# INFORMATION TECHNOLOGY

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## **Overview of Facilities and Programs**

The Department of Information Technology (DoIT) builds, manages, and maintains City government information technology infrastructure – radio, telephone, and computer networks that are used by other City departments to serve constituents. DoIT also manages the City's central data center, which houses most of the computer servers used by City departments, and directs the development of certain computer applications projects on behalf of other departments, primarily the public safety departments – Police and Fire.

The Capital Improvement Program (CIP) supports the Department's mission by providing for technology major upgrades and improvements to the City's existing networks and systems. It funds, for example, upgrades to the data and communications infrastructure, fiber optic links, major improvements in the public safety radio network, and new computer applications such as computer aided dispatch systems for Police and Fire.

#### **Highlights**

The Department's 2006 – 2011 Proposed CIP provides for the following projects:

- Planning, repair, construction, and modification of various improvements to the City's data and communications infrastructure:
- Installation of additional fiber optic cable links and spurs to various locations, including Seattle schools and under-served areas such as south and southeast Seattle;
- Replacement of software, hardware and electronics in the City's telephone and data network to introduce improved service and features that will be useful to City employees and constituents, specifically for 24-hour-a-day access to City services;
- Development and implementation of a replacement records management (RMS) computer system for the Seattle Police Department;
- Development and implementation of a replacement computer-aided dispatch (CAD) computer system for the Seattle Police Department; and
- Planning and acquisition of a message switch for public safety agencies.

## **Project Selection Process**

DoIT selects infrastructure projects based upon the following criteria and priorities:

**Project Identification**: DoIT staff work with departmental program directors as well as Citywide governing boards including the Information Technology Business Management Council, the Public Safety Board, and the Urban Area Security Grant Technical Assistance Working Group to identify potential projects. The criteria for project selection includes opportunities to enhance public safety agencies' response to emergencies; improve reliability of public safety technology systems; increase the availability of services to constituents with the goal of providing service delivery 24 hours a day, seven days a week; updating the City's major hardware and software systems; and increasing urban area security by implementing federal government technology and public safety security grants.

**Project Selection**: DoIT departmental program directors work with guidance from Citywide governance boards to review the list of potential projects and determine which projects best fit the list of CIP project criteria.

## **INFORMATION TECHNOLOGY**

**Project Scheduling and Budgeting**: After the project list is refined, DoIT works with the Department of Finance to enter the selected projects into the capital budget system. The budget system tracks each project and allows staff to cross-check projects against Mayoral and Council priorities.

## **Anticipated Operating Expenses Associated with Capital Facilities Projects**

A significant portion of the Department's operating budget is devoted to operating and maintaining CIP projects. Some CIP projects generate Operations and Maintenance (O&M) savings.

# **Project Summary**

BCL/Program Name & Project	Project ID	Life To Date	2005	2006	2007	2008	2009	2010	2011	Total
Technology Infrastruc	cture					BCI	_/Program	n Code:		D3300
800 MHz Radio Network Program	D3RNRS	2,158	1,292	762	0	13,130	100	0	0	17,442
Data and Telephone Program	COMMIN FRA	1,381	1,192	1,500	1,500	1,500	1,500	1,500	1,500	11,573
Equipment and Infrastructure Protection	UASI05	0	467	0	0	0	0	0	0	467
Fiber Optic Communication Installation and Maintenance	FIBER	1,613	2,500	2,500	1,000	1,000	1,000	1,000	1,000	11,613
Information Technology Disaster Recovery Test of Mission Critical Applications	REGION6	0	657	0	0	0	0	0	0	657
Seattle Justice Information Systems	SEAJIS	972	200	0	0	0	0	0	0	1,172
Seattle Police Department Computer Aided Dispatch	SPDCAD	263	2,965	0	0	0	0	0	0	3,228
Seattle Police Department Message Switch	SPDMES S	0	1,875	0	0	0	0	0	0	1,875
Seattle Police Department Record Management System	SPDRMS	1,619	3,600	0	0	0	0	0	0	5,219
Seattle Urban Area Communications Interoperability	UACOM M04	527	1,473	0	0	0	0	0	0	2,000
Technology Infrastructure Security Enhancements	UASI04	223	1,832	0	0	0	0	0	0	2,055
Urban Area Security Initiative for Wideband Wireless Pilot and Fibe		0	760	0	0	0	0	0	0	760
	ology tructur	8,756	18,813	4,762	2,500	15,630	2,600	2,500	2,500	58,061
<b>Department Total</b>		8,756	18,813	4,762	2,500	15,630	2,600	2,500	2,500	58,061

