# Information Technology

## Overview

The Department of Information Technology (DoIT) builds, manages, and maintains City government information technology infrastructure including radio, data, communications, and computer networks. DoIT also manages the Seattle Channel, the City's central data center, and the development of computer application projects on behalf of the City. The central data center houses most of the City's computer servers and computing architecture. DoIT's Capital Improvement Program (CIP) provides new technology investments, and also upgrades, maintains, and improves the City's existing technology networks and systems.

## 2014-2019 CIP

DoIT's 2014-2019 Adopted CIP includes $37.5 million in appropriation for 2014 with funding coming from a number of sources including rates/allocations to City departments and external partners, Cable Franchise Fees, collected reserve funds, bonds, and grants. The Adopted CIP continues the project to replace the existing data center with the Next Generation Data Center and also includes two new projects; the Information Technology Security Program and Technology Management Tools as described in greater detail below.

**Next Generation Data Center**

In 2012, the City identified an electrical system problem in the Seattle Municipal Tower (SMT) that directly impacted the City's primary data center and other information technology infrastructure housed in the SMT. City staff repaired the system and determined that to avoid similar problems in the future the City needed a new approach to data system management. The City hired an engineering consultant in 2012 to develop preliminary options and costs for an upgraded system of data centers. The City set a three-year timeline for the project with initial funding provided in 2013.

The project Steering Committee, which includes senior executives from DoIT, Finance and Administrative Services, City Budget Office, Seattle Police Department, Seattle City Light and Seattle Public Utilities, approved the following strategy for the new data center:

- Use two locations to maximize options for data recovery in the event of an emergency, with a new primary facility within the greater Puget Sound area and a smaller secondary facility in a location outside the Puget Sound region;
- Locate the data center in an existing facility already outfitted for that purpose rather than building a new facility. This option has lower upfront costs and a faster move-in timeframe;
- Acquire up to 6,000 square feet at the primary facility, with an additional 4,000 square feet maximum at the secondary location; and
- Adopt guiding principles for how departments will share network services, storage, management services and physical space in the new data center.

In 2014, the City will develop a detailed design addressing the technology, facility, governance, services and relocation process. In addition, DoIT will begin buying equipment, testing and piloting and final location selection. Preliminary cost estimates for the new data center range from $27 million to $39 million depending on which choices are made to meet the City's needs. In 2014, the $2.6 million of project costs are paid with available fund balance in the DoIT operating fund and future costs will be included in the allocated rates to departments. DoIT expects to complete the project in 2015. While the City's goal is to incorporate all systems into the new data center, there are a number of critical systems that are housed outside the City's main data center. DoIT is working with other departments to create a

plan to either move these systems into the new data center or upgrade the systems to increase resiliency and business continuity.

**Information Technology (IT) Security Program:** Recognizing the importance of data security, DoIT is consolidating and centralizing security related projects that were previously spread across different programs and projects. Consolidating the IT security projects will allow costs to be more easily tracked.

**Technology Management Tools:** This project upgrades the City's outdated help desk ticket system and change management system that tracks network problems. This upgrade will replace two systems with one system to allow DoIT to track problems in the City's information technology environment more efficiently. DoIT recommends making this change in 2014, rather than the original 2015 plan, to better coincide with the implementation of the Next Generation Data Center project and leverage other changes that will need to be made at the same time. DoIT will use available fund balance to cover the 2014 project costs.

The remainder of the DoIT 2014-2019 Adopted CIP focuses on routine maintenance, replacement and upgrades for existing system. The 2014 projects include:

- Additional fiber optic cable link installation;
- Planning, repair, replacement, and modification of software, hardware, and electronics in the City's data and communications infrastructure;
- Equipment replacement and upgrades in the 800 MHz radio network program;
- Computing services architecture environment software and hardware replacement and upgrades; and
- Replacement of Seattle Channel equipment.

## Summary of Upcoming Budget Issues and Challenges

DoIT's CIP has grown steadily over the past twelve years and projects have been completed successfully and within time and budget. Upcoming challenges for the CIP include:

- The City's growing dependency on IT requires an increasing commitment to fund the associated support and replacement costs. In addition, the continued rapid rate of change in technology presents a major challenge for the City. User demands (both internal staff and constituents) around technology continue to grow as available functionality expands.

- To achieve more efficiency and reduce costs as a City, future technology decisions by departments need to take into consideration how best to combine projects, approaches and efficiencies across the City.

- The City needs to develop a Citywide strategy for IT systems in the event of a disaster. The increasing reliance of City staff on technology systems creates an increasing vulnerability in the event of a disaster. Critical City functions cannot be performed without access to technology systems and the data stored within them.

