burgess, Council President Harrell, and CTAB Chair Jose Vasquez for the opportunity to present this report. I also want to thank the more than 700 Seattle IT staff, not only for their dedication to our industry, to our community as we all work to deliver powerful technology solutions for the City and public we serve.

Sincerely,
Michael Mattmiller, Chief Technology Officer

Letter from the Community Technology Advisory Board

Congratulations to Seattle Information Technology and it's many City, corporate and community partners for a tremendous year of providing the technology services that make the City and the City's interaction with the community work.

The volunteers on the Community Technology Advisory Board (CTAB) and the community members who participated in our meetings and committees are honored to have played a part in advising the City on a range of technology issues. Through City staff presentations and our joint work on projects, such as the Technology Matching Fund, we've seen the work and progress that Seattle IT has made, and the ongoing work to ensure that the city's information and communications technologies are effective, efficient, responsive to residents, accessible to our diverse communities, and always available. We know that this has been a year of evolution with the IT consolidation that continues into 2018. We appreciate the dedication of staff across the city that keep our IT infrastructure and services humming. This work is truly critical to keeping Seattle innovative and healthy. As this annual report shows, the work on consolidation and the need to respond to challenging times, community needs, and evolving technology makes this work ever more important. The City's steps forward on digital equity, smart cities, security and privacy serve as a national example of a city that understands the impact of technology, and one that cares and that responds.

Working with Seattle IT, the Community Technology Advisory Board is a conduit to the Seattle community and we make recommendations to Seattle IT, the Mayor and City Council on a broad range of issues relating to information and communications technology. This year, we were able to work with Seattle IT to:

- Successfully advocate for public benefits in the Wave franchise renewal, including a low-income Internet discount and expansion of the cable broadband for non-profits program;

- Promote and recommend 15 new Technology Matching Fund grants;

- Help secure additional funds for the Technology Matching Fund;

- Contribute to the digital equity evaluation plan;

- Host Digital Literacy networking meet-ups;

- Promote an open internet and submit comments and case studies in the FCC's "Restoring Internet Freedom" proceeding (incl. Net Neutrality & Lifeline);

- Advise on the Surveillance Ordinance and serve on the working group;

- Advise Seattle IT on an Open Data race and social justice strategy; and

- Provide educational presentations to the community on a range of issues, including tech and homelessness, privacy, smart cities, cable franchising, and driverless cars.

We look forward to continuing to work with Seattle IT in 2018 and seeing how much will be accomplished in 2018!

On behalf of the Community Technology Advisory Board (CTAB),
Jose Vasquez, Chair; Heather Lewis, Vice Chair

WHO IS SEATTLE IT?

Seattle Information Technology (Seattle IT) is an integrated department of over 700 employees who deliver powerful solutions to the Seattle community. In 2016, Seattle IT began consolidating IT departments across the City. In 2017, Seattle IT focused on integrating these separate departments into one streamlined place where internal and external customers can more efficiently access Seattle IT services.

AT OUR CORE

VISION: One city, connected by technology.

MISSION: Powerful technology solutions for the City and public we serve.

OBJECTIVES

- Connecting people with their government
- Ensuring an effective and productive workforce
- Building a digitally equitable community

VALUES

Customer Focus: Connect closely with internal partners and the community, providing exceptional customer service.

Accountability: Serve the departments and people of the City with integrity, while honoring our commitments.

Transparency: Conduct business openly by sharing information, valuing contributions, and understanding how our work impacts others.

Innovation: Elevate the technology experience of our employees and customers, supporting the vision of the City by implementing smart, targeted solutions.

Collaboration: Invest in each other with mutual respect, operating as one team to promote an efficient workplace.

Leadership: Lead by example, creating a safe and trusting environment where we are empowered to do our best work.

Diversity: Enable people with differing perspectives, backgrounds, identities, and abilities to reach their full potential.

WHAT WE DO

CONNECTING PEOPLE WITH THEIR GOVERNMENT

Seattle IT operates the external face of the City: seattle.gov, Seattle Channel, and a suite of mobile applications. With a rapidly growing population and fast-paced business climate, more people than ever need timely information and services from their city government. Seattle IT is committed to furthering our online presence and tools to meet the needs of an innovative and creative city.

ENSURING AN EFFECTIVE AND PRODUCTIVE WORKFORCE

The talented, professional staff of Seattle IT are passionate about enabling our colleagues to serve the people and businesses of Seattle. In a region with a thriving technology industry, these individuals choose to devote their time to serving others. We provide powerful technology solutions to employees helping them provide excellent service and meet the public where they are.

