

Chapter 14 - Department of Information Technology

The Department of Information Technology (DIT) plans, directs, and coordinates the city's information technology program. It sets and enforces citywide technology and data security standards and policies. The department also maintains and manages the city's computer network and data processing operations 24 hours a day, 7 days a week.

The department's goals are to:

- Optimize the use of technological resources and expertise to meet the needs of city employees and citizens;
- Provide a strategic technological direction for the city;
- Ensure that computer resources are secure from unauthorized access while also promoting user innovation and self-sufficiency; and
- Deploy E-government, mobile, and social media initiatives to further support and enhance services delivered to citizens.

In addition to acquiring technological goods and services, administration is responsible for the budget and personnel matters of the department's five divisions:

Applications	Enterprise Resource Planning — Customer Service Representative	Operations	Radio and Network	Technical Support
<ul style="list-style-type: none">• Performs computer systems development and support• Provides consulting services to end users and city administrators	<ul style="list-style-type: none">• Provides technology support for the city's financial management system• Offers computer services representative support to city agencies	<ul style="list-style-type: none">• Coordinates and executes central and remote computer operations within the city• Maintains disaster recovery planning• Manages help desk call center• Document imaging	<ul style="list-style-type: none">• Supports city communications systems• Manages tower, fiber, and wireless construction projects	<ul style="list-style-type: none">• Administers systems software for the mainframe and midrange computers• Enforces policies and procedures to monitor and prevent attacks on the city's information system

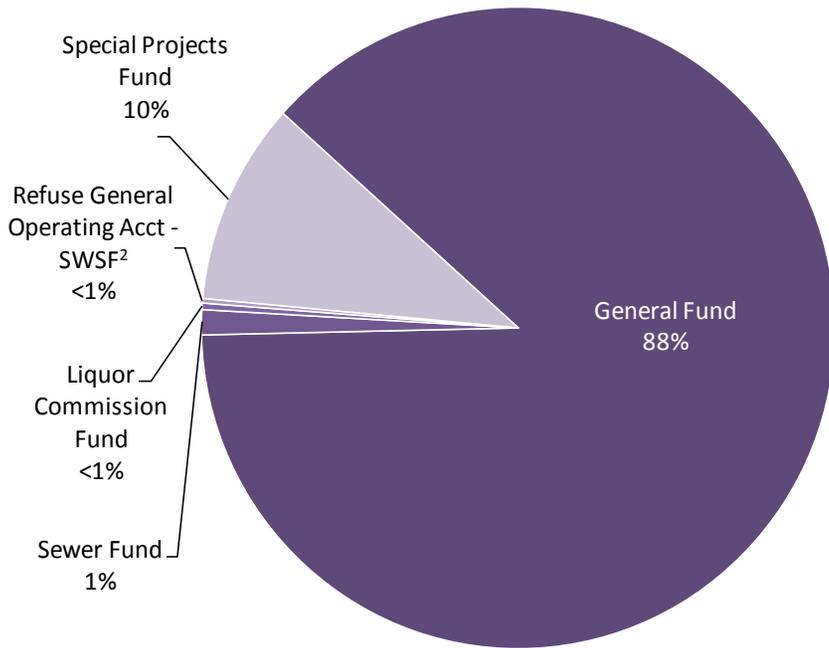


To provide information technology products, services, guidance, and direction for city agencies to serve the public in a cost-effective and efficient manner.