## Thematic Priorities

In addition to supporting Mayoral and Council goals for the City, DoIT has several thematic priorities which drive its work and consequently its operating and CIP budgets. These are:

- ***Ensure reliable maintenance and operation of the technology tools and systems supporting City departments' staff, missions, and services***. The reliable and continued operation of these systems is critical to the ability of City employees in all departments to perform their work. As such, a majority of DoIT's CIP supports "Asset Preservation": keeping these tools and systems continuously operational.

- ***Keep City technology and data safe, secure and compliant***. The increasing reliance of the City's operations on computer technology has been paralleled by both similar growth in the threats and risks to those systems as well as growth in the laws and regulations associated with electronic data and systems. As a result, there is a steady increase in the need for investments related to security and/or compliance with state and federal regulations, laws and requirements.

- ***Use Technology to make City government more accessible, accountable and transparent.*** With the rapid growth in the internet and the associated tech-savvy nature of the population, there is an increasing expectation that the City's information and processes will be readily available via technology.

- ***Improve Efficiency and Effectiveness***. From its earliest stages, the City has invested in technology to improve the efficiency and effectiveness of its staff in doing their jobs, and this continues to be a key driver for our investments. In addition, some technology investments can result in monetary savings and/or the ability to stretch limited resources further (e.g., virtualization of servers).

- ***Investments and Foundations for the Future.*** A key part of DoIT's mission is to perform strategic planning for the City within the technology sector and to ensure that the City's technology investments move in sync with what is happening in the broader industry and world. This includes planning for and investing in key technology trends and emerging technologies as appropriate.

## Project Selection Criteria

DoIT uses a multi-step process to identify and prioritize projects for inclusion in their CIP.

**STEP 1: Identification of Technology Needs and Opportunities**
In this step, needs and opportunities for technology investments are identified. Information is drawn from a number of sources, including:

- The Citywide Enterprise Technology Multi-Year Strategic Plan
- Citywide Technology Roadmaps (updated annually)
- Customer Requirements/Requests
- Asset Replacement Schedules
- Coordination with partners (regional efforts, vendor partners, etc.)
- Special studies including the 2012 IT Efficiencies Study

This step includes development of initial cost estimates and other resource requirements, potential timing, and dependencies.

**STEP 2: Identification of CIP and Non-Discretionary Projects**
In this step, items identified in Step 1 are filtered to determine if they are (1) CIP appropriate or not and (2) discretionary or not. Criteria for determining if they are CIP appropriate or not include:

- Overall dollar value
- Timeframe of implementation (e.g., multi-year project)
- Lifespan of investment
- Investment in/preservation of long-term infrastructure

Projects which are determined to be non-CIP in nature are moved for consideration and ranking with other department operating requests as part of the normal budget cycle.

Criteria for determining if they are non-discretionary include:

- Legally mandated (e.g., debt service, federal or state law/regulation changes, court orders, etc.)
- Urgent security or risk mitigation needs (e.g., major system failure, major security breach)
- Reimbursable services to others (e.g., DoIT manages a regional fiber consortium where the partners contract with DoIT to get work done).

Projects which are determined to be non-discretionary are automatically included in the CIP and budget proposal. Discretionary Projects proceed to Step 3.

**STEP 3: Prioritization of CIP Appropriate Discretionary Projects:**
The projects remaining after Step 2 are then screened to determine if they are a match for DoIT's normal maintenance/upgrade/replacement programs within the CIP. These projects tend to be smaller in scale (<$250,000), "like for like" replacements (e.g., old equipment replaced by new equipment with little to no functionality change) etc. These projects are rated by program managers based on criteria tailored to each program and implemented as annual funding allows.

Larger capital projects which are best implemented on a stand-alone basis due to the size and complexity of the project are evaluated and ranked separately based on the following criteria:

- Asset Preservation/Replacement/Maintenance
- Product Lifecycles
- Legal Requirements/Mandates
- Security/Risk Mitigation
- Reimbursable from other sources (other depts. or outside entities, grants, reserves)
- Leveraging Opportunities
- Dependencies (on other products, equipment, etc.; also on staff/resource availability/long-term supportability)
- Internal Customer Demands (including capacity) – including Mayoral/Council Priority
- External Customer Demands – Citizens, businesses, etc.
- External Drivers (vendor changes, regional commitments, etc.)
- Efficiency/Effectiveness Improvements/Resource Savings/ROI
- Key Future Trend/Forward-Looking/Pro-active

The final result is a list of prioritized large capital projects which are included in DoIT's budget for inclusion in the CIP.

