

JOINT BUDGET COMMITTEE



STAFF BUDGET BRIEFING FY 2020-21

OFFICE OF THE GOVERNOR

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OFFICE OF THE GOVERNOR

DEPARTMENT OVERVIEW

This Joint Budget Committee staff budget briefing document includes the following offices and agencies within the Office of the Governor:

- The **Office of the Governor (division)** oversees operation of the executive branch of state government including coordination, direction, and planning of agency operations. The Office represents the state, and serves as a liaison with local and federal governments. Includes the core functions of a traditional executive director's office and the Colorado Energy Office.
- The **Office of the Lieutenant Governor** directly oversees the Colorado Commission of Indian Affairs, Commission on Community Service, and other initiatives. The Lieutenant Governor temporarily takes the Governor's place if the Governor is out of Colorado or is unable to perform his/her duties.
- The **Office of State Planning and Budgeting (OSPB)** develops executive branch budget requests, reviews and analyzes departmental expenditures, and prepares quarterly revenue and economic estimates for the state. Additionally, the Office implements the Results First initiative, a cost benefit analysis model initially developed by the Washington State Institute for Public Policy, and now supported by the Pew Charitable Trusts and the MacArthur Foundation, that aims to determine the monetary value of state policies and programs.
- The **Office of Economic Development and International Trade (OEDIT)** assists in strengthening Colorado's prospects for long-term economic growth by providing broad-based support to businesses. The Office's support services include business funding and incentives, promotion of creative industries, international trade assistance, tourism promotion, minority business assistance, key industry promotion (including advanced industries, aerospace, and health and wellness), and film, television, and media industry development.
- The **Governor's Office of Information Technology (OIT)** is responsible for the operation and delivery of all information and communications technology services across state executive branch agencies. The Office is tasked with providing information technology services, as well as promoting Colorado as the ideal location for information technology companies and technology-based workers.

DEPARTMENT BUDGET: RECENT APPROPRIATIONS

FUNDING SOURCE	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21 *
General Fund	\$35,324,665	\$42,508,950	\$53,098,394	\$54,914,051
Cash Funds	47,400,500	47,889,843	51,552,746	49,981,869
Reappropriated Funds	245,351,971	256,873,308	293,603,363	301,247,273
Federal Funds	6,455,720	6,767,275	6,897,440	6,688,884
TOTAL FUNDS	\$334,532,856	\$354,039,376	\$405,151,943	\$412,832,077
Full Time Equiv. Staff	1,091.2	1,102.8	1,157.0	1,184.5

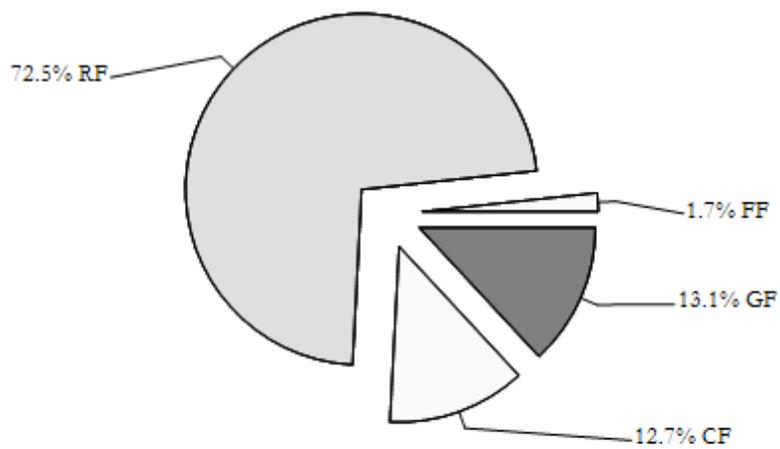
*Requested appropriation.

