

# **INFORMATION TECHNOLOGY**



## Overview of Facilities and Programs

The Department of Information Technology (DoIT) builds, manages and maintains City government information technology infrastructure comprised of radio, telephone, and computer networks. This technology infrastructure is used by all City departments to serve constituents. DoIT also manages the City's central data center, which houses the majority of computer servers used by City departments. Additionally, DoIT directs the development of certain computer application 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 funding major technology improvements to the City's existing networks and systems, including telephone switch upgrades, public safety radio network upgrades, and new computer applications such as the computer aided dispatch systems for the Seattle Police Department and Seattle Fire Department.

DoIT's CIP is largely funded by limited tax general obligation (LTGO) bonds issued for specific purposes such as upgrades to Police and Fire computer applications, and funds collected via rates and allocations from other City departments, (e.g. the telephone service rate paid monthly by departments for each telephone line). These rates and allocations are deposited into the Information Technology Fund. These two major fund sources are supplemented by a variety of other fund sources, which are listed in the Fund Source Summary section.

## Highlights

The 2004 – 2009 DoIT CIP includes the following projects:

- Addition of a backup electrical power generator to the DoIT-operated data center, so the data center can continue operation even if building power fails during an emergency or disaster.
- Expansion of a standard data communications network in the new civic center buildings (Key Tower, new City Hall, new Justice Center). This standard network is known as “uniform data service.”
- 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.
- Upgrade of electronics and radios in the 800 MHz public safety radio network in accordance with the manufacturer's replacement and improvement schedule.
- Upgrade of telephone switches and other electronics in the City's telephone network to improve service and introduce new features that will be useful to City employees and constituents, specifically 24 hour access to City services.
- Development and implementation of a replacement electronic records management system (RMS), and development and implementation of a replacement computer-aided dispatch (CAD) computer system, for Police and Fire.

## Project Selection Process

DoIT selects infrastructure projects based upon the following criteria:

- The requirement for City government – especially the public safety agencies – to operate both day-to-day and during times of emergency and disaster. Citizens must be able to reliably contact City government for service, whether by telephoning 911 or contacting City departments for information. City departments

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must be able to communicate internally and with employees in the field in order to coordinate responses to citizen requests.

- Changes and improvements to technology developed by industry and technology manufacturers. This includes equipment and software from manufacturers such as Microsoft, IBM, Motorola, Cisco, Nortel, and Gateway.
- The desire to further extend City government services to citizens “anytime, anywhere.” “Anytime” refers to making more services available 24 hours a day, seven days a week, in a cost effective manner. “Anywhere” refers to making more services available in neighborhoods, in homes (via telephone or computer), or while mobile.

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

The DoIT CIP generally does not refer to new funds for operations and maintenance (O&M) costs. However, a significant portion of the Department’s operating budget is devoted to operating and maintaining CIP projects. In 2000-2001, for example, DoIT constructed a new consolidated server room to house computer servers used by most City departments. The 2004 Proposed DoIT operating budget contains \$647,000 to operate this new server room – for staffing, electricity, air conditioning, and equipment maintenance costs. Additionally, some CIP projects generate O&M savings. For example, the Uniform Data Services project provides for a standard, central connection for computers in the City’s new Civic Center campus, rather than a more costly, decentralized network.

### **City Council Changes to the CIP**

City Council made no changes to the Department of Information Technology CIP.

## Project Summary

<b>Program/Project</b>	<b>Project ID</b>	<b>LTD</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>Total</b>
<b>Technology Engineering and Project Management</b>										
800 MHz Radio Program	D9KC00	0	1,350	750	0	0	0	13,130	0	<b>15,230</b>
Data, Telephone, & Video Program	COMMINFR A	0	840	1,381	2,400	1,500	1,500	1,500	1,500	<b>10,621</b>
Fiber Optic Communication Installation and Maintenance	FIBER	2,135	2,188	1,800	1,500	1,000	1,000	1,000	1,000	<b>11,623</b>
Key Tower Backup Generator	D3KTG1	0	1,000	0	0	0	0	0	0	<b>1,000</b>
Law, Safety, Justice Document Image and Management	Image	0	234	0	1,266	0	0	0	0	<b>1,500</b>
Mobile Data Communications	MDC	6,000	0	0	0	0	0	0	0	<b>6,000</b>
Seattle Fire Department Computer Aided Dispatch System	SFDCAD	731	1,803	0	0	0	0	0	0	<b>2,534</b>
Seattle Fire Department Record Management System	SFDRMS	262	1,660	0	0	0	0	0	0	<b>1,922</b>
Seattle Justice Information Systems	SEAJIS	167	953	0	0	0	0	0	0	<b>1,120</b>
Seattle Police Department Computer Aided Dispatch	SPDCAD	95	3,133	0	0	0	0	0	0	<b>3,228</b>
Seattle Police Department Record Management System	SPDRMS	158	5,092	0	0	0	0	0	0	<b>5,250</b>
Uniform Data Services	D3KTUD	919	219	168	116	0	0	0	0	<b>1,422</b>
<b>Technology Engineering and Project Management Total</b>		<b>10,467</b>	<b>18,472</b>	<b>4,099</b>	<b>5,282</b>	<b>2,500</b>	<b>2,500</b>	<b>15,630</b>	<b>2,500</b>	<b>61,450</b>
<b>Department Total</b>		<b>10,467</b>	<b>18,472</b>	<b>4,099</b>	<b>5,282</b>	<b>2,500</b>	<b>2,500</b>	<b>15,630</b>	<b>2,500</b>	<b>61,450</b>