BUILDING A DIGITALLY EQUITABLE COMMUNITY

Internet access is the infrastructure challenge of the early 21st century. The internet, and the access to the information and services it provides, is responsible for economic growth, job creation, education, and a better way of life. But the internet only creates value for people if everyone has choices for equal and affordable access, and the digital literacy to use that access effectively.

CASE STUDY:
IDENTITY MANAGEMENT PROJECT

Business Need

City departments use more than 2,200 software applications, and even more hosted by cloud computing companies. Controlling access to these applications, more than 13,000 desktops, and an increasing number of smartphones has become extremely complex. Today, the City manages access to many of these applications and systems separately – users are given multiple different usernames and passwords and, when a user separates from the City, IT must be notified or remember to remove access from each device and application.

In 2014, the City Auditor recommended Seattle IT review its processes when City employees leave their positions. The Auditor saw potential to increase security protocols and create a more efficient system.

Project Description

This initiative will establish a consistent one-City approach for identifying users on the City's network and applications. Specifically, this initiative will:

- Consolidate and centralize the four Active Directory forests present in the City today. This will facilitate simplified and more consistent account management, including account creation, disablement, and deletion. Policies and procedures would be updated to reflect this change. Applications and servers will continue to be aged out from legacy domains until the last supported application has been replaced or retired.

- Establish a single sign-on (SSO) policy that states all new applications in the City must federate with Active Directory for authentication and identity management, reducing the number of usernames and passwords users must remember. This also increases security by making it more likely access will be removed when an employee separates from the City.

- Implement solutions that create new, modify existing, or delete former users automatically from a ticket originating in the Seattle IT Service Desk. This will implement logic so specified changes in an employee's status (for example that indicate a termination) will result in automatic disabling of access to the City network, email, and applications federated with Active Directory.

RACE AND SOCIAL JUSTICE INITIATIVE

Seattle IT has a Change Team that integrates the City of Seattle's Race and Social Justice Initiative throughout Seattle IT. This team also identifies training opportunities and serves on project teams throughout Seattle IT.

2017 Highlights

- Hosted three events focused on:
  - Contributions people of color have made in technology throughout history
  - Increasing the number of Minority Business Contracts Seattle IT uses
  - Sharing stories about where staff are from to foster relationships and build trust

- Completed two trainings:
  - The Power of an Illusion
  - Racial Equity Toolkit

- Drafted first-ever team charter and work plan

2018 Goals

- Conduct more department-wide trainings for staff and leaders
- Continue to host events for staff that build trust and relationships
- Grow initiative to increase Minority Business Contracts within Seattle IT

Cultures and Values Committee

Seattle IT created the Cultures and Values Committee to develop desired characteristics of the future culture and values of Seattle IT and recommend how to support moving towards that culture. The team provides support by: stewarding an employee appreciation program, consulting on the space plan for the consolidated department, planning events, and supporting the mission, vision, and values of Seattle IT.

FINANCE INFORMATION

As an internal service department, the Seattle Information Technology Department (Seattle IT) revenues are mainly derived from services it provides to other City departments. In April 2016, City IT employees were consolidated into a single IT department, initiating a three-year phased approach to merging service delivery; however, full transitions of the budget did not occur until 2017. The emphasis was on Infrastructure Support Services, followed by Applications, Digital Services, and Project Management services in 2017. The 2017 Adopted Budget reflected ITD's commitment to the priorities outlined in the Department's Strategic Agenda including: a smarter, data-driven City; digital equity; public experience; privacy and security; and service and system maturity. The budget prioritized the successful completion of high-value, critical initiatives that were underway as well as ongoing support for core technology services that are critical to the operation of other City departments.

	2017		2016	
REVENUE				
Non-General Fund	$117,824,473	57.25%	$76,151,097	64.49%
General Fund	77,609,486	37.71%	31,957,629	27.06%
Cable Franchise Subfund	9,713,460	4.72%	9,407,077	7.97%
Other	666,815	0.32%	568,153	0.48%
Total Revenue	205,814,234	100.00%	118,083,956	100.00%
EXPENDITURES				
Personnel Costs	97,668,166	49.35%	72,118,064	65.26%
Other Expenses	90,082,801	45.51%	30,982,635	28.03%
Depreciation Expenses	10,168,154	5.14%	7,415,938	6.71%
Total Expenditures	197,919,121	100.00%	110,516,637	100.00%
Net income	$ 7,895,113		$7,567,319	