DEPARTMENT BUDGET: GRAPHIC OVERVIEW

Department's Share of Statewide General Fund

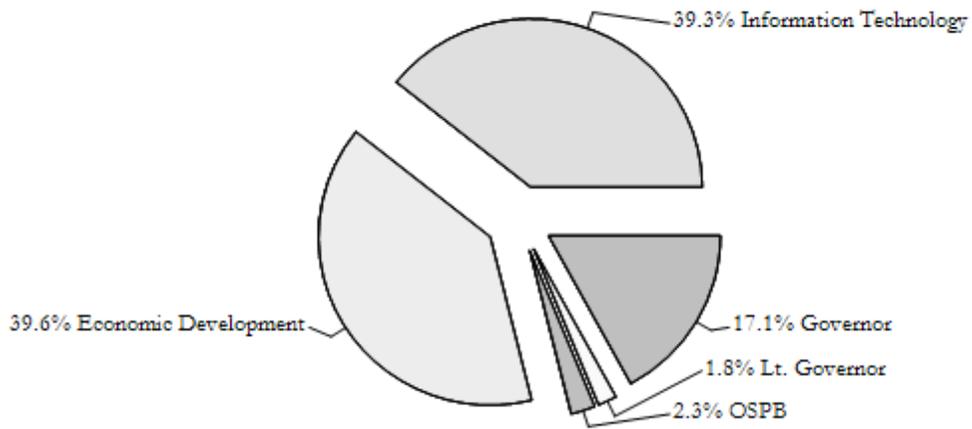


Department Funding Sources

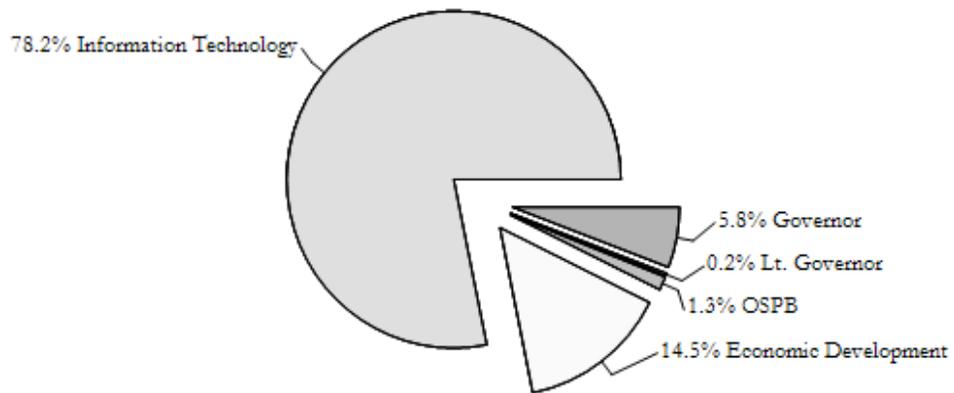


All charts are based on the FY 2019-20 appropriation.

Distribution of General Fund by Division



Distribution of Total Funds by Division



All charts are based on the FY 2019-20 appropriation.

GENERAL FACTORS DRIVING THE BUDGET

Funding for this department consists of 13.1 percent General Fund, 12.7 percent cash funds, 72.5 percent reappropriated funds, and 1.7 percent federal funds for FY 2019-20. The major factors driving the Department's budget are discussed below for each agency.

OFFICE OF THE GOVERNOR (DIVISION)

FUNDING SOURCE	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21 *
General Fund	\$5,030,265	\$8,604,803	\$9,060,230	\$10,826,330
Cash Funds	8,076,329	8,023,620	8,974,745	8,749,756
Reappropriated Funds	870,409	1,366,074	1,170,307	1,429,268
Federal Funds	3,913,382	4,224,937	4,349,276	4,142,870
TOTAL FUNDS	\$17,890,385	\$22,219,434	\$23,554,558	\$25,148,224
Full Time Equiv. Staff	40.7	58.5	59.7	59.7

*Requested appropriation.

CENTRALLY APPROPRIATED LINE ITEMS

The budget for the Office of the Governor (division) is driven by the centrally appropriated line items (e.g. health, life, and dental insurance coverage, short-term disability payments, and payments to PERA) supporting 144.0 FTE within several agencies of the department (does not include the Governor's Office of Information Technology). The amount of funding provided is determined by common policies adopted by the General Assembly.

COLORADO ENERGY OFFICE

House Bill 12-1315 (Reorganization Of Governor's Energy Office) changed the statutory mission of the Colorado Energy Office (CEO) from promoting renewable energy and energy efficiency to encouraging all sources of energy development and funded the Office's operations with transfers into cash funds from the General Fund and severance tax revenue. For five consecutive fiscal years (FY 2012-13 through FY 2016-17), H.B. 12-1315 mandated that CEO receive an annual transfer of \$1.6 General Fund and \$1.5 from severance tax revenue to support its statutorily-obligated programming. The final transfers of these funds occurred on July 1, 2016. The General Assembly did not reauthorize these transfers for FY 2017-18. In absence of state funding, CEO worked with its federal partners at the U.S. Department of Energy to repurpose \$3.1 million from a federal grant to cover the costs of the Office for FY 2017-18. The Office was appropriated \$3.1 million General Fund in FY 2018-19 and \$2.9 million in FY 2019-20 to fund its operations.

In addition to General Fund, the Office also receives transfers of severance tax revenue (as one of the Natural Resource and Energy Programs) into two funds: the Weatherization Low-Income Energy Assistance Fund and the Energy Outreach Low-Income Energy Assistance Fund. The Weatherization Low-Income Energy Assistance Fund receives an annual transfer of up to \$6,500,000 for energy efficiency services for low-income households. The Energy Outreach Low-Income Energy Assistance Fund receives an annual transfer of up to \$3,250,000, which is passed through to Energy Outreach Colorado to provide utility bill payment assistance for low-income households. These transfers fluctuate based on the total amount of severance taxes collected by the state. According to Legislative Council Staff revenue forecasts, for FY 2020-21, the Weatherization Low-Income Energy Assistance

Fund is projected to receive \$3.2 million and the Energy Outreach Low-Income Energy Assistance Fund is projected to receive \$1.6 million, which represents about 49.3 percent of the authorized transfer amount.