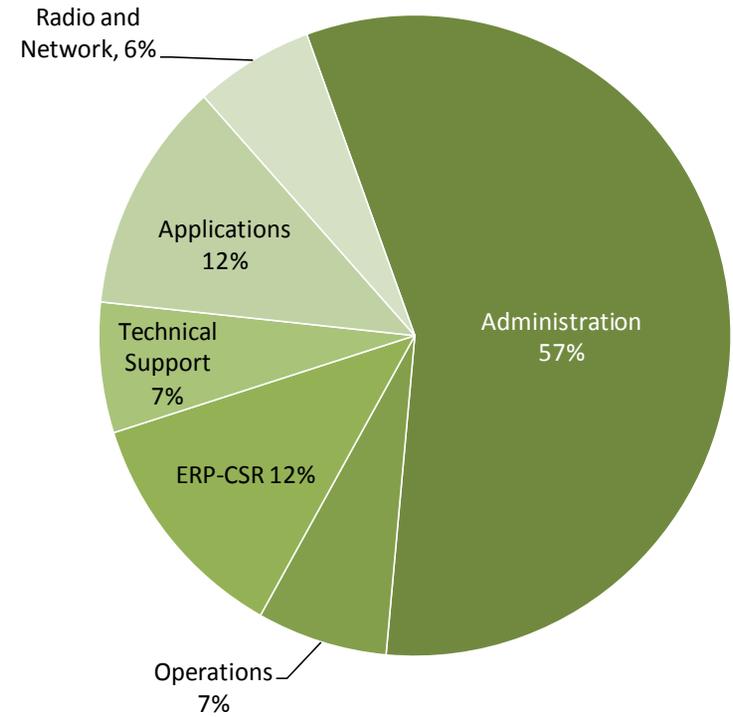
Mission Statement

Spending and Staffing

Fund Sources¹



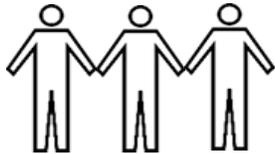
Fund Uses¹



	Total Operating Expenditures (\$ millions)	Administration (\$ millions)	Revenues (\$ millions)	Staffing			Overtime Expenditures ⁴	
				Total Authorized FTE	Total Vacant FTE	Cost Per FTE ³	Total	Non-Holiday
FY 2015	\$21.94	\$13.70	\$3.03	144	14	\$152,348	\$181,170	\$155,233
FY 2016	\$20.07	\$11.55	\$2.65	148	17.5	\$135,597	\$188,538	\$164,698
FY 2017	\$21.51	\$12.99	\$1.93	150	18.5	\$143,419	\$142,644	\$114,646
FY 2018	\$21.35	\$12.47	\$2.94	152	18.0	\$140,483	\$130,398	\$106,487
FY 2019	\$21.19	\$12.08	\$2.88	152	20.0	\$139,417	\$142,748	\$115,474
Change from last year	-1%	-3%	-2%	0%	11%	-1%	9%	8%
Change over last 5 years	-3%	-12%	-5%	6%	43%	-8%	-21%	-26%

Source: Department of Budget and Fiscal Services. ¹Percentages do not total 100% due to rounding. ²SWSF=Solid Waste Special Fund. ³Cost per FTE = Operating Expenditures/Total Authorized FTE. ⁴Overtime pay is established by bargaining unit, as applicable.

Spending and Staffing



Total Vacant FTE

20 FTE ▲ **11%**

Total Vacant FTE has increased 11% since last fiscal year. The increase can be attributed to difficulties in finding suitable applicants to fill the positions.



Overtime Expenditures

\$143 K ▲ **9%**

The FY 2019 increase in overtime expenditures over FY 2018 can be attributed to coverage for vacant positions and increasing maintenance being performed on the old EDACS radio system.

FY 2019 ACCOMPLISHMENTS

- Provided microservices training for accelerated application development and data sharing amongst constituents
- Upgraded the proxy, Internet firewalls from a physical appliance to a virtual appliance, and upgraded Internet and extranet firewalls and application delivery appliances

Five Year Trend



- Total overtime expenditures decreased 21% between FY 2015 and FY 2019 from \$181,170 to \$142,748. The decrease is due to varying position vacancy rates over the last five years.



Honolulu Dashboard provides a quick and easy way to review our City's progress on key City services and issues.

Clicking on an individual dashboard tells you about the topic, providing background and additional data, through hyperlinks and visualizations. Data is updated regularly depending upon the subject matter.

Homelessness



Source: Department of Information Technology

CHALLENGES MOVING FORWARD — FY 2020

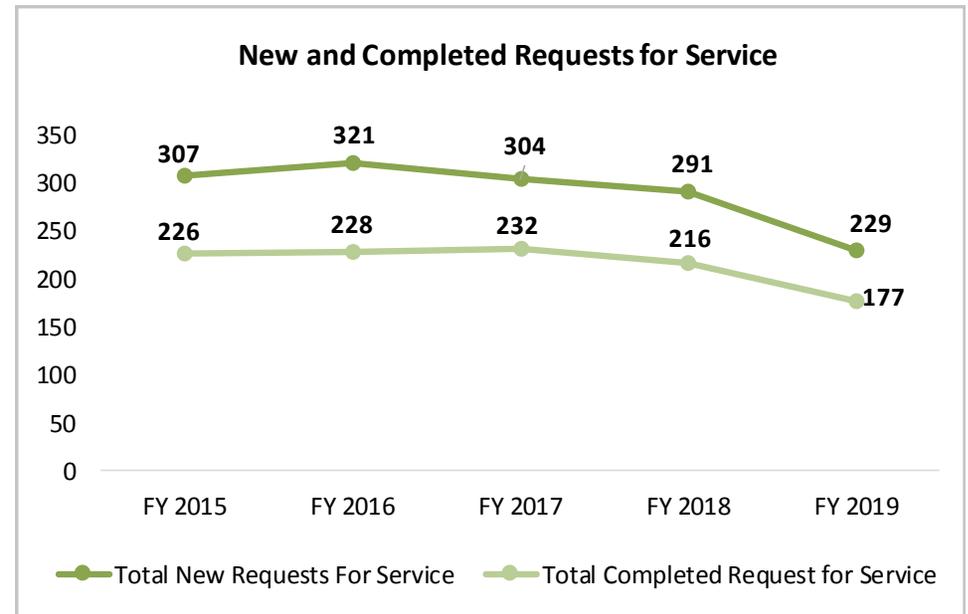
- Lack of physical space, funding, and qualified staff to accomplish projects

