

State of Alaska FY2007 Governor's Operating Budget

Department of Natural Resources Interdepartmental Information Technology Chargeback Component Budget Summary

Component: Interdepartmental Information Technology Chargeback

Contribution to Department's Mission

Provide DNR staff secure and reliable access to state telecommunications, data resources, and network computing services at the lowest total cost; and support public access to public data.

Core Services

This component secures DNR access to the State Wide Area Network with Internet services, local area network services, voice and data communications (phones, email, shared calendar, employee directory, video-conferencing, and networks); mainframe business applications, Oracle databases, Enterprise ETS-servers, DNR servers with production software, state security infrastructure; radio communications & dedicated circuits for fire and parks management; help desk services; asset management services for hardware and software; IT standards & procurement control; and a technical support staff of specialists and technicians for helpdesk, network, and systems administration.

These Core Information Technology Services enable DNR to:

- Process DNR's land, resource, and revenue tracking activities.
- Access the statewide communications network for data and voice transmissions.
- Access the state enterprise email, employee directory, and calendar communication system.
- Access and update the DNR web pages; averaging over 4 million hits per month
- Access the state mainframe for data storage, computation, backup, and retrieval services.
- Access the state's accounting, budget, payroll, and personnel systems.
- Access local and long distance telephone service.
- Access Internet and Intranet web sites to support DNR job requirements.
- Access shared file & print system at low cost
- Conduct electronic commerce with customers.
- Access to statewide video-conferencing facilities
- Support field radio and paging services for fire management and state parks administration
- Support >1000 network devices for including desktop PC's, printers, plotters, switches, routers
- Securely transfer confidential business information.
- Support emergency communication requirements from Forestry and Parks.
- Access other State computer systems, eg. DOT vehicle inventory system, Public Safety ASPIN system for Park Rangers, and P-card systems.
- Maintain productive desktop software and hardware per state and DNR standards.
- Maintain state standards for DNR Web Sites
- Contribute to state standard building process via various Functional Work Groups.

This project funds DNR staff and the general public direct use or access to the following DNR data processing systems:

Land Administration System (LAS) - The Land Administration System is used to manage nearly 250,000 resource cases covering more than 106,000,000 acres of uplands and ~65,000,000 acres of tide and submerged lands.
<http://dnr.state.ak.us/las>

Recorder's Office System for document indexing and imaging; process over 600,000 pages in 270,000+ documents per year. <http://dnr.state.ak.us/recorder>

Revenue and Billing System - This system automates the receipting, accounting, and billing of resource revenues collected by DNR. Support mainframe and web components.

DNR Home Page is the web portal to DNR business activity. Public usage continues to grow at a brisk pace. See <http://dnr.state.ak.us> Average annual increases of 30% growth.

Status Plat System – is the public record of state land ownership and disposition of state lands. Both web server and database server are used to distribute plats and their updates to DNR staff and the public. About 10,000 plat updates were processed last year.

Geographic Information System - provides maps, data, and analysis of issues that are used to support DNR decision-making. GIS products of land ownership and mineral resources are also popular with the public. The system uses PC's, servers, and web servers. An example GIS system supports public access to both state and federal mining claims: <http://akmining.info>

FY2007 Resources Allocated to Achieve Results	
FY2007 Component Budget: \$1,367,900	Personnel:
	Full time 6
	Part time 0
	Total 6

Key Component Challenges

- Issue 1: Implementing State IT Standards: The Microsoft Network Operating System The MS/NOS state standard is a significant change from what DNR currently uses. File sharing currently uses open systems (Solaris/Samba) for these services at an average cost of \$14.00 per user per month. The MS NOS would not replace Solaris due to development requirements using Java and Oracle. The projected cost for FY07 will be \$147 per year per workstation. DNR has ~1,000 inventoried workstations. DNR projects it will need four new positions to install and maintain the Microsoft servers and the file and print system - the actual staffing model will be negotiated with DOA after receiving feedback implementation recommendations from Microsoft.
- Radio Communications: Two-way radios are extensively used by Forestry, Parks and others to help manage wildland fires, support public safety, provide law enforcement, support natural resource management and emergency response. A key issue relates to the migration plans from the existing analog radio systems to an integrated digital system as envisioned by the Alaska Land Mobile Radio initiative. A capital budget request is proposed to execute the radio migration for Forestry and State Parks.
- Interagency receipts increment of \$73.8 is budgeted to cover increased operating costs for technical support. DNR staff totals have increased due to the Governor's Executive Orders and other changes. The new staff require support. Overall DNR Micro-computer network technicians and specialists support > 130 network devices/person. This is nearly 50 network devices higher than the industry standard of ~80 devices/person.

Significant Changes in Results to be Delivered in FY2007

In FY06 a microcomputer network technician II position was added to maintain the growing network, system, security, and data access issues in the Fairbanks Airport Way, Wainwright, Fairbanks Recorder's Office, and Forestry Interior Offices at Tok, Glennallen, and Delta. An I/A increment is needed to complete the funding model in FY07.