CELEBRATING AWARDS RECEIVED IN 2017

Seattle IT Awards Received by the National Association of Telecommunications Officers and Advisors (NATOA)

- Seattle Channel: **Excellence in Government Programming | Best Municipal Television Stations**

- Seattle Channel: **Excellence In Programming , Five 1st Place Wins**

- Community Technology Program — Strategic Plan for Facilitating Equitable Access to Wireless Broadband: **2017 Community Broadband Strategic Plan of the Year**

- Community Technology Program — Technology Matching Fund: **2017 Community Broadband Digital Equity Project of the Year**

Other Awards:

- **Northwest Regional Emmy Award** for the animated short An American Hero: Frank Nishimura

- **2017 Digital Cities Survey Winner.** Seattle came in 6th place -- honored for leveraging technology to enhance inclusion and solve social challenges.

"I congratulate the Seattle Channel staff on its dedication to the station's continued excellence. Everyone on our talented team shares in these awards. Through in-depth programming we strive to provide transparency in city government and deepen understanding of local issues, our changing city and its diverse communities."

— SHANNON GEE, SEATTLE CHANNEL INTERIM GENERAL MANAGER

Seattle Channel

This year the Seattle Channel was named among the best municipal television stations in the nation, receiving the prestigious Excellence in Government Programming award from NATOA. Additionally, the city-operated TV station won nine government programming awards, including five first-place wins for programming.

Community Technology Program

The Community Technology Program works to provide digital equity for all Seattle residents. The Community Technology Program team focuses on three key areas: devices and technical support, internet connectivity, and skills training. NATOA honored their work with two awards: Seattle IT's Strategic Plan for Facilitating Equitable Access to Wireless Broadband and the 2017 Community Broadband Digital Equity Project of the Year. The Strategic Plan for Facilitating Equitable Access to Wireless Broadband explored three options to increase the availability of competitive, affordable, and equal broadband Internet access across the city. The options include reducing regulatory barriers, exploring public and private partnerships, and exploring municipal broadband.

The Technology Matching Fund provides a financial source for digital equity projects up to $50,000. The goal of the program is to increase access to free or low-cost broadband, improve digital literacy skills, and provide affordable, available, and sufficient devices and technical support.

"The City is committed to making Seattle a more digitally equitable community. The recognition by NATOA shows we are making progress on that commitment and is a testament to the great work of our staff and community partners."