Applications

The Applications Services Division performs the full range of computer systems development including feasibility studies, systems analysis and design, computer programming, and Request for Proposals and Request for Bids (RFP/ RFB) development. It performs systems testing, personnel training, and detailed documentation of the developed systems; maintains implemented systems both developed in house and acquired; provides consulting services to end users; provides electronic data management; assists the user department to plan and coordinate technology goals in line with enterprise-wide technology objectives; and coordinates all efforts between the user department and DIT as it relates to the deployment of technology. It also provides consulting services to end users and city administrators with strategic planning information resources in overall city operations.

New requests for service decreased 21% last year and 25% over the last five years. The department attributes the decrease to the previous year in which DIT was working towards a new and more secure infrastructure causing a spike in the number of requests for services.

Outstanding requests at the end of year saw an increase of 10% over the last five years and a decrease of 23% from last year, which the department stated was mainly due to a decrease in new service requests along with completion of a new, secure infrastructure.



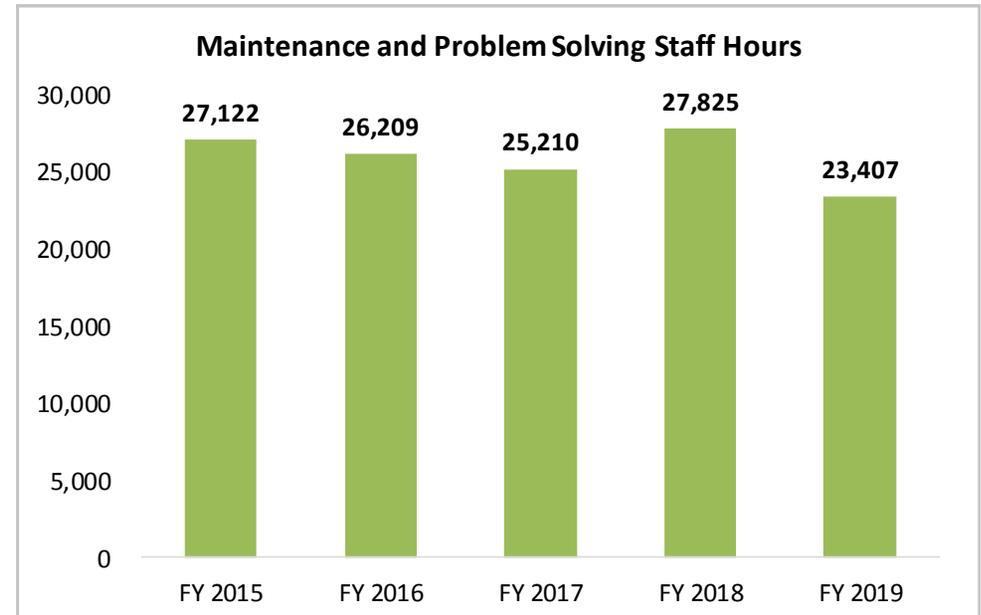
Source: Department of Information Technology

	Applications			
	Operating Expenditures (\$ millions)	Total New Requests For Service	Total Completed Requests for Service	Total Requests Outstanding at End of Year
FY 2015	\$2.25	307	226	30
FY 2016	\$2.39	321	228	53
FY 2017	\$2.38	304	232	40
FY 2018	\$2.37	291	216	43
FY 2019	\$2.48	229	177	33
Change from last year	5%	-21%	-18%	-23%
Change over last 5 years	10%	-25%	-22%	10%

Source: Department of Budget and Fiscal Services, and Department of Information Technology.