OFFICE OF THE LIEUTENANT GOVERNOR

FUNDING SOURCE	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21 *
General Fund	\$506,117	\$829,855	\$940,763	\$840,763
Cash Funds	1,184	1,184	1,184	1,184
Reappropriated Funds	0	0	0	0
Federal Funds	0	0	0	0
TOTAL FUNDS	\$507,301	\$831,039	\$941,947	\$841,947
Full Time Equiv. Staff	5.9	5.7	7.0	7.0

*Requested appropriation.

Nearly all of the funding for the Office of the Lieutenant Governor in FY 2019-20 was from the General Fund. From FY 2017-18 to FY 2019-20, the agency’s General Fund appropriations grew by 85.9 percent for a variety of purposes summarized below.

- For FY 2017-18, the Office received an increase of \$67,090 General Fund for the Commission of Indian Affairs to lead an initiative to coordinate health care issues between Medicaid providers, the federal Indian Health Services (IHS) agency, and tribal governments. In cooperation with the Departments of Health Care Policy and Financing and Human Services, the goal of the initiative is to reduce travel time for Native Americans seeking affordable care at an IHS facility and to improve coordination of care between IHS facilities and outside providers.
- For FY 2018-19, the Office received an increase of \$100,000 General Fund to support the administrative functions of the Education Leadership Council. This multi-stakeholder council, created through an Executive Order in June 2017 by the Governor, is tasked with creating a blueprint for the state’s educational system, from early childhood through the workforce.
- For FY 2018-19, the Office received an increase of \$100,000 General Fund for Serve Colorado (the Governor’s Commission on Community Service) to support building a culture of civic engagement in the state by working in partnership with community-based organizations. This initiative was authorized in statute by the Joint Budget Committee-sponsored H.B. 18-1324 (Codify Governor's Commission On Community Service).¹
- For FY 2018-19, the Office received an increase of \$90,000 General Fund to add a Program Assistant position to support the Commission of Indian Affairs’ Executive Director and to provide additional funding for existing services and programs that the Commission delivers to fulfill its statutory obligations.²
- For FY 2019-20, the Office received an increase of \$75,000 General Fund and 1.3 FTE for the personal services and operating expenses of the office that were previously funded through other sources transferred to the Lieutenant Governor’s Office.

¹ Section 24-20-501, C.R.S.

² Section 24-44-103, C.R.S.

OFFICE OF STATE PLANNING AND BUDGETING (OSPB)

FUNDING SOURCE	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21 *
General Fund	\$1,138,174	\$1,138,174	\$1,216,136	\$1,216,136
Cash Funds	500,000	1,154,087	2,308,439	2,308,439
Reappropriated Funds	1,578,088	1,611,338	1,707,479	1,707,479
Federal Funds	0	0	0	0
TOTAL FUNDS	\$3,216,262	\$3,903,599	\$5,232,054	\$5,232,054
Full Time Equiv. Staff	20.5	20.5	21.4	21.4

*Requested appropriation.

Base appropriations for the Office of State Planning and Budgeting, which are funded from transfers to the agency from the collection of statewide indirect costs in other departments, have remained stable in recent fiscal years. In addition to base funding, the General Assembly has provided appropriations to the Office for a variety of special projects that have impacted the agency's General Fund and cash funds appropriations. Several of these special project appropriations are highlighted below.

- For FY 2017-18, the Office received an increase of \$500,000 General Fund to deliver elements of the Performance Management Academy through the Center for Organizational Effectiveness and increase the number of state employees receiving leadership and process improvement training.
- For FY 2017-18, the Office received an increase of \$500,000 cash funds from the Marijuana Tax Cash Fund to fund a grant program for state agencies to embark on projects to evaluate and/or assist in the implementation of programs funded from the Marijuana Tax Cash Fund.
- House Bill 18-1323 (Pay For Success Contracts Pilot Program Funding), sponsored by the Joint Budget Committee, transfers specified amounts from the General Fund and the Marijuana Tax Cash Fund to the Youth Pay for Success Initiatives Account within the Pay for Success Contracts Fund for FY 2018-19 through FY 2021-22. The Office may expend this money for three specified Pay for Success contracts for pilot programs designed to reduce juvenile involvement in the justice system, reduce out-of-home placements of juveniles, and improve on-time high school graduation rates. This program has a General Fund impact of \$763,917 for FY 2020-21 and a total General Fund impact of \$1.9 million between FY 2018-19 and FY 2022-23. Additionally, the program has a Marijuana Tax Cash Fund impact of \$1,378,074 for FY 2020-21 and a total Marijuana Tax Cash Fund impact of \$4.4 million between FY 2018-19 and FY 2022-23.³