*\*Amounts in thousands of dollars*

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## Fund Source Summary

<b>Funding Source</b>	<b>LTD</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>Total</b>
2002 LTGO Project Fund	0	116	0	0	0	0	0	0	<b>116</b>
2003 LTGO Project Fund	0	1,701	0	0	0	0	0	0	<b>1,701</b>
800 MHz Levy	0	120	0	0	0	0	0	0	<b>120</b>
Basic Life Support Levy	0	250	0	0	0	0	0	0	<b>250</b>
General Subfund	257	1,510	0	0	0	0	0	0	<b>1,767</b>
Information Technology Fund	3,979	6,919	4,099	4,016	2,500	2,500	15,630	2,500	<b>42,143</b>
Limited Tax General Obligation Bonds	6,231	7,856	0	0	0	0	0	0	<b>14,087</b>
To Be Determined	0	0	0	1,266	0	0	0	0	<b>1,266</b>
<b>Department Total</b>	<b>10,467</b>	<b>18,472</b>	<b>4,099</b>	<b>5,282</b>	<b>2,500</b>	<b>2,500</b>	<b>15,630</b>	<b>2,500</b>	<b>61,450</b>

*\*Amounts in thousands of dollars*

## 800 MHz Radio Program

**Program:** Technology Engineering and Project Management      **Start Date:** 1st Quarter 2002  
**Type:** New Investment      **End Date:** Ongoing  
**Project ID:** D9KC00

The 800 MHz Radio Program upgrades 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. The program of system upgrades ensures continued manufacturer support and overall communication functionality. Although the project funds are expended from the Information Technology Fund, these funds come from a combination of 800 MHz levy proceeds and user fees. Costs shown in 2008 reflect an anticipated major upgrade of the technology by the manufacturer. There are no anticipated operations and maintenance costs associated with this project.

	LTD	2003	2004	2005	2006	2007	2008	2009	Total
Information Technology Fund	0	1,350	750	0	0	0	13,130	0	15,230
<b>TOTAL FUNDS</b>	<b>0</b>	<b>1,350</b>	<b>750</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>13,130</b>	<b>0</b>	<b>15,230</b>
<i>O&amp;M Costs (Savings)</i>			0	0	0	0	0	0	

## Data, Telephone, & Video Program

**Program:** Technology Engineering and Project Management      **Start Date:** 1st Quarter 2003  
**Type:** New Investment      **End Date:** Ongoing  
**Project ID:** COMMINFRA

The Data, Telephone, & Video Program maintains the City's data and telephone switching systems through software and 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 end-user productivity. The program is similar to an HVAC or traffic signal equipment program found in traditional CIP departments, as there is an inventory of capital assets that require 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 Fund, the funds come from user fees. The department is performing a major overhaul to the City's data network systems in 2005 due to a manufacturer technology change. There are no anticipated operations and maintenance costs associated with this project.

	LTD	2003	2004	2005	2006	2007	2008	2009	Total
Information Technology Fund	0	840	1,381	2,400	1,500	1,500	1,500	1,500	10,621
<b>TOTAL FUNDS</b>	<b>0</b>	<b>840</b>	<b>1,381</b>	<b>2,400</b>	<b>1,500</b>	<b>1,500</b>	<b>1,500</b>	<b>1,500</b>	<b>10,621</b>
<i>O&amp;M Costs (Savings)</i>			0	0	0	0	0	0	

*\*Amounts in thousands of dollars*

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## Fiber Optic Communication Installation and Maintenance

**Program:** Technology Engineering and Project Management      **Start Date:** Ongoing  
**Type:** New Investment      **End Date:** Ongoing  
**Project ID:** FIBER

This project provides for the installation and maintenance of the fiber network on behalf of fiber partners (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 funds come from payments by fiber partners and departmental user fees. The operating and maintenance costs are funded through the departmental operating fund from access fees collected from fiber partners.