- CHIEF TECHNOLOGY OFFICER MICHAEL MATTMILLER
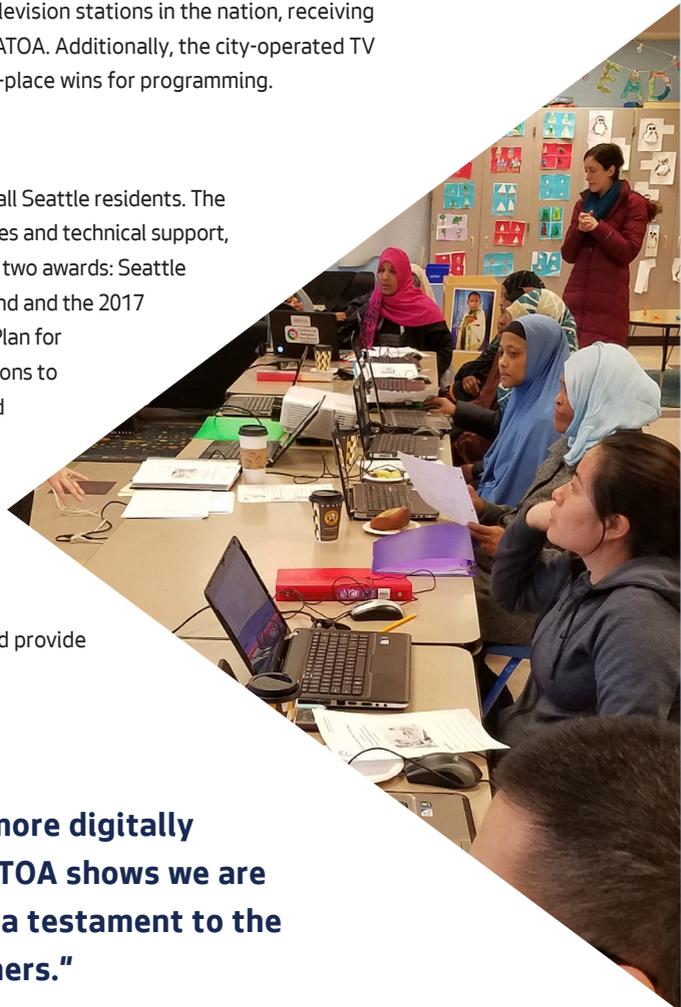
HOW WE HELPED
THE PUBLIC IN 2017

Seattle IT works to ensure the public has access to City services and
programs. Through community investments, strategic initiatives,
and improved policies, Seattle IT has increased transparency,
made it easier to find information on the City's website,
and helped to close the digital divide among
Seattle residents.
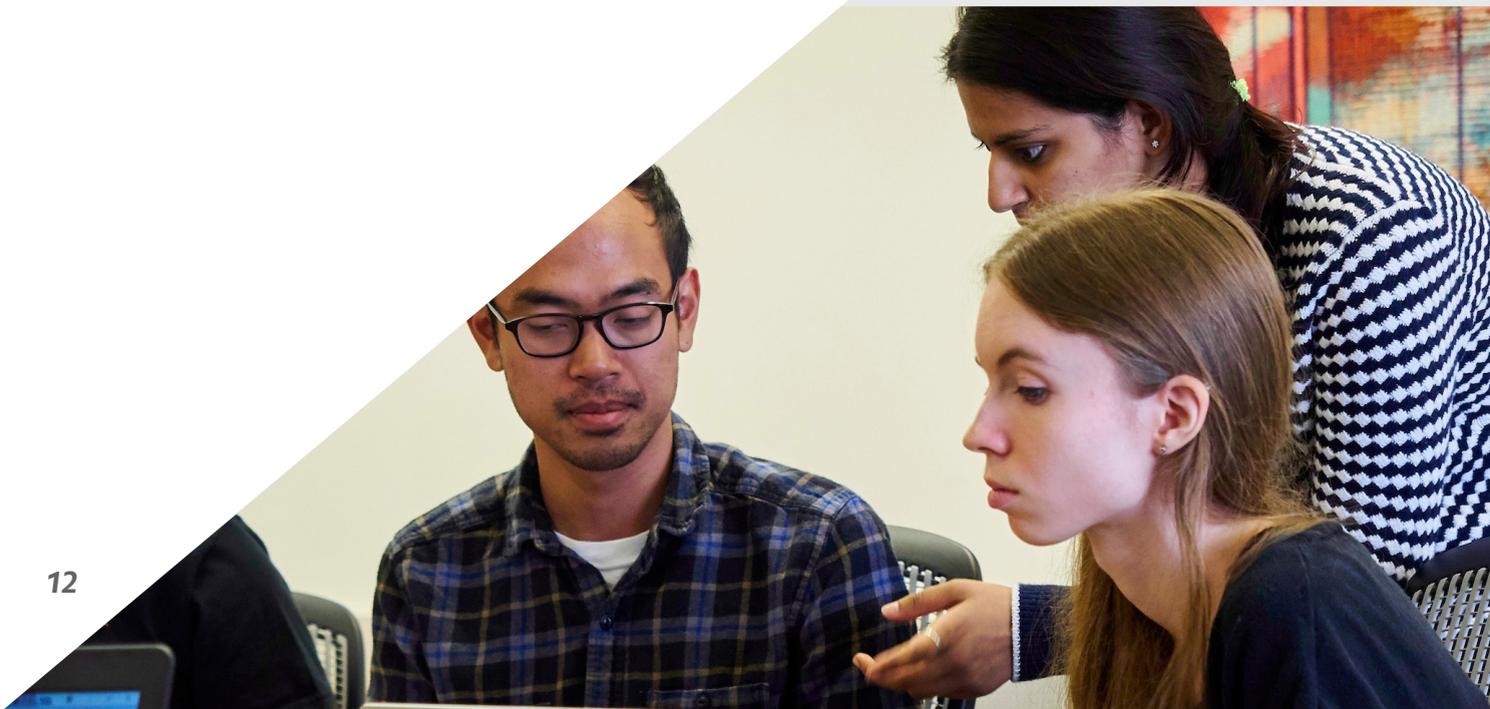
COMMUNITY INVESTMENTS

Technology Matching Fund

Seattle City Council awarded $430,000 to 15 local organizations through Seattle IT's Technology Matching Fund. Technology Matching Fund projects are part of the City's Digital Equity Initiative, which works to increase connectivity, digital skills training, and provides devices and technology support. The Community Technology Advisory Board selected this year's recipients from 36 applicants. The Technology Matching Fund is celebrating 20 years of supporting the community's efforts to increase opportunities for historically underserved residents across the city.