## Future Projects

DoIT has identified a number of initiatives and issues that are on the horizon and will need to be addressed at some future point, but are not currently funded.

- **Infrastructure Replacement and Upgrades:** DoIT's CIP contains sufficient funding to cover routine replacement of lesser value items which occur every year (e.g., switches, mid-range servers, etc.). However, it is not funded sufficiently to cover some larger value, more intermittent, replacements that will be necessary.

- **Long-term Major Upgrades to Regional Radio System:** The City is part of the countywide public safety radio system. The King County system is interconnected to comparable radio systems in Pierce and Snohomish Counties. The current technology platform is approaching phased obsolescence and will need to be replaced or upgraded by 2017. A three-county committee of elected and appointed officials explored options for collaboration, including regional funding strategies, but eventually determined that each county needed to act independently, on its own time frame, to complete its own replacement or upgrade project. Currently, the plan is to include a levy for replacement of the King County radio system in the fall of 2014.

- **Software and Systems Replacement and Upgrades:** The CIP includes funding in 2014 for the replacement of the City's Email Archiving System. However, in addition to this funding to replace existing functionality, additional features for file and video archiving may be required in the future. DoIT's CIP does not currently include funds for that effort.

- **Future growth in capacity due to customer demands and usage**: The CIP includes funding to replace existing capacity, but it does not include funds to cover the routine growth in capacity. Increased City usage of technology combined with external legal retention requirements effectively ensures a continued growth in certain areas, such as data storage, of the IT infrastructure.

## Anticipated Operating Expenses Associated with Capital Funds

Operating expenses associated with DoIT's CIP projects are built into DoIT's operating budget. During the implementation phase of the Next Generation Data Center Project, DoIT will be operating both the existing data center facilities and the new facility simultaneously for an extended period. This will result in significantly increased operating costs for both 2014 and 2015. The 2014 operating costs are included in DoIT's 2014 Adopted Budget.

## City Council Provisos to the CIP

There are no Council provisos.

# Department of Information Technology

## Project Summary

| BCL/Program Name<br>Project Title & ID | LTD Actuals | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | Total |
|---|---|---|---|---|---|---|---|---|---|
| **Finance and Administration** | | | | | | **BCL/Program Code:** | | | **D1100** |
| Electronic Records Management System (D102TC008) | 0 | 150 | 3,000 | 0 | 0 | 0 | 0 | 0 | 3,150 |
| Next Generation Data Center (D102TC007) | 0 | 2,625 | 20,998 | 17,721 | 0 | 0 | 0 | 0 | 41,344 |
| Technology Management Tools (D102TC015) | 0 | 0 | 150 | 2,718 | 408 | 428 | 445 | 459 | 4,608 |
| **Finance and Administration** | 0 | 2,775 | 24,148 | 20,439 | 408 | 428 | 445 | 459 | 49,102 |
| **Office of Electronic Communications** | | | | | | **BCL/Program Code:** | | | **D4400** |
| Seattle Channel Maintenance and Upgrade (D404EC001) | 859 | 291 | 293 | 364 | 366 | 369 | 382 | 394 | 3,318 |
| **Office of Electronic Communications** | 859 | 291 | 293 | 364 | 366 | 369 | 382 | 394 | 3,318 |
| **Technology Infrastructure** | | | | | | **BCL/Program Code:** | | | **D3300** |
| 800 MHz Radio Network Program (D3RNRS) | 10,954 | 4,461 | 2,055 | 572 | 586 | 609 | 629 | 650 | 20,516 |
| Alternate Data Center (D301AR001) | 580 | 589 | 0 | 0 | 65 | 195 | 720 | 0 | 2,149 |
| Computing Services Architecture (D300CSARC) | 3,903 | 2,631 | 2,986 | 2,224 | 2,176 | 2,263 | 2,338 | 3,633 | 22,154 |
| Data and Telephone Infrastructure (COMMINFRA) | 15,438 | 2,841 | 2,352 | 2,952 | 3,100 | 2,680 | 2,768 | 2,781 | 34,912 |
| Enterprise Computing (D301CS001) | 3,300 | 0 | 2,170 | 1,175 | 526 | 547 | 565 | 2,643 | 10,926 |
| Fiber-Optic Communication Installation and Maintenance (FIBER) | 20,429 | 5,230 | 3,431 | 3,589 | 3,765 | 3,915 | 4,044 | 4,178 | 48,581 |
| **Technology Infrastructure** | 54,604 | 15,752 | 12,994 | 10,512 | 10,218 | 10,209 | 11,064 | 13,885 | 139,238 |
| **Technology Leadership and Governance** | | | | | | **BCL/Program Code:** | | | **D2200** |
| IT Security (D202TC001) | 0 | 0 | 272 | 121 | 267 | 236 | 244 | 331 | 1,471 |
| **Technology Leadership and Governance** | 0 | 0 | 272 | 121 | 267 | 236 | 244 | 331 | 1,471 |
| **Department Total*:** | 55,463 | 18,818 | 37,707 | 31,436 | 11,259 | 11,242 | 12,135 | 15,069 | 193,129 |