<sup>\*</sup>Amounts in thousands of dollars

# **Fund Summary**

Fund Name	LTD	2005	2006	2007	2008	2009	2010	2011	Total
2002B LTGO Capital Project Fund	179	4,666	0	0	0	0	0	0	4,845
Information Technology Operating Fund	8,577	14,147	4,762	2,500	15,630	2,600	2,500	2,500	53,216
Department Total	8,756	18,813	4,762	2,500	15,630	2,600	2,500	2,500	58,061

#### 800 MHz Radio Network Program

BCL/Program Name: Technology Infrastructure BCL/Program Code: D3300

Project Type: New Investment Start Date: 1st Ouarter 2002

Project ID: D3RNRS End Date: Ongoing

**Location:** Various

Neighborhood Plan:Not in a Neighborhood PlanNeighborhood Plan Matrix:N/ANeighborhood District:Not in a Neighborhood DistrictUrban Village:Not in an Urban Village

The 800 MHz Radio Network Program upgrades and replaces 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 health and safety operations such as 911, Medic One, Fire, and Police. System upgrades and replacement ensures continued manufacturer support and overall communication functionality. The project is funded by reserves from the Information Technology Fund. Costs shown in 2008 reflect an anticipated major upgrade of the technology by the manufacturer. Funding levels beyond 2009 will be determined in future years. There are no anticipated operations and maintenance costs associated with this project.

,	LTD	2005	2006	2007	2008 2009	2010	2011	Total
Revenue Sources Internal Service Fees and Allocations, Outside Funding Partners	2,158	1,292	762	0 13,	,130 100	0	0	17,442
Project Total:	2,158	1,292	762	0 13,	,130 100	0	0	17,442
Fund Appropriations/Allocations Information Technology Operating Fund	2,158	1,292	762	0 13,	,130 100	0	0	17,442
Appropriations Total*	2,158	1,292	762	0 13,	,130 100	0	0	17,442
O & M Costs (Savings)			0	0	0 0	0	0	0
Spending Plan		535	1,519	0 13,	,130 100	0	0	15,284

#### **Data and Telephone Program**

BCL/Program Name: Technology Infrastructure BCL/Program Code: D3300

Project Type: New Investment Start Date: 1st Quarter 2004

Project ID: COMMINFRA End Date: Ongoing

**Location:** Various

Neighborhood Plan: Not in a Neighborhood Plan Neighborhood Plan Matrix: N/A
Neighborhood District: Not in a Neighborhood District Urban Village: Not in an Urban Village

The Data and Telephone Program maintains the City's data and telephone switching systems through software and major hardware maintenance, upgrades, and replacements. These projects are often unavoidable due to changing technology and/or mandated manufacturer requirements, and either reduce future costs or provide useful features which improve enduser productivity. The program is similar to equipment programs found in other departments with capital improvement projects, as there is an inventory of capital assets that require major maintenance, upgrades, and replacements to avoid unscheduled service disruption and system failures. Specific projects are chosen as the year progresses. Although project funds are expended from the Information Technology Operating Fund, the funding is generated by telephone and data user fees. There are no additional operations and maintenance costs associated with this project.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources Internal Service Fees and Allocations, Outside Funding Partners	1,381	1,192	1,500	1,500	1,500	1,500	1,500	1,500	11,573
Project Total:	1,381	1,192	1,500	1,500	1,500	1,500	1,500	1,500	11,573
Fund Appropriations/Allocations Information Technology Operating Fund	1,381	1,192	1,500	1,500	1,500	1,500	1,500	1,500	11,573
Appropriations Total*	1,381	1,192	1,500	1,500	1,500	1,500	1,500	1,500	11,573
O & M Costs (Savings)			0	0	0	0	0	0	0

#### **Equipment and Infrastructure Protection**

BCL/Program Name: Technology Infrastructure BCL/Program Code: D3300

Project Type:New InvestmentStart Date:3rd Quarter 2005Project ID:UASI05End Date:1st Quarter 2007

**Location:** Various

Neighborhood Plan:Not in a Neighborhood PlanNeighborhood Plan Matrix:N/ANeighborhood District:Not in a Neighborhood DistrictUrban Village:Not in an Urban Village