The Enterprise Resource Planning (ERP) and Customer Service Representative (CSR) Division provides data processing support for the citywide ERP financial management system and integration into the user agency’s workflow processes in the city, conducts evaluations of user agency needs, provides technology support services, and designs and develops automated systems and procedures. The division also assists in developing plans and obtaining approvals, and implements the city’s technology plans with regards to the ERP financial management system and other related automated systems. Each agency within the city has a CSR to support the IT needs of that department and its end-users.

Over the past year, maintenance and problem solving (staff hours) has decreased by 16% from 27,825 to 23,407 and 14% over the past five years. The department attributes the decrease in maintenance and problem solving (staff hours) to the decreased number of division staff.



Source: Department of Information Technology

Enterprise Resource Planning - Customer Service Representative				
	Operating Expenditures (\$ millions)	Maintenance and Problem Solving (Staff Hours)	Analysis and Programming (Staff Hours)	Overhead (Staff Hours)
FY 2015	\$2.35	27,122	7,232	1,808
FY 2016	\$2.40	26,209	6,989	1,747
FY 2017	\$2.36	25,210	7,420	1,855
FY 2018	\$2.47	27,825	7,420	1,855
FY 2019	\$2.54	23,407	6,242	1,560
Change from last year	3%	-16%	-16%	-16%
Change over last 5 years	8%	-14%	-14%	-14%

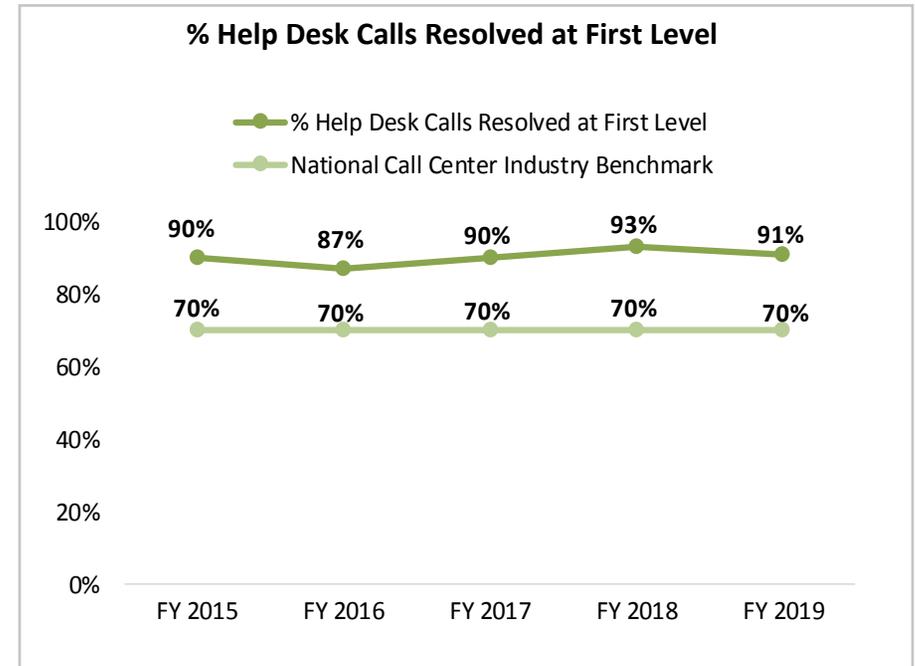
Source: Department of Budget and Fiscal Services, and Department of Information Technology.

Operations

The Operations Division plans, administers, coordinates, and executes central and remote computer system operations of the city's computer facilities island-wide. Operations also performs data entry services, assures data processing accuracy, enterprise imaging and document management, maintains disaster recovery planning, manages the help desk call center, and controls and maintains the city data center computer equipment and network.

The Operations Division has been promoting document scanning and shredding throughout the city departments, and division staff started the first phase of the data center renovation.

The percentage of help desk calls resolved at the first level has increased by 1% in the past five years but decreased 2% in the past year. According to the department, while it is difficult to pinpoint the continued high percentage of first level response, the department can closely relate the high percentages to the technicians' knowledge for troubleshooting various issues. Technicians are assigned to a specific agency, which allows them to become familiar with the network connections, hardware devices, and software applications, thus resolving issues at first level. The department reports a reduction in problems since implementing monitoring systems that checks and hosts services. By monitoring network services and host resources, department staff have become proactive, and allow the helpdesk to focus attention on desktop support.