**Amounts in thousands of dollars*

# Department of Information Technology

## Fund Summary

| Fund Name & Code | LTD Actuals | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | Total |
|---|---|---|---|---|---|---|---|---|---|
| Information Technology Fund (50410) | 55,463 | 18,818 | 37,707 | 31,436 | 11,259 | 11,242 | 12,135 | 15,069 | 193,129 |
| **Department Total*:** | 55,463 | 18,818 | 37,707 | 31,436 | 11,259 | 11,242 | 12,135 | 15,069 | 193,129 |

**Amounts in thousands of dollars*

# Department of Information Technology

## 800 MHz Radio Network Program

| | | | |
|---|---|---|---|
| **BCL/Program Name:** | Technology Infrastructure | **BCL/Program Code:** | D3300 |
| **Project Type:** | New Investment | **Start Date:** | Q1/2002 |
| **Project ID:** | D3RNRS | **End Date:** | ONGOING |
| **Location:** | 700 5th Ave / Various | | |
| **Neighborhood Plan:** | Not in a Neighborhood Plan | **Neighborhood Plan Matrix:** | N/A |
| **Neighborhood District:** | Downtown | **Urban Village:** | Commercial Core |

This project funds the upgrades and replacement of software and hardware for the City of Seattle's portion of the King County Regional 800 MHz radio system. The 800 MHz radio system provides the communication infrastructure required for public safety operations such as 911, Medic One, Fire and Police.

| | LTD Actuals | 2013 Rev | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | Total |
|---|---|---|---|---|---|---|---|---|---|
| **Revenue Sources** | | | | | | | | | |
| Internal Service Fees and Allocations, Outside Funding Partners | 10,954 | 4,461 | 2,055 | 572 | 586 | 609 | 629 | 650 | 20,516 |
| **Total:** | 10,954 | 4,461 | 2,055 | 572 | 586 | 609 | 629 | 650 | 20,516 |
| **Fund Appropriations/Allocations** | | | | | | | | | |
| Information Technology Fund | 10,954 | 4,461 | 2,055 | 572 | 586 | 609 | 629 | 650 | 20,516 |
| **Total*:** | 10,954 | 4,461 | 2,055 | 572 | 586 | 609 | 629 | 650 | 20,516 |
| **O & M Costs (Savings)** | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

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# Department of Information Technology

## Alternate Data Center

| | | | |
|---|---|---|---|
| **BCL/Program Name:** | Technology Infrastructure | **BCL/Program Code:** | D3300 |
| **Project Type:** | New Investment | **Start Date:** | Q1/2008 |
| **Project ID:** | D301AR001 | **End Date:** | ONGOING |
| **Location:** | 700 5th AVE | | |
| **Neighborhood Plan:** | Not in a Neighborhood Plan | **Neighborhood Plan Matrix:** | N/A |
| **Neighborhood District:** | Downtown | **Urban Village:** | Commercial Core |

This project supports enhancements to and expansion of the City's Alternate Data Center (ADC), including the expansion from a cold site (facility and communications) to a warm site (some recovery equipment ready for immediate use) through the addition of hardware such as servers and storage and has the capability to restore certain software applications.

| | LTD Actuals | 2013 Rev | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | Total |
|---|---|---|---|---|---|---|---|---|---|
| **Revenue Sources** | | | | | | | | | |
| Internal Service Fees and Allocations, Outside Funding Partners | 580 | 589 | 0 | 0 | 65 | 195 | 720 | 0 | 2,149 |
| **Total:** | 580 | 589 | 0 | 0 | 65 | 195 | 720 | 0 | 2,149 |
| **Fund Appropriations/Allocations** | | | | | | | | | |
| Information Technology Fund | 580 | 589 | 0 | 0 | 65 | 195 | 720 | 0 | 2,149 |
| **Total*:** | 580 | 589 | 0 | 0 | 65 | 195 | 720 | 0 | 2,149 |
| **O & M Costs (Savings)** | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