This project provides for equipment and infrastructure protection. This project is funded by federal Urban Area Security Initiative (UASI) grant funds.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
Miscellaneous Grants or Donations	0	467	0	0	0	0	0	0	467
Project Total:	0	467	0	0	0	0	0	0	467
Fund Appropriations/Allocations Information Technology Operating Fund	0	467	0	0	0	0	0	0	467
Appropriations Total*	0	467	0	0	0	0	0	0	467
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan		138	234	95	0	0	0	0	467

#### Fiber Optic Communication Installation and Maintenance

BCL/Program Name: Technology Infrastructure BCL/Program Code: D3300

Project Type: New Investment Start Date: 1st Quarter 2005

Project ID: FIBER End Date: Ongoing

**Location:** Various

Neighborhood Plan: Not in a Neighborhood Plan Neighborhood Plan Matrix: N/A

Neighborhood District: Not in a Neighborhood District Urban Village: Not in an Urban Village

This project provides for the installation and maintenance of the fiber network on behalf of fiber partners (the federal government's General Services Administration, National Oceanic Atmospheric Association, Washington State Department of Information Services, Washington State Department of Transportation, King County, University of Washington, Seattle School District, South/Central/North Seattle Community College Districts, and other City departments). The fiber network provides a high-speed communication network for these agencies and departments. The expansion of the fiber network includes sites such as libraries, public schools, fire stations, police stations, water treatment facilities, sewage treatment facilities, community centers, and other City facilities. There are 22 main fiber projects and over 60 subprojects. Although the project funds are expended from the Information Technology Fund, the funding is generated from payments by fiber partners and departmental user fees. The operating and maintenance costs are funded through the Information Technology Operating Fund from access fees collected from fiber partners.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources Internal Service Fees and Allocations, Outside Funding Partners	1,613	2,500	2,500	1,000	1,000	1,000	1,000	1,000	11,613
Project Total:	1,613	2,500	2,500	1,000	1,000	1,000	1,000	1,000	11,613
Fund Appropriations/Allocations Information Technology Operating Fund	1,613	2,500	2,500	1,000	1,000	1,000	1,000	1,000	11,613
Appropriations Total*	1,613	2,500	2,500	1,000	1,000	1,000	1,000	1,000	11,613
O & M Costs (Savings)			N/C	N/C	N/C	N/C	N/C	N/C	0

#### Information Technology Disaster Recovery Test of Mission Critical Applications

BCL/Program Name: Technology Infrastructure BCL/Program Code: D3300

Project Type:New InvestmentStart Date:2nd Quarter 2005Project ID:REGION6End Date:4th Quarter 2005

Location: Various

Neighborhood Plan: Not in a Neighborhood Plan Neighborhood Plan Matrix: N/A

Neighborhood District: Not in a Neighborhood District Urban Village: Not in an Urban Village

This project enables the City of Seattle and King County to test processes and procedures that will be used to restore hardware, mission critical applications, and infrastructure in the event of a disaster. The U.S. Department of Homeland Security's Office of Domestic Preparedness is funding this project.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources Miscellaneous Grants or Donations	0	657	0	0	0	0	0	0	657
Project Total:	0	657	0	0	0	0	0	0	657
Fund Appropriations/Allocations Information Technology Operating Fund	0	657	0	0	0	0	0	0	657
Appropriations Total*	0	657	0	0	0	0	0	0	657
O & M Costs (Savings)			0	0	0	0	0	0	0

#### **Seattle Justice Information Systems**

BCL/Program Name: Technology Infrastructure BCL/Program Code: D3300

Project Type:New InvestmentStart Date:1st Quarter 2002Project ID:SEAJISEnd Date:4th Quarter 2005

**Location:** Various

Neighborhood Plan:Not in a Neighborhood PlanNeighborhood Plan Matrix:N/ANeighborhood District:Not in a Neighborhood DistrictUrban Village:Not in an Urban Village

The Seattle Justice Information System (SeaJIS) program streamlines the flow of criminal justice information between the individuals working in the law, safety, and justice arenas, providing them with complete and timely information. SeaJIS provides real-time data exchanges that eliminate redundant data entry and errors; and reduces report and technical interface development, maintenance, and redundant databases so Seattle public safety organizations may more easily participate in and benefit from integration programs of other municipalities, counties, state and federal agencies. SeaJIS implementation connects the Municipal Court system and the City of Seattle Law Department's system so they may exchange real-time out-of-custody case initiation, court order, and court case information. SeaJIS will connect to the King County broker to share booking information between the jail, Seattle Police Department (following records management system implementation), Municipal Court, and Law Department. The Electronic Booking Integration portion of the project was implemented in 2004.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
General Subfund Revenues	972	200	0	0	0	0	0	0	1,172
Project Total:	972	200	0	0	0	0	0	0	1,172
Fund Appropriations/Allocations Information Technology Operating Fund	972	200	0	0	0	0	0	0	1,172
Appropriations Total*	972	200	0	0	0	0	0	0	1,172
O & M Costs (Savings)			N/C	N/C	N/C	N/C	N/C	N/C	0