The following is a list of the 2017 Technology Matching Fund award recipients and their projects:

- Coalition for Refugees from Burma: Nexus DigiLab for Parent-School Engagement

- Education for All: Digital Citizenship and Communication Project

- Ethiopian Community in Seattle: ECS Digital Equity Project

- Full Life Care: Technology Access Enhancement Project

- Horn of Africa Services: Enhancing East Africans' Access to Technology

- Kin on Community Health Care: Expanding the Senior-friendly Kin on SmartLab

- LaunchCode: LC101 Seattle: Training for Technology Jobs

- Boys & Girls Club of King County, North Seattle Club: Wallingford Boys & Girls Club Technology Update

- OneAmerica: English and Digital Skills for Citizenship

- Senior Center of West Seattle: Computer lab upgrade

- Somali Family Safety Task Force: East African Women Basic Computer Literacy Project

- South Park Information and Resource Center: Aula Digital en Accion – ADA

- STEMPaths Innovation Network: Project SMARTi in the Dunlap Elementary Community

- The West African Community Council: Empowering West Africans with Technology

- Wing Luke Museum of the Asian Pacific American Experience: Mobile Digital Media Lab for Low-Income Youth

www.seattle.gov/tech/initiatives/digital-equity/technology-matching-fund/2017-awardees

Seattle.gov Redesign

The City of Seattle is currently in the process of updating its external-facing website to provide alignment of terminology, content, with the same look and feel across all City Departments and entities. At the end of 2017, nine department sites were using the new Content Management System structure, five departments are currently under construction, and five remain. The City of Seattle is currently in the process of updating its external-facing website to provide alignment of terminology and content, with the same look and feel across all City Departments and entities.

GOAL

• Create "One City One Look" through alignment in terminology, content, and visuals across departments.

PROCESS

• Redesign phases will occur in waves of four to six months

• Validate each department's website redesign along the way to ensure smooth transition

PRIORITIES

• Mobile-friendly design approach

• Reflect Seattle's vibrant and innovative nature

• Create ease of use in finding government and City information

• Establish seattle.gov as a secure and trusted website

• Bring Department Services and Programs to the forefront of the seattle.gov portal
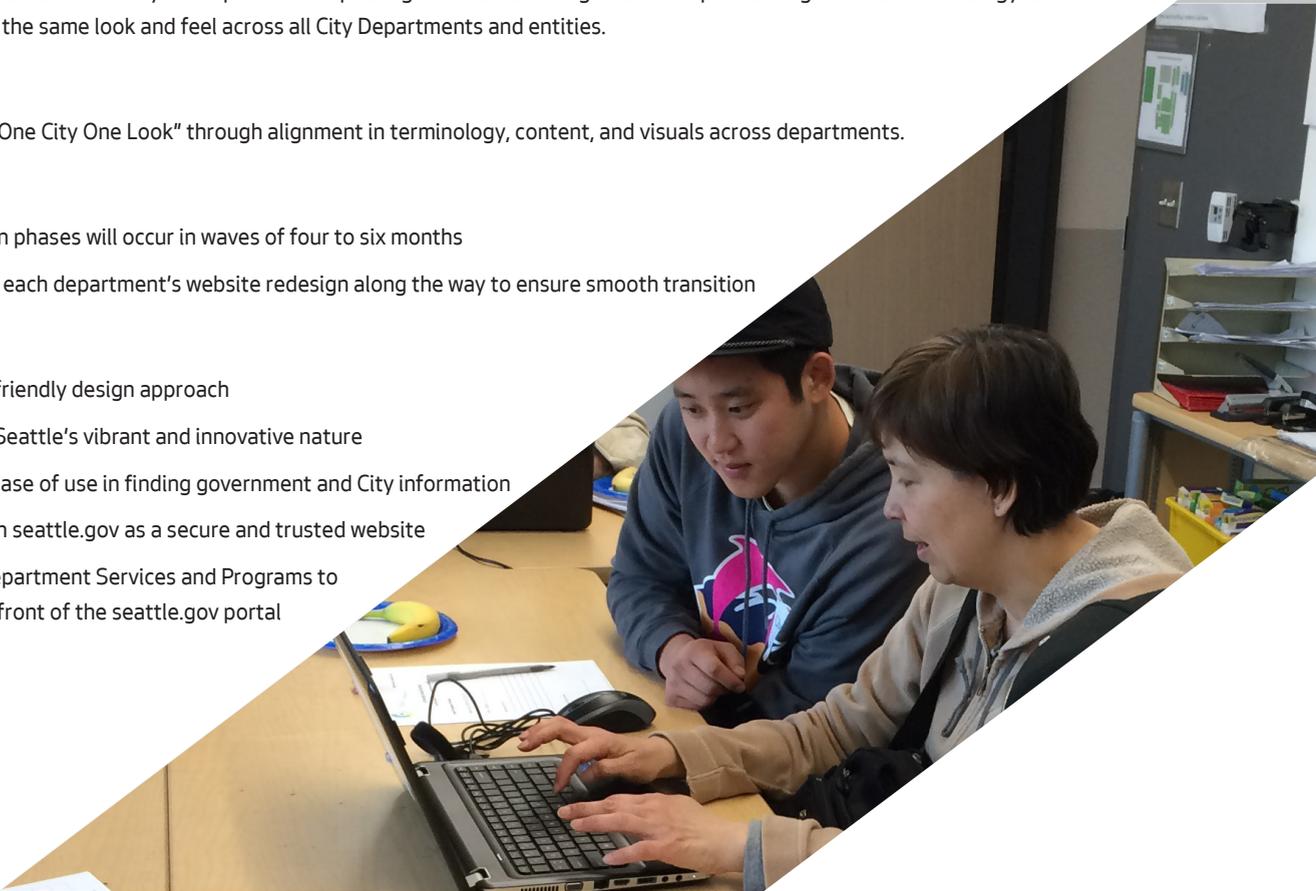
Hack-A-Thon