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# Department of Information Technology

## Computing Services Architecture

| | | | |
|---|---|---|---|
| **BCL/Program Name:** | Technology Infrastructure | **BCL/Program Code:** | D3300 |
| **Project Type:** | New Investment | **Start Date:** | Q1/2008 |
| **Project ID:** | D300CSARC | **End Date:** | ONGOING |
| **Location:** | 700 5th AVE | | |
| **Neighborhood Plan:** | Not in a Neighborhood Plan | **Neighborhood Plan Matrix:** | N/A |
| **Neighborhood District:** | Downtown | **Urban Village:** | Commercial Core |

This project funds the regular replacement of server, data storage equipment and data center facilities operated on behalf of City departments by DoIT's computing services group. Timely replacement of this equipment provides stable infrastructure for the City. Equipment is replaced when it reaches the end of its useful life, which is typically no more than 5 years per industry standards.

| | LTD Actuals | 2013 Rev | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | Total |
|---|---|---|---|---|---|---|---|---|---|
| **Revenue Sources** | | | | | | | | | |
| To be determined | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1,218 | 1,218 |
| Internal Service Fees and Allocations, Outside Funding Partners | 3,903 | 2,631 | 1,986 | 2,224 | 2,176 | 2,263 | 2,338 | 2,415 | 19,936 |
| 2014 Multipurpose LTGO Bond Fund | 0 | 0 | 1,000 | 0 | 0 | 0 | 0 | 0 | 1,000 |
| **Total:** | 3,903 | 2,631 | 2,986 | 2,224 | 2,176 | 2,263 | 2,338 | 3,633 | 22,154 |
| **Fund Appropriations/Allocations** | | | | | | | | | |
| Information Technology Fund | 3,903 | 2,631 | 2,986 | 2,224 | 2,176 | 2,263 | 2,338 | 3,633 | 22,154 |
| **Total*:** | 3,903 | 2,631 | 2,986 | 2,224 | 2,176 | 2,263 | 2,338 | 3,633 | 22,154 |
| **O & M Costs (Savings)** | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

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# Department of Information Technology

## Data and Telephone Infrastructure

| | | | |
|---|---|---|---|
| **BCL/Program Name:** | Technology Infrastructure | **BCL/Program Code:** | D3300 |
| **Project Type:** | New Investment | **Start Date:** | Q1/2004 |
| **Project ID:** | COMMINFRA | **End Date:** | ONGOING |
| **Location:** | 700 5th Ave/Various | | |
| **Neighborhood Plan:** | Not in a Neighborhood Plan | **Neighborhood Plan Matrix:** | N/A |
| **Neighborhood District:** | Downtown | **Urban Village:** | Commercial Core |

This project provides funds to maintain, replace, and upgrade software and major hardware for the City's data and telephone switching systems. Updated technology and mandated manufacturer requirements often require changes to software and hardware. The selected projects focus on preventing unscheduled service disruption and system failures and also work to minimize the City's overall costs, increase reliability, and provide features that improve end-user productivity.

| | LTD Actuals | 2013 Rev | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | Total |
|---|---|---|---|---|---|---|---|---|---|
| **Revenue Sources** | | | | | | | | | |
| To be determined | 0 | 0 | 0 | 0 | 563 | 0 | 0 | 0 | 563 |
| General Obligation Bonds | 1,400 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1,400 |
| Internal Service Fees and Allocations, Outside Funding Partners | 14,038 | 2,841 | 2,352 | 2,952 | 2,537 | 2,680 | 2,768 | 2,781 | 32,949 |
| **Total:** | 15,438 | 2,841 | 2,352 | 2,952 | 3,100 | 2,680 | 2,768 | 2,781 | 34,912 |
| **Fund Appropriations/Allocations** | | | | | | | | | |
| Information Technology Fund | 15,438 | 2,841 | 2,352 | 2,952 | 3,100 | 2,680 | 2,768 | 2,781 | 34,912 |
| **Total*:** | 15,438 | 2,841 | 2,352 | 2,952 | 3,100 | 2,680 | 2,768 | 2,781 | 34,912 |
| **O & M Costs (Savings)** | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

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# Department of Information Technology

## Electronic Records Management System

| | | | |
|---|---|---|---|
| **BCL/Program Name:** | Finance and Administration | **BCL/Program Code:** | D1100 |
| **Project Type:** | New Investment | **Start Date:** | Q1/2013 |
| **Project ID:** | D102TC008 | **End Date:** | Q4/2014 |
| **Location:** | | | |
| **Neighborhood Plan:** | Not in Neighborhood Plan | **Neighborhood Plan Matrix:** | |
| **Neighborhood District:** | | **Urban Village:** | |