The State Of Alaska signed a contract with Microsoft to implement a MS/NOS standard for the state. DNR has been an open systems operations and we will work on a transition with the contractor and the Department of Administration.

Major Component Accomplishments in 2005

CORE SERVICES: ASSURING DNR NETWORK SERVICES; HELPDESK, SYSTEM ADMINISTRATION

DNR Storage Capacity Grows Three terabytes (3,000 gigabytes) of raw disk storage space was added to the Network Appliance 880 Filer, raising the current storage capacity to 7 terabytes. This is a file repository for Oracle databases,

Web server files, land ownership documents, land use maps and ownership maps and satellite ortho-images. Outcome: centralized data storage lowers total cost, improves data protection.

Managed DNR server environment with goal of 99.9% availability. Performance measure rated at 98.6%. Increased downtime tied to increased Internet worm and virus activity. Outcome: State security plan moving into place.

Maintaining Desktop Computers in over 35 offices; processed 2,927 Technical Help requests in 2004. Logged over 16,000 requests. Most are hardware and software updates or error reports. Outcome: Employees have little downtime throughout the course of the year, software updates are efficiently coordinated, and the productivity of DNR Staff strengthened.

DNR Web Statistics – DNR averages about 4 million web ‘hits’ per month; tracking software updated. Outcome: DNR reaches more customers with less impact on staff; public has self-service options without staff intervention.

Assure Secure Network: Continued to monitor the automatic patching and upgrades of desktop operating systems software within DNR using a Microsoft SUS server to push out the changes. Significant time invested battling the rising number of Internet attacks, mostly against Microsoft operating systems. Outcome: Automation saves much staff time, increases protection levels.

Continue to update DNR State IT Standards and Other Updates to CIC Home Page. DNR continues to update the department standards. Key decisions are that DNR adopted Oracle as the standard database and Java as the standard programming environment. IT standards, and other updates, are posted to the CIC internal web page. Outcome: Policies and procedures, new and improved ‘help’ features, drive mappings, user Email/LDAP/USD logins and passwords, DNR wide e-mail lists, virus information, Corporate Time documentation, are all available for DNR staff.

Maintain home and shared directories for DNR employees: Support and maintain over 800 employees home and departmental shared directories on key servers.

- Database Contingency Planning: Deploy backup Oracle database server; protect the department, minimize risk of downtime.
- Mass Storage: Deploy additional 3 terabytes of centralized raid protected disk storage), raising the current storage capacity to 7 terabytes, expandable to 8 terabytes total
- Migration to state standard for anti-virus software. The major offices, Anchorage, Fairbanks, Juneau and Palmer have been converted, smaller remote offices tackled in '06.
- Using the helpdesk software, HelpStar, provides network and computer support to 1197 past and present DNR users for over 16,000 requests from rollout.
- Maintain a backup and disaster recovery system for DNR's data files, consisting of an on site backup inventory for immediate restorations and an off site inventory for disaster recovery for over 3 terabytes of data.
- Maintain network services for authentication of users on the network (NIS) and maintain Internet acceptable naming conventions for DNR's servers (DNS).
- Maintain network services for automatic updates of DNR's Anti-virus software to DNR's desktop computers and automatic updates (SUS) the Windows operating systems and applications to DNR's desktop computers.
- Upgrade Computers for Status Graphics Unit using new Core GIS Software.
- With the installation of the new 5 ton AC unit, DNR servers were moved from other rooms in LRIS back to the server room. Along with this reconfiguration, new batteries were installed in the room's UPS, the old batteries being 5 years old.
- CIC and ETS staff replaced the primary Cisco switches in the Atwood building 7th flr.
- Two new CISCO switches were installed in the Juneau Willoughby Building. Outcome: faster network response times for users.
- Division of Forestry offices in McGrath and Ketchikan upgraded to new network connections to alleviate slow response times.
- Microwave T-1 network connection converted to a landline T-1 for DNR's 3700 Airport Way office in Fairbanks. This will provide a much more reliable network connection. Helps with fire protection and dispatch services.

Migrate DNR Computer Training Facility to Mining, Land and Water site on 9th floor of Atwood building via hardware and software upgrades. Outcome: Better computer training room for DNR, expands role of GIS training within the department.

Department of Natural Resources Strengthens Internet Services A Sun Microsystems Oracle Server was installed to provide redundancy in case of hardware or software failure. Outcome: advanced 24x7 service profile for all customers, improved data protection.

Server Room Upgraded A new 5 ton air conditioner was installed in the Atwood Building server room. This new unit will provide adequate cooling to Natural Resources mission-critical servers when consolidating servers back to the server room. This also provides better security, more efficient management and provides access for state employees and the public to Natural Resource information as close to a 24x7 operation as possible.