The City of Seattle invited data scientists, developers, designers, urban planners, and anyone with an interest in issues related to aging and accessibility to A City for All Hack-A-Thon on September 22-24. At the event, teams had an opportunity to work together to address issues affecting all ages and of all abilities in our community. As part of the Hack-A-Thon, the City released several new datasets on the data.seattle.gov open data platform, which offered insights into how the City supports residents as they age. Expert mentors from across City departments and local non-profits were on-site to guide teams as they began to design their solutions.

El Centro De La Raza

BUSINESS NEED

As part of a new program to lend technology resources to nonprofits on a no-cost, short-term basis, Seattle IT provided seven iPads to El Centro de la Raza. El Centro de la Raza used the iPads to conduct a survey with over 200 people for their Community Needs survey.

BENEFITS

- Allowed the team to use the REDCap application for building and managing surveys
- Saved time in conducting surveys and gathering data
- Reduced risk of human error in conducting surveys

"Making Seattle the leader among Age-Friendly cities is a primary goal of mine. This Hack-A-Thon will bring our tech savvy community, as well as those of us who are less tech savvy but willing and creative, to develop innovative Age-Friendly ideas."

— COUNCILMEMBER SALLY BAGSHAW (DISTRICT 7, PIONEER SQUARE TO MAGNOLIA)

Smart City Seattle

Seattle IT is developing a comprehensive, multi-department approach as the City continues to work toward becoming a smart city. This strategy will address several areas, including how we use data to better provide City services, how we connect our residents and visitors digitally, and how we improve the day-to-day experience in a proactive way. Several projects are already in motion.

(https://www.seattle.gov/tech/initiatives/smart-cities)

Technology Investments in the Community

Seattle IT awarded $430,000 for digital equity programs to 15 local organizations. The Technology Matching Fund grants are part of the City's Digital Equity Initiative that works to increase connectivity, digital skills training, and provides devices and technology support.

CASE STUDY: Seattle Department of Transportation

SDOT is using real-time data from sensors in the ground to better direct traffic flow. In addition to sensor deployments, Seattle is proactively working on policies that will affect future transportation and connectivity issues, including autonomous vehicle technology, 5G networks, and data utilization.

Privacy and Surveillance

The City collects and processes resident and business data every day — from paying a utility bill, to browsing a web page, to response calls from police, fire, and other emergency services. The increasing complexity of emerging technologies, business systems, and laws mean the City takes the appropriate steps to facilitate the collection, use, and disposal of data that balances the needs of the City to conduct its business with individual privacy.

In 2015, we designed a citywide Privacy Program to provide guidance and tools to City employees when working with personal information.

2017 Surveillance Ordinance

GOAL
Provider greater transparency to the Council and public
when the City acquires technology. The new
Ordinance requires City Council approve some types of technology before acquisition.

APPLICATION
The Ordinance applies any time a City employee wants to begin using a new technology.

PROCESS
The employee must complete a self-assessment process prior to acquisition.