This project is a multi-year initiative to address a citywide need for an electronic records management system that will manage the retention of electronic records in all formats, provide efficient search and delivery tools for responding to business needs, public records requests and other legal matters, and allow direct online access to records of wide public interest. The project will begin with the the replacement of the City's current email archiving system and be followed by additional phases expanding electronic records management capabilities.

| | LTD Actuals | 2013 Rev | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | Total |
|---|---|---|---|---|---|---|---|---|---|
| **Revenue Sources** | | | | | | | | | |
| Internal Service Fees and Allocations, Outside Funding Partners | 0 | 150 | 0 | 0 | 0 | 0 | 0 | 0 | 150 |
| 2014 Multipurpose LTGO Bond Fund | 0 | 0 | 3,000 | 0 | 0 | 0 | 0 | 0 | 3,000 |
| **Total:** | 0 | 150 | 3,000 | 0 | 0 | 0 | 0 | 0 | 3,150 |
| **Fund Appropriations/Allocations** | | | | | | | | | |
| Information Technology Fund | 0 | 150 | 3,000 | 0 | 0 | 0 | 0 | 0 | 3,150 |
| **Total*:** | 0 | 150 | 3,000 | 0 | 0 | 0 | 0 | 0 | 3,150 |

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# Department of Information Technology

## Enterprise Computing

| | | | |
|---|---|---|---|
| **BCL/Program Name:** | Technology Infrastructure | **BCL/Program Code:** | D3300 |
| **Project Type:** | New Investment | **Start Date:** | Q1/2009 |
| **Project ID:** | D301CS001 | **End Date:** | ONGOING |
| **Location:** | 700 5th AVE | | |
| **Neighborhood Plan:** | Not in a Neighborhood Plan | **Neighborhood Plan Matrix:** | N/A |
| **Neighborhood District:** | Downtown | **Urban Village:** | Commercial Core |

This project provides for expansion and replacement of the City's enterprise class server, enterprise class storage, and mid-range class storage. The enterprise class server environment runs critical application software for finance and accounting, personnel, customer service and billing, and municipal court systems.

| | LTD Actuals | 2013 Rev | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | Total |
|---|---|---|---|---|---|---|---|---|---|
| **Revenue Sources** | | | | | | | | | |
| To be determined | 0 | 0 | 0 | 1,175 | 526 | 547 | 565 | 2,643 | 5,456 |
| General Obligation Bonds | 2,900 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2,900 |
| Internal Service Fees and Allocations, Outside Funding Partners | 400 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 400 |
| 2014 Multipurpose LTGO Bond Fund | 0 | 0 | 2,170 | 0 | 0 | 0 | 0 | 0 | 2,170 |
| **Total:** | 3,300 | 0 | 2,170 | 1,175 | 526 | 547 | 565 | 2,643 | 10,926 |
| **Fund Appropriations/Allocations** | | | | | | | | | |
| Information Technology Fund | 3,300 | 0 | 2,170 | 1,175 | 526 | 547 | 565 | 2,643 | 10,926 |
| **Total*:** | 3,300 | 0 | 2,170 | 1,175 | 526 | 547 | 565 | 2,643 | 10,926 |
| **O & M Costs (Savings)** | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

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# Department of Information Technology

## Fiber-Optic Communication Installation and Maintenance

| | | | |
|---|---|---|---|
| **BCL/Program Name:** | Technology Infrastructure | **BCL/Program Code:** | D3300 |
| **Project Type:** | New Investment | **Start Date:** | Q1/2004 |
| **Project ID:** | FIBER | **End Date:** | ONGOING |
| **Location:** | Various Locations | | |
| **Neighborhood Plan:** | Not in a Neighborhood Plan | **Neighborhood Plan Matrix:** | N/A |
| **Neighborhood District:** | In more than one District | **Urban Village:** | In more than one Urban Village |

This project provides for the installation and maintenance of a high-speed fiber-optic communication network for the City and its external fiber partners. The fiber network includes sites such as libraries, public schools, fire and police stations, community centers, and other City facilities. The use of fiber optics in communications increases the volume of transmission - the amount of data and video, the use of two-way radios for public safety, and the number of telephone calls - that can be conveyed. A fiber-optic network also allows for interconnectivity in the event of an emergency to other agencies and executives at the federal, state and local levels, increases the efficiency of City staff, and provides residents greater access to the City and external agencies that contribute to the network.