#### **Seattle Police Department Computer Aided Dispatch**

BCL/Program Name: Technology Infrastructure BCL/Program Code: D3300

Project Type:New InvestmentStart Date:2nd Quarter 2001Project ID:SPDCADEnd Date:2nd Quarter 2007

Location: Various

Neighborhood Plan:Not in a Neighborhood PlanNeighborhood Plan Matrix:N/ANeighborhood District:Not in a Neighborhood DistrictUrban Village:Not in an Urban Village

The Seattle Police Department Computer Aided Dispatch (CAD) project replaces the dispatch system currently in use by the Department. This project is one of four projects to upgrade the Seattle Fire Department and Police CAD and Record Management Systems (RMS). The other project included in this CIP is the Seattle Police Department Record Management System project (SPDRMS). Two Fire Department projects were completed in 2004, and are not in this CIP.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
General Obligation Bonds	63	2,965	0	0	0	0	0	0	3,028
Internal Service Fees and Allocations, Outside Funding Partners	200	0	0	0	0	0	0	0	200
Project Total:	263	2,965	0	0	0	0	0	0	3,228
Fund Appropriations/Allocations									
2002B LTGO Capital Project Fund	63	2,965	0	0	0	0	0	0	3,028
Information Technology Operating Fund	200	0	0	0	0	0	0	0	200
Appropriations Total*	263	2,965	0	0	0	0	0	0	3,228
O & M Costs (Savings)			N/C	N/C	N/C	N/C	N/C	N/C	0
Spending Plan		150	1,200	1,615	0	0	0	0	2,965

#### Seattle Police Department Message Switch

BCL/Program Name: Technology Infrastructure BCL/Program Code: D3300

Project Type:New InvestmentStart Date:1st Quarter 2005Project ID:SPDMESSEnd Date:4th Quarter 2007

**Location:** 

Neighborhood Plan:Not in a Neighborhood PlanNeighborhood Plan Matrix:N/ANeighborhood District:Not in a Neighborhood DistrictUrban Village:Not in an Urban Village

The Seattle Police Department Message Switch project plans for and procures hardware, software, interfaces, and professional services necessary to support the Seattle Police Department's (SPD) message switching requirements that include up to 22 interfaces. This project is part of the overall Seattle Police Information Dispatch and Electronic Reporting (SPIDER) project. The message switch project must be in place to support the Computer Aided Dispatch (CAD) and Records Management System (RMS) mobile projects that are occurring in parallel. This project establishes a common and standard platform to support current and future data sharing among appropriate applications within SPD, within the City of Seattle's Public Safety related departments, and with King County, state, and other appropriate public safety agencies.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources Miscellaneous Grants or Donations	0	1,875	0	0	0	0	0	0	1,875
Project Total:	0	1,875	0	0	0	0	0	0	1,875
Fund Appropriations/Allocations Information Technology Operating Fund	0	1,875	0	0	0	0	0	0	1,875
Appropriations Total*	0	1,875	0	0	0	0	0	0	1,875
O & M Costs (Savings)		0	0 1.525	0 350	0	0	0	0 0	0 1.875
Spending Plan		U	1,523	330	U	U	U	U	1,0/3

#### Seattle Police Department Record Management System

BCL/Program Name: Technology Infrastructure BCL/Program Code: D3300

Project Type:New InvestmentStart Date:1st Quarter 2001Project ID:SPDRMSEnd Date:4th Quarter 2007

**Location:** Various

Neighborhood Plan:Not in a Neighborhood PlanNeighborhood Plan Matrix:N/ANeighborhood District:Not in a Neighborhood DistrictUrban Village:Not in an Urban Village