CASE STUDY: Seattle City Light – Advanced Metering Initiative (AMI)

Advanced Metering is a building block for a more efficient electric system, often called the smart grid. It will provide many benefits to customers and greatly improve operational efficiencies within City Light. The meters will:

- Empower customers to make energy-saving choices
- Improve customer service
- Reduce environmental impact

This year, the City conducted a Privacy Impact Assessment (PIA) for Seattle City Light's new Advanced Metering Initiative. The PIA is designed to outline the anticipated privacy impacts from a City project or program that collects, manages, retains or shares personal information from the public. The PIA resulted in a series of recommendations and actions to keep Seattle City Light customer information safe and secure.

(http://www.seattle.gov/light/ami/metering.asp)

Open Data

The Open Data Program makes the data generated by the City of Seattle openly available to the public. Easy access to this data provides many benefits to City residents:

- Increases quality of life through City transparency, accountability, and comparability
- Promotes economic development and research
- Improves internal performance management

(https://data.seattle.gov/)

OPEN DATA PROGRAM 2017 KEY PRIORITIES

Priority: Improve Open Dataset publishing tool

Developed a new Open Data Intake tool to increase ease of submitting new datasets for release to the public.

Priority: Improve quality of life of data platform

Conducted an audit of the data platform and created code that detects privacy and quality issues.

Priority: Increase Discoverability

Launched a major redesign of the Open Data Portal to promote usability.

Priority: Complete Privacy Risk Assessment

Delivered the final report and recommendation in December.

Priority: Generate awareness of Open Data

Utilized social media and monthly City staff meetings to raise awareness.

Broadband Privacy Rule

Seattle IT Director's Rule 2017-01

The Seattle IT Director's Rule provides additional procedures the Office of Cable Communications will implement to determine if a franchised cable operator complies with requirements of past Seattle Municipal Code Ordinances.

Specifically, the Ordinance requires cable companies to:

- Protect collecting or sharing customer information and viewing/watching data unless it's absolutely necessary
- Tell customers when their information is being shared
- Destroy any personally identifiable information within 90 days unless required for a necessary business purpose or court order
- Provide free and easy options for customers to be removed from mailing lists
- Permanently remove a customer from a mailing list after the customer has "opted out"

Cable Franchise Renewal

Seattle approved an ordinance to renew the cable franchise with Wave Broadband for a 10-year term. Wave is a small, regional cable operator, serving approximately 8,500 cable TV subscribers in Seattle.
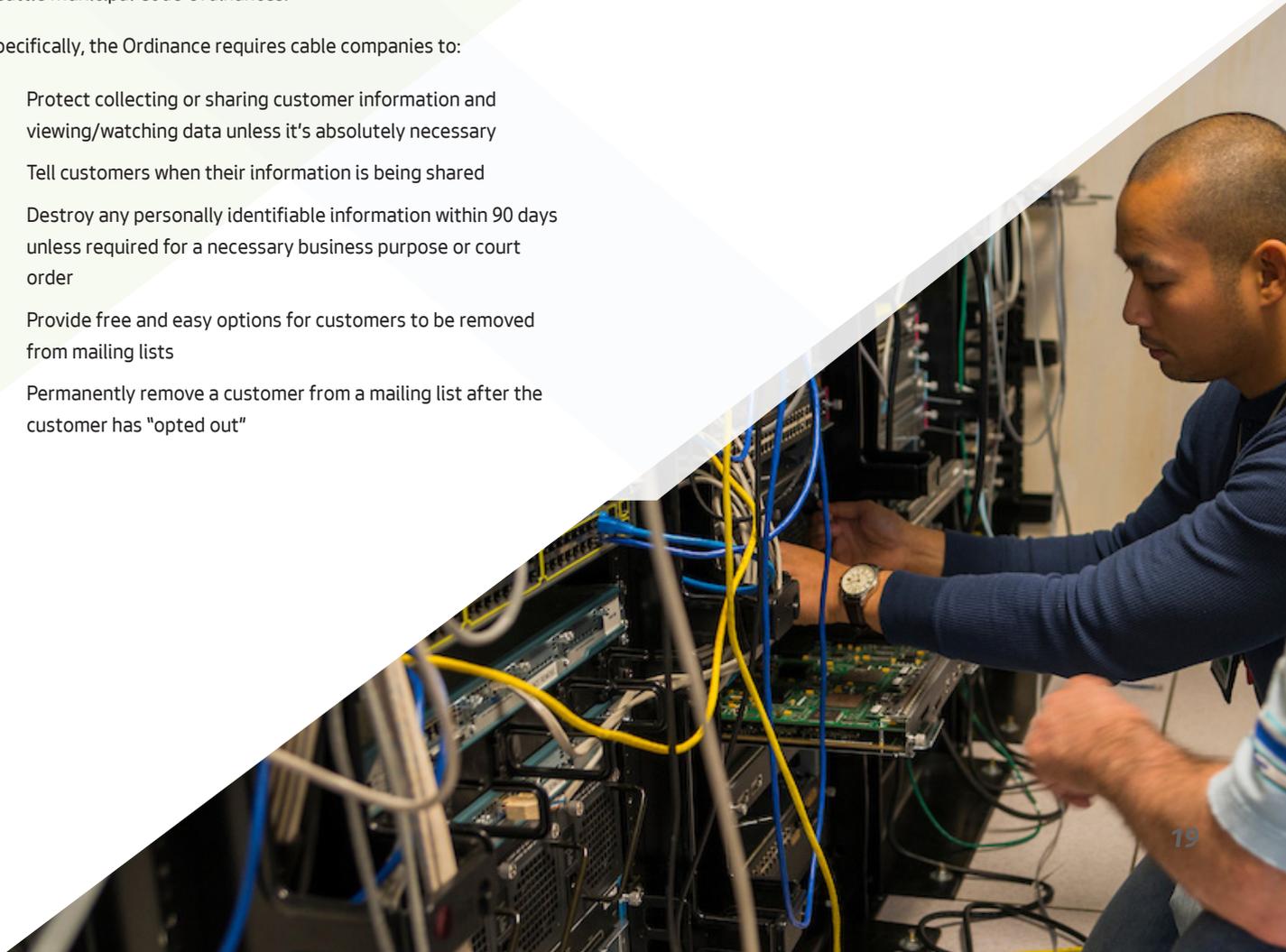
HOW WE HELPED CITY OF SEATTLE EMPLOYEES IN 2017