	LTD	2003	2004	2005	2006	2007	2008	2009	Total
Information Technology Fund	2,135	2,188	1,800	1,500	1,000	1,000	1,000	1,000	11,623
<b>TOTAL FUNDS</b>	<b>2,135</b>	<b>2,188</b>	<b>1,800</b>	<b>1,500</b>	<b>1,000</b>	<b>1,000</b>	<b>1,000</b>	<b>1,000</b>	<b>11,623</b>
<i>O&amp;M Costs (Savings)</i>			500	500	500	500	500	500	

## Key Tower Backup Generator

**Program:** Technology Engineering and Project Management      **Start Date:** 2nd Quarter 2002  
**Type:** New Facility      **End Date:** 4th Quarter 2003  
**Project ID:** D3KTG1  
**Location:** 700 5TH AVE

The Key Tower Backup Generator Project consists of the design and installation of a 750 kilowatt diesel generator in the City of Seattle's Key Tower building. The generator supplies power required to maintain operation of critical City computer and communication systems utilized by several City departments in the event of an emergency. The generator utilizes the existing building electrical system to deliver backup power. Although fully appropriated in 2002, the project is completed in 2003. Operating costs are to be paid from the Information Technology Fund from cost allocations to customer departments.

	LTD	2003	2004	2005	2006	2007	2008	2009	Total
Limited Tax General Obligation Bonds	0	1,000	0	0	0	0	0	0	1,000
<b>TOTAL FUNDS</b>	<b>0</b>	<b>1,000</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1,000</b>
<i>O&amp;M Costs (Savings)</i>			3	3	3	5	5	5	

\*Amounts in thousands of dollars





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## Seattle Fire Department Computer Aided Dispatch System

**Program:** Technology Engineering and Project Management      **Start Date:** 1st Quarter 2001  
**Type:** New Investment      **End Date:** 4th Quarter 2003  
**Project ID:** SFDCAD

The Seattle Fire Department Computer Aided Dispatch (CAD) Project replaces the dispatch system currently in use by the Seattle Fire Department. This project is one of four projects to upgrade the Fire and Police Computer Aided Dispatch and Record Management Systems, and was previously listed as part of the Law, Safety, Justice Information Technology Project (Project LSJIT) in the Fleets & Facilities CIP. CAD project design began in 2001, and a consultant to implement the system was selected in December 2002. The project has an expected completion date of November 2003.

	LTD	2003	2004	2005	2006	2007	2008	2009	Total
Information Technology Fund	0	264	0	0	0	0	0	0	264
Basic Life Support Levy	0	125	0	0	0	0	0	0	125
Limited Tax General Obligation Bonds	731	1,354	0	0	0	0	0	0	2,085
800 MHz Levy	0	60	0	0	0	0	0	0	60
<b>TOTAL FUNDS</b>	<b>731</b>	<b>1,803</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2,534</b>
<i>O&amp;M Costs (Savings)</i>			250	250	250	250	250	250	

## Seattle Fire Department Record Management System

**Program:** Technology Engineering and Project Management      **Start Date:** 1st Quarter 2001  
**Type:** New Investment      **End Date:** 2nd Quarter 2004  
**Project ID:** SFDRMS

The Seattle Fire Department Record Management System (RMS) project replaces the record management system currently in use by the Department. This project is one of four projects to upgrade the Fire and Police Computer Aided Dispatch and Record Management Systems, and was previously listed as part of the Law, Safety, Justice Information Technology Project (Project LSFIT) in the Fleets & Facilities CIP. The design of the RMS project started in 2001 with an expected completion date of June 2004.

	LTD	2003	2004	2005	2006	2007	2008	2009	Total
Information Technology Fund	100	0	0	0	0	0	0	0	100
General Subfund	162	77	0	0	0	0	0	0	239
Limited Tax General Obligation Bonds	0	1,458	0	0	0	0	0	0	1,458
Basic Life Support Levy	0	125	0	0	0	0	0	0	125
<b>TOTAL FUNDS</b>	<b>262</b>	<b>1,660</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1,922</b>
<i>O&amp;M Costs (Savings)</i>			N/C	N/C	N/C	N/C	N/C	N/C	
<b>Cash Flow</b>		795	865	0	0	0	0	0	

\*Amounts in thousands of dollars

## Seattle Justice Information Systems

**Program:** Technology Engineering and Project Management      **Start Date:** 1st Quarter 2001  
**Type:** New Investment      **End Date:** 4th Quarter 2004  
**Project ID:** SEAJIS

The Seattle Justice Information System project implements the sharing of data between all four public safety agencies. This project was previously listed as part of the Law, Safety, Justice Information Technology Project (Project LSJIT) in the Fleets & Facilities CIP. With implementation of this project, these agencies are able to efficiently utilize and share available information through the use of computer data files, eliminating the need to keep multiple copies for each agency. Updates, corrections, and additions to the files are available immediately to each agency, providing them with the most up-to-date and accurate information. This system provides protection of privacy and confidentiality, while streamlining workflows. The first phase of the project includes implementing the infrastructure, or "platform," for which an initial three modules are then used to transmit data between departments.