The Seattle Police Department Record Management System project replaces the record management system currently in use by the Department. This project is one of four projects to upgrade the Police and Fire Computer Aided Dispatch and Record Management Systems. The other project in this CIP is the Seattle Police Department Record Management System project (SPDCAD). Two Fire Department projects, the Seattle Fire Department Record Management System (SFDRMS) and Seattle Fire Department Computer Aided Dispatch (SFDCAD) were completed in 2004, and are not in this CIP. The project is in vendor selection phase and is projected to be completed in 2007.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources									
General Obligation Bonds	116	1,701	0	0	0	0	0	0	1,817
Internal Service Fees and Allocations, Outside Funding Partners	1,503	1,899	0	0	0	0	0	0	3,402
Project Total:	1,619	3,600	0	0	0	0	0	0	5,219
Fund Appropriations/Allocations									
2002B LTGO Capital Project Fund	116	1,701	0	0	0	0	0	0	1,817
Information Technology Operating Fund	1,503	1,899	0	0	0	0	0	0	3,402
Appropriations Total*	1,619	3,600	0	0	0	0	0	0	5,219
O & M Costs (Savings)			N/C	N/C	N/C	N/C	N/C	N/C	0
Spending Plan		154	1,500	1,946	0	0	0	0	3,600

#### **Seattle Urban Area Communications Interoperability**

BCL/Program Name: Technology Infrastructure BCL/Program Code: D3300

Project Type:New InvestmentStart Date:1st Quarter 2004Project ID:UACOMM04End Date:4th Quarter 2005

**Location:** Various

Neighborhood Plan:Not in a Neighborhood PlanNeighborhood Plan Matrix:N/ANeighborhood District:Not in a Neighborhood DistrictUrban Village:Not in an Urban Village

This project provides for secure communications interoperability for emergency operations centers, elected officials, and senior executives in the Seattle urban area. Secure communications interoperability means emergency operations centers and high-level officials will have a standard and secure way of sharing sensitive information using video conferencing, two-way radio, telephone, data communications, satellite telephone, and secure telephone technology during times of emergency. This project is funded by federal Urban Area Security Initiative (UASI) grant funds.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources Miscellaneous Grants or Donations	527	1,473	0	0	0	0	0	0	2,000
Project Total:	527	1,473	0	0	0	0	0	0	2,000
Fund Appropriations/Allocations Information Technology Operating Fund	527	1,473	0	0	0	0	0	0	2,000
Appropriations Total*	527	1,473	0	0	0	0	0	0	2,000
O & M Costs (Savings)			0	0	0	0	0	0	0

#### **Technology Infrastructure Security Enhancements**

BCL/Program Name: Technology Infrastructure BCL/Program Code: D3300

Project Type:New InvestmentStart Date:2nd Quarter 2004Project ID:UASI04End Date:4th Quarter 2005

Location: Various

Neighborhood Plan:Not in a Neighborhood PlanNeighborhood Plan Matrix:N/ANeighborhood District:Not in a Neighborhood DistrictUrban Village:Not in an Urban Village

This project provides for planning, repair, construction and modification of various improvements to the City's data and communications infrastructure. This project is funded by federal Urban Area Security Initiative (UASI) grant funds.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources Miscellaneous Grants or Donations	223	1,832	0	0	0	0	0	0	2,055
Project Total:	223	1,832	0	0	0	0	0	0	2,055
Fund Appropriations/Allocations Information Technology Operating Fund	223	1,832	0	0	0	0	0	0	2,055
Appropriations Total*	223	1,832	0	0	0	0	0	0	2,055
O & M Costs (Savings)			0	0	0	0	0	0	0

#### Urban Area Security Initiative for Wideband Wireless Pilot and Fiber

BCL/Program Name: Technology Infrastructure BCL/Program Code: D3300

Project Type:New InvestmentStart Date:3rd Quarter 2004Project ID:UASI404End Date:4th Quarter 2005

Location: Various

Neighborhood Plan:Not in a Neighborhood PlanNeighborhood Plan Matrix:N/ANeighborhood District:Not in a Neighborhood DistrictUrban Village:Not in an Urban Village

This project provides for implementation of a Wideband Wireless pilot project and provides for the installation of fiber to various government agencies. The Wideband Wireless pilot project will enable wireless connectivity to the internet in pilot project areas. The installation of fiber to various government agencies will enable internet and network access to government buildings covered in the Urban Area Security Initiative grant area. This project is funded by federal Urban Area Security Initiative (UASI) grant funds.

	LTD	2005	2006	2007	2008	2009	2010	2011	Total
Revenue Sources Miscellaneous Grants or Donations	0	760	0	0	0	0	0	0	760
Project Total:	0	760	0	0	0	0	0	0	760
Fund Appropriations/Allocations Information Technology Operating Fund	0	760	0	0	0	0	0	0	760
Appropriations Total*	0	760	0	0	0	0	0	0	760
O & M Costs (Savings)			0	0	0	0	0	0	0