Source: Department of Information Technology

	Operating Expenditures (\$ millions)	Production Online Systems			% Help Desk Calls Resolved at First Level ²
		Regular Business Hours	24 hours	Changes Implemented ¹	
FY 2015	\$1.28	99.9%	99.2%	823	90%
FY 2016	\$1.28	99.0%	98.0%	923	87%
FY 2017	\$1.31	98.0%	98.0%	821	90%
FY 2018	\$1.37	98.4%	98.4%	780	93%
FY 2019	\$1.41	99.9%	99.0%	792	91%
Change from last year	3%	2%	<1%	2%	-2%
Change over last 5 years	11%	0%	<-1%	-4%	1%

Source: Department of Budget and Fiscal Services, and Department of Information Technology. ¹Changes implemented is the process of documenting change approvals, user acceptance, or authorizations for hardware and software and software promotion. ²Issues at the first level can be resolved over the phone. Issues at the second level require a tech to be sent out into the field to resolve the problem. Issues at the third level requires the department to ask for assistance from a specialty group (i.e., Network, Security, Infrastructure).

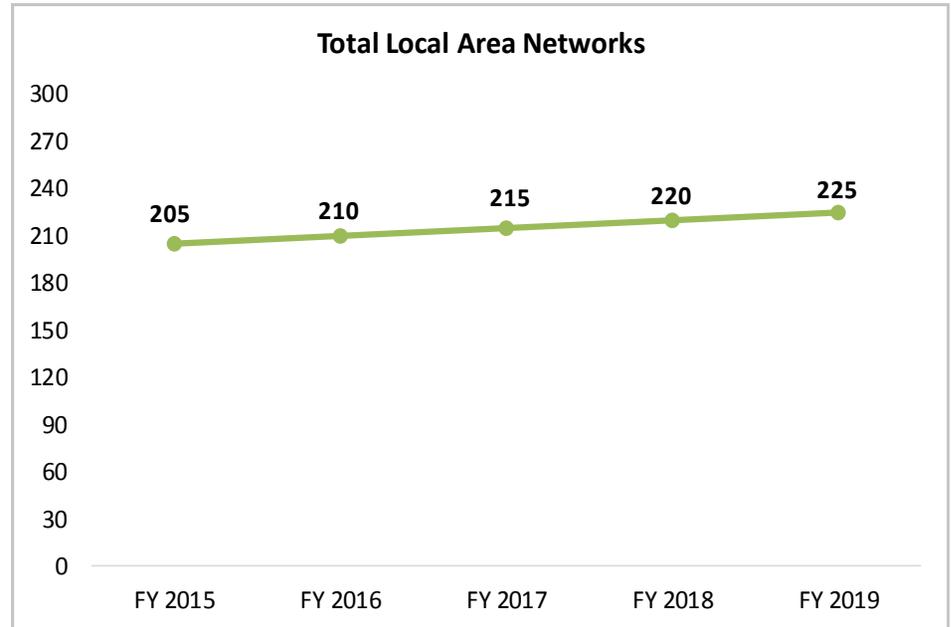
Radio and Network Infrastructure and Technical Support

The Radio and Network Infrastructure Division manages and supports city communications systems, including radio, microwave, fiber, wired, and 800 MHz systems and facilities. The division also manages tower, fiber, and wireless construction projects.

Over the past five years, total local area networks (LAN) has increased by 10%, from 205 to 225. According to the department, the continued increase of LAN is attributed to the creation of new agencies, such as the Office of Climate Change, Office of Housing, Office of Economic Development, and Department of Land Management.

Technical Support

The Technical Support Division plans, installs, administers, and maintains systems software for the mainframe and midrange computers. The division also supports and controls the servers, communications networks, and storage area networks. Responsibilities also include protection, security, and integrity of the city's information resources. Security-related functions include enforcing policies and procedures in monitoring and preventing attacks on the city's information system.



Source: Department of Information Technology

	Radio and Network			Technical Support		
	Operating Expenditures	Total Local Area Networks	Total 800 MHz Zone Sites	Operating Expenditures (\$ millions)	Total Employees with Access IDs (Mainframe)	Total Employees w/User IDs (Servers)
FY 2015	\$883,089	205	12	\$1.48	7,975	8,073
FY 2016	\$966,155	210	12	\$1.49	8,082	9,314
FY 2017	\$949,678	215	12	\$1.52	7,952	7,850
FY 2018	\$1,295,000	220	12	\$1.38	7,952	7,711
FY 2019	\$1,286,038	225	12	\$1.39	8,002	7,893
Change from last year	-1%	2%	0%	1%	1%	2%
Change over last 5 years	46%	10%	0%	-6%	<1%	-2%

Source: Department of Budget and Fiscal Services, and Department of Information Technology.

-This Page Intentionally Left Blank-