	LTD	2003	2004	2005	2006	2007	2008	2009	Total
Limited Tax General Obligation Bonds	0	400	0	0	0	0	0	0	400
Information Technology Fund	167	553	0	0	0	0	0	0	720
<b>TOTAL FUNDS</b>	<b>167</b>	<b>953</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1,120</b>
<i>O&amp;M Costs (Savings)</i>			N/C	N/C	N/C	N/C	N/C	N/C	

## Seattle Police Department Computer Aided Dispatch

**Program:** Technology Engineering and Project Management      **Start Date:** 2nd Quarter 2001  
**Type:** New Investment      **End Date:** 4th Quarter 2004  
**Project ID:** SPDCAD

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 Fire and Police CAD and Record Management Systems (RMS), and was previously listed as part of the Law, Safety, Justice Information Technology Project (Project LSJIT) in the Fleets & Facilities CIP. Advertisement and selection of the consultant to implement the Police CAD System is expected to occur in December 2004.

	LTD	2003	2004	2005	2006	2007	2008	2009	Total
Information Technology Fund	0	98	0	0	0	0	0	0	98
Limited Tax General Obligation Bonds	0	2,921	0	0	0	0	0	0	2,921
General Subfund	95	54	0	0	0	0	0	0	149
800 MHz Levy	0	60	0	0	0	0	0	0	60
<b>TOTAL FUNDS</b>	<b>95</b>	<b>3,133</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>3,228</b>
<i>O&amp;M Costs (Savings)</i>			N/C	N/C	N/C	N/C	N/C	N/C	
<b>Cash Flow</b>		1,588	1,545	0	0	0	0	0	

*\*Amounts in thousands of dollars*

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## Seattle Police Department Record Management System

**Program:** Technology Engineering and Project Management      **Start Date:** 1st Quarter 2001  
**Type:** New Investment      **End Date:** 2nd Quarter 2005  
**Project ID:** SPDRMS

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, and was previously listed as part of the Law, Safety, Justice Information Technology Project (Project LSJIT) in the Fleets & Facilities CIP. Advertisement and selection of the consultant to implement the Record Management System occurred in June 2003. Project implementation is to be completed in December 2004, with conversion of existing data to the new system to be completed in April 2005.

	LTD	2003	2004	2005	2006	2007	2008	2009	Total
General Subfund	0	1,379	0	0	0	0	0	0	1,379
Information Technology Fund	158	1,342	0	0	0	0	0	0	1,500
Limited Tax General Obligation Bonds	0	554	0	0	0	0	0	0	554
2002 LTGO Project Fund	0	116	0	0	0	0	0	0	116
2003 LTGO Project Fund	0	1,701	0	0	0	0	0	0	1,701
<b>TOTAL FUNDS</b>	<b>158</b>	<b>5,092</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>5,250</b>
<i>O&amp;M Costs (Savings)</i>			N/C	N/C	N/C	N/C	N/C	N/C	
<b>Cash Flow</b>		1,514	2,595	983	0	0	0	0	

## Uniform Data Services

**Program:** Technology Engineering and Project Management      **Start Date:** 1st Quarter 2001  
**Type:** New Investment      **End Date:** 4th Quarter 2005  
**Project ID:** D3KTUD

The Uniform Data Services Project creates a uniform computer data network within the Key Tower, Justice Center and City Hall. This service supports 4,000 employees upon full implementation. The system eliminates problems associated with utilizing different equipment and software employed by different departments for computer communications. The system handles a greater number of users transmitting a greater amount of electronic information in the everyday operations of the City. Although project funds are expended from the Department's operating fund, the funds come from customer department user fees. Net operations and maintenance costs associated with this project have not been calculated as the City continues to rely on the existing network during deployment. Overall operating costs are not anticipated to increase as a result of the project.

	LTD	2003	2004	2005	2006	2007	2008	2009	Total
Information Technology Fund	919	219	168	116	0	0	0	0	1,422
<b>TOTAL FUNDS</b>	<b>919</b>	<b>219</b>	<b>168</b>	<b>116</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1,422</b>
<i>O&amp;M Costs (Savings)</i>			0	0	0	0	0	0	

\*Amounts in thousands of dollars