Seattle IT works to enable a productive and efficient city workforce. Seattle IT made great strides in 2017 to streamline systems and create new processes to make it easier for City of Seattle employees to carry out the mission of their departments.

MASTER SPACE PLAN

The Seattle IT Master Space plan is a coordinated effort created to support the consolidation of IT services across the City, to be completed by 2020. The goal of the project is to co-locate critical functions within IT while simultaneously providing a modern, efficient, and attractive workplace for employees. The three-year plan affects a total of seven floors that will be occupied by IT staff.

The project will result in:

- More conference rooms and collaborative space
- Expanded and updated break room areas
- Modern and stylish workspaces
- More efficient use of space

DESKTOP REPLACEMENT PROGRAM

Working closely with the City Budget Office, Seattle IT launched a new program in 2017 to provide for life-cycle replacement of City standard desktop and laptop computers across all departments. The program kicked off by using departmental stock left over from 2016 and created purchase requests to stock up for the program in 2018 and beyond.

Highlights of the program include:

- Aligns with a five-year expected lifespan of technology tools
- Ensures City personnel have current technology tools to efficiently conduct City business
- Provides opportunity to partner with local college students to provide them with real world business experience

INWEB

Business Need

City employees use internal websites or InWeb sites to keep and organize critical information for their departments. The existing framework for InWeb sites and content is outdated and difficult to maintain and keep current. Many City departments are looking to upgrade and improve their InWeb sites. As part of the City's Office 365 cloud implementation, Seattle IT established SharePoint Online (SPO) as the City's standard for staff collaboration and Citywide, internal publishing needs and will build the new intranet on the SPO Platform.

Project Description

Create a unified, flexible framework for City departments to update their intranet sites, enabling a consistent self-service model that can be used by all departments. By having a consistent model on the same platform, City users will benefit from a one-stop source for information, better search-ability of City resources, and enhanced ability to publish content shared across departments. Scoped at providing migration of intranet content for the FAS and IT Departments for the purposes of this project, others may follow suit and in doing so, leverage the printed and video training materials that will be furnished by the project.

SURFACE TABLETS

Seattle IT has introduced Surface Tablets to City departments to help store and access data through the cloud, rather than through paper documents.

CASE STUDY: Seattle Fire Department

For the Seattle Fire Department, cloud access through Surface Tablets and station desktops means the ability to use Electronic Health Records (eHR), which improves:

- Data tracking
- Patient overview information
- Quality management

Seattle Fire sees nearly 80,000 emergency medical incidents in a year, presenting a backlog of about 12 months in processing. This backlog prevents the ability to track health trends. eHR provides firefighters with real-time access to information allowing for more patient-centered approaches and more efficient solutions.