| | LTD Actuals | 2013 Rev | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | Total |
|---|---|---|---|---|---|---|---|---|---|
| **Revenue Sources** | | | | | | | | | |
| Internal Service Fees and Allocations, Outside Funding Partners | 20,429 | 5,230 | 3,431 | 3,589 | 3,765 | 3,915 | 4,044 | 4,178 | 48,581 |
| **Total:** | 20,429 | 5,230 | 3,431 | 3,589 | 3,765 | 3,915 | 4,044 | 4,178 | 48,581 |
| **Fund Appropriations/Allocations** | | | | | | | | | |
| Information Technology Fund | 20,429 | 5,230 | 3,431 | 3,589 | 3,765 | 3,915 | 4,044 | 4,178 | 48,581 |
| **Total*:** | 20,429 | 5,230 | 3,431 | 3,589 | 3,765 | 3,915 | 4,044 | 4,178 | 48,581 |
| **O & M Costs (Savings)** | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

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# Department of Information Technology

## IT Security

| | | | |
|---|---|---|---|
| **BCL/Program Name:** | Technology Leadership and Governance | **BCL/Program Code:** | D2200 |
| **Project Type:** | New Investment | **Start Date:** | Q1/2014 |
| **Project ID:** | D202TC001 | **End Date:** | ONGOING |
| **Location:** | 700 5th AVE | | |
| **Neighborhood Plan:** | Not in a Neighborhood Plan | **Neighborhood Plan Matrix:** | N/A |
| **Neighborhood District:** | Downtown | **Urban Village:** | Commercial Core |

This project provides funds to acquire, maintain, replace, and upgrade software and hardware for the City's IT security systems. Timely replacement and up to date maintenance is critical to ensuring the security of the City's IT systems and that data contained within them.

This program consolidates and centralizes IT Security related projects, which to date have been funded across many different parts of DoIT's organization. As those projects have grown in quantity and complexity that decentralization has become increasingly problematic. Consolidating these efforts into a single CIP will allow DoIT to more effectively and efficiently manage the expenditures and programs in this critical area and to do a better job of planning for future needs.

| | LTD Actuals | 2013 Rev | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | Total |
|---|---|---|---|---|---|---|---|---|---|
| **Revenue Sources** | | | | | | | | | |
| Internal Service Fees and Allocations, Outside Funding Partners | 0 | 0 | 272 | 121 | 267 | 236 | 244 | 331 | 1,471 |
| **Total:** | 0 | 0 | 272 | 121 | 267 | 236 | 244 | 331 | 1,471 |
| **Fund Appropriations/Allocations** | | | | | | | | | |
| Information Technology Fund | 0 | 0 | 272 | 121 | 267 | 236 | 244 | 331 | 1,471 |
| **Total*:** | 0 | 0 | 272 | 121 | 267 | 236 | 244 | 331 | 1,471 |

**This detail is for information only. Funds are appropriated in the budget at the Budget Control Level. Amounts are in thousands of dollars.*

# Department of Information Technology

## Next Generation Data Center

| | | | |
|---|---|---|---|
| **BCL/Program Name:** | Finance and Administration | **BCL/Program Code:** | D1100 |
| **Project Type:** | New Investment | **Start Date:** | Q1/2013 |
| **Project ID:** | D102TC007 | **End Date:** | Q4/2015 |
| **Location:** | 700 5th Ave / Various | | |
| **Neighborhood Plan:** | Not in a Neighborhood Plan | **Neighborhood Plan Matrix:** | N/A |
| **Neighborhood District:** | Downtown | **Urban Village:** | Commercial Core |

This project provides a multi-year plan to collect requirements, assess options, and develop and implement a plan to upgrade/replace the City's data center environments. The City's main data center facility is over ten years old and would require significant capital investments to address existing issues and would still not meet current standards for mission critical systems. The project will replace aging data center facility systems with more efficient environments that provide the increased resilience, maintainability, and disaster recover/business continuity to the City's information technology systems.

| | LTD Actuals | 2013 Rev | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | Total |
|---|---|---|---|---|---|---|---|---|---|
| **Revenue Sources** | | | | | | | | | |
| Internal Service Fees and Allocations, Outside Funding Partners | 0 | 0 | 1,700 | 3,533 | 0 | 0 | 0 | 0 | 5,233 |
| 2013 Multipurpose LTGO Bond Fund | 0 | 2,625 | 0 | 0 | 0 | 0 | 0 | 0 | 2,625 |
| 2014 Multipurpose LTGO Bond Fund | 0 | 0 | 19,298 | 6,902 | 0 | 0 | 0 | 0 | 26,200 |
| 2015 Multipurpose LTGO Bond Fund | 0 | 0 | 0 | 7,286 | 0 | 0 | 0 | 0 | 7,286 |
| **Total:** | 0 | 2,625 | 20,998 | 17,721 | 0 | 0 | 0 | 0 | 41,344 |
| **Fund Appropriations/Allocations** | | | | | | | | | |
| Information Technology Fund | 0 | 2,625 | 20,998 | 17,721 | 0 | 0 | 0 | 0 | 41,344 |
| **Total*:** | 0 | 2,625 | 20,998 | 17,721 | 0 | 0 | 0 | 0 | 41,344 |