Mainframe Operating System – Staff completed testing of DNR applications in the test region on the mainframe computer against the new Z/OS operating system. The new operating system moves the main frame computer closer to a role as a super server with Linux potential. Outcome: Smooth transition for mainframe applications, no downtime.

Standardize Web Servers –DNR's web server have been converted from Iplanet to Apache and upgraded to run the newest release of Tomcat. Outcome: Helps create a common development environment for DNR programmers.

Trained DNR IT Staff. Outcome: A well trained staff is able to utilize the best technical practices for solving DNR problems, and helps to retain a stable technical workforce. Training for IT staff included:

- Trained Status Graphics Staff on the new production application for creating and maintaining status plats. Cartography classes for two staff.
- Java classes included instruction in introductory Java for staff new to the technology of this DNR standard, and an advanced Java class for staff with Java experience. Training classes are from Sun Microsystems.
- System Admin Training Two staff received training to strengthen data backup and disaster recovery; one for configuring CISCO routers and switches, and one for Sun Microsystems Solaris Administration.

Statutory and Regulatory Authority

This component operates under AS 44.21.160; AS 09.25.110,115; 6 AAC Chapter 96; and as a support function for the DNR Mission, operates under AS38 and AS41.

Contact Information
<p>Contact: Richard McMahon, Data Processing Manager Phone: (907) 269-8836 Fax: (907) 269-8920 E-mail: Richard_McMahon@dnr.state.ak.us</p>

**Interdepartmental Information Technology Chargeback
Component Financial Summary**

All dollars shown in thousands

	FY2005 Actuals	FY2006 Management Plan	FY2007 Governor
Non-Formula Program:			
Component Expenditures:			
71000 Personal Services	485.2	408.7	577.2
72000 Travel	2.9	2.5	2.5
73000 Services	600.0	846.2	784.7
74000 Commodities	1.9	3.5	3.5
75000 Capital Outlay	47.0	0.0	0.0
77000 Grants, Benefits	0.0	0.0	0.0
78000 Miscellaneous	0.0	0.0	0.0
Expenditure Totals	1,137.0	1,260.9	1,367.9
Funding Sources:			
1004 General Fund Receipts	883.1	1,023.6	1,048.1
1007 Inter-Agency Receipts	238.6	220.9	302.7
1061 Capital Improvement Project Receipts	15.3	16.4	17.1
Funding Totals	1,137.0	1,260.9	1,367.9

Estimated Revenue Collections

Description	Master Revenue Account	FY2005 Actuals	FY2006 Management Plan	FY2007 Governor
Unrestricted Revenues				
None.		0.0	0.0	0.0
Unrestricted Total		0.0	0.0	0.0
Restricted Revenues				
Interagency Receipts	51015	238.6	220.9	302.7
Capital Improvement Project Receipts	51200	15.3	16.4	17.1
Restricted Total		253.9	237.3	319.8
Total Estimated Revenues		253.9	237.3	319.8

**Summary of Component Budget Changes
From FY2006 Management Plan to FY2007 Governor**

All dollars shown in thousands

	<u>General Funds</u>	<u>Federal Funds</u>	<u>Other Funds</u>	<u>Total Funds</u>
FY2006 Management Plan	1,023.6	0.0	237.3	1,260.9
Adjustments which will continue current level of service:				
-FY 07 Wage Increases for Bargaining Units and Non-Covered Employees	7.4	0.0	0.2	7.6
-FY 07 Health Insurance Cost Increases for Bargaining Units and Non-Covered Employees	0.9	0.0	0.0	0.9
-FY 07 Retirement Systems Cost Increase	12.3	0.0	0.4	12.7
Proposed budget increases:				
-Inter-Agency Receipts for Network & Computer Support	0.0	0.0	81.8	81.8
-Risk Management Self-Insurance Funding Increase	3.9	0.0	0.1	4.0
FY2007 Governor	1,048.1	0.0	319.8	1,367.9

**Interdepartmental Information Technology Chargeback
Personal Services Information**

Authorized Positions		Personal Services Costs		
	<u>FY2006</u> <u>Management</u> <u>Plan</u>	<u>FY2007</u> <u>Governor</u>		
Full-time	7	6	Annual Salaries	375,665
Part-time	0	0	COLA	10,126
Nonpermanent	2	2	Premium Pay	0
			Annual Benefits	203,178
			<i>Less 2.00% Vacancy Factor</i>	<i>(11,769)</i>
			Lump Sum Premium Pay	0
Totals	9	8	Total Personal Services	577,200

Position Classification Summary

Job Class Title	Anchorage	Fairbanks	Juneau	Others	Total
College Intern III	1	0	0	0	1
Data Processing Mgr I	1	0	0	0	1
Micro/Network Spec I	2	0	0	0	2
Micro/Network Tech I	1	0	0	0	1
Micro/Network Tech II	2	1	0	0	3
Totals	7	1	0	0	8