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## Seattle Channel Maintenance and Upgrade

| | | | |
|---|---|---|---|
| **BCL/Program Name:** | Office of Electronic Communications | **BCL/Program Code:** | D4400 |
| **Project Type:** | New Investment | **Start Date:** | Q1/2009 |
| **Project ID:** | D404EC001 | **End Date:** | ONGOING |
| **Location:** | 600 4th AVE | | |
| **Neighborhood Plan:** | Not in a Neighborhood Plan | **Neighborhood Plan Matrix:** | N/A |
| **Neighborhood District:** | Downtown | **Urban Village:** | Commercial Core |

This project provides funds to maintain, replace, and upgrade the cablecasting and production systems for the Seattle Channel. This includes replacement of the channel's remaining analog equipment with digital ready gear and the on-going replacement of equipment that has reached the end of its useful life. The current replacement cycle will provide a new routing system, graphics generators, web interface equipment, studio control components, and equipment for coverage of council meetings. This plan will provide the Seattle Channel with an all digital, HD-ready infrastructure.

| | LTD Actuals | 2013 Rev | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | Total |
|---|---|---|---|---|---|---|---|---|---|
| **Revenue Sources** | | | | | | | | | |
| Internal Service Fees and Allocations, Outside Funding Partners | 859 | 291 | 293 | 364 | 366 | 369 | 382 | 394 | 3,318 |
| **Total:** | 859 | 291 | 293 | 364 | 366 | 369 | 382 | 394 | 3,318 |
| **Fund Appropriations/Allocations** | | | | | | | | | |
| Information Technology Fund | 859 | 291 | 293 | 364 | 366 | 369 | 382 | 394 | 3,318 |
| **Total*:** | 859 | 291 | 293 | 364 | 366 | 369 | 382 | 394 | 3,318 |
| **O & M Costs (Savings)** | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

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# Department of Information Technology

## Technology Management Tools

| | | | |
|---|---|---|---|
| **BCL/Program Name:** | Finance and Administration | **BCL/Program Code:** | D1100 |
| **Project Type:** | New Investment | **Start Date:** | Q1/2014 |
| **Project ID:** | D102TC015 | **End Date:** | ONGOING |
| **Location:** | 700 5th AVE | | |
| **Neighborhood Plan:** | Not in a Neighborhood Plan | **Neighborhood Plan Matrix:** | N/A |
| **Neighborhood District:** | Downtown | **Urban Village:** | Commercial Core |

This project provides funds to acquire, maintain, replace, and upgrade software tools to manage the City's technology systems.

Initially, this project will acquire and implement a modern IT Service Management Tools Suite which will provide a wide range of integrated tools including incident and change management, release and deployment management, license management, asset management, request management, workflow management, service catalog of services offered, service desk management, and end user self-service. The initial phase will focus on replacing the City's existing and obsolete Incident management and Change Management Systems. Future phases will focus on acquiring and implementing additional tools for the suite. Ongoing maintenance and eventual replacement/upgrades for these tools will be funded in this program in the future.

| | LTD Actuals | 2013 Rev | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | Total |
|---|---|---|---|---|---|---|---|---|---|
| **Revenue Sources** | | | | | | | | | |
| Internal Service Fees and Allocations, Outside Funding Partners | 0 | 0 | 150 | 0 | 408 | 428 | 445 | 459 | 1,890 |
| 2015 Multipurpose LTGO Bond Fund | 0 | 0 | 0 | 2,718 | 0 | 0 | 0 | 0 | 2,718 |
| **Total:** | 0 | 0 | 150 | 2,718 | 408 | 428 | 445 | 459 | 4,608 |
| **Fund Appropriations/Allocations** | | | | | | | | | |
| Information Technology Fund | 0 | 0 | 150 | 2,718 | 408 | 428 | 445 | 459 | 4,608 |
| **Total*:** | 0 | 0 | 150 | 2,718 | 408 | 428 | 445 | 459 | 4,608 |

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