TRANSFERS TO THE OFFICE OF STATE PLANNING AND BUDGETING YOUTH PAY FOR SUCCESS INITIATIVES ACCOUNT						
TRANSFER SOURCE	FY 2018-19	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	TOTAL
General Fund	\$248,509	\$439,912	\$763,917	\$215,495	\$225,395	\$1,893,228
Marijuana Tax Cash Fund	469,903	1,368,527	1,378,074	116,896	1,098,900	4,432,300
TOTAL	\$718,412	\$1,808,439	\$2,141,991	\$332,391	\$1,324,295	\$6,325,528

³ Sections 24-37-403 and 404, C.R.S.

OFFICE OF ECONOMIC DEVELOPMENT AND INTERNATIONAL TRADE
(OEDIT)

FUNDING SOURCE	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21 *
General Fund	\$20,232,051	\$20,953,461	\$21,030,555	\$20,942,462
Cash Funds	33,262,434	33,621,274	35,048,635	35,055,550
Reappropriated Funds	85,291	260,291	260,291	260,291
Federal Funds	2,421,338	2,421,338	2,427,164	2,425,014
TOTAL FUNDS	\$56,001,114	\$57,256,364	\$58,766,645	\$58,683,317
Full Time Equiv. Staff	60.6	60.6	60.6	63.6

*Requested appropriation.

Funding for the Office of Economic Development and International Trade (OEDIT) is primarily from the General Fund (35.8 percent in FY 2019-20) and cash funds (59.6 percent in FY 2019-20). General Fund is appropriated to the Office for general administration and program support, tourism promotion, financial incentives, film incentives, and job training grants. In FY 2017-18, the General Assembly reduced the Office’s General Fund appropriations by 20.8 percent due to two actions. First, the appropriation for film incentives was reduced by \$2,250,000 General Fund. Second, a portion of the General Fund appropriation for the advanced industries grant program (\$3,073,630) was refinanced with cash funds from the Advanced Industries Acceleration Cash Fund.

65.6 percent of the Office’s cash fund appropriations for FY 2019-20 originated as limited gaming tax revenue. Senate Bill 13-133 (Distribution of State Share of Ltd Gaming Revenues) modified the distribution of the state share of the Limited Gaming Fund to bring more consistency to the transfers. Specifically, the bill amended the distribution to various cash funds at the close of each fiscal year from a percentage-based amount to a fixed-dollar amount, as shown in the following table.⁴

LIMITED GAMING TAX REVENUE TRANSFERS TO OEDIT PURSUANT SECTION 44-30-701 (2)(A), C.R.S.	
Travel and Tourism Promotion Fund	\$15,000,000
Advanced Industries	5,500,000
Creative Industries	2,000,000
Film, TV, and Media	500,000
TOTAL	\$23,000,000

Additionally, cash fund revenue is appropriated to the Office from the Advanced Industries Acceleration Cash Fund, mentioned above. Beginning in FY 2013-14 and running through FY 2023-2024, S.B. 11-047 (Heath/Gerou & Riesberg) redirects 50.0 percent of the growth of the total amount state income taxes deducted and withheld from employees' wages who work in specific Colorado businesses to the Advanced Industries Acceleration Cash Fund instead of the General Fund. For FY 2018-19, \$13,368,118 was credited to the Advanced Industries Acceleration Cash Fund instead of the General Fund, pursuant to statute added by S.B. 11-047.⁵

It is important to note that OEDIT is also responsible for implementing several other programs that impact the amount of General Fund revenue available for appropriations each year, including the

⁴ Section 44-30-701 (2)(a), C.R.S.

⁵ Section 39-22-604.3, C.R.S.

Enterprise Zone Program, the Job Growth Incentive Tax Credit Program, and the Regional Tourism Act. These programs and impacts as of the most recent annual report are summarized below:

- The Enterprise Zone Program provides state income tax credits to encourage businesses to locate and grow in areas of high unemployment, low per capita income, and out-migration or slow population growth. \$54,258,780 in business tax credits were issued (or certified) in FY 2017-18 as part of the Program.
- The Job Growth Incentive Tax Credit Program provides a state income tax credit to businesses undertaking job creation projects that would not occur in Colorado without this program and that have created new high paying positions in the state. \$10,925,550 in business tax credits have been issued in calendar year 2018, to date, as part of the Program.
- The Regional Tourism Act funds five tourism projects via state sales tax increment financing with the goal of increasing the amount of new out-of-state visitors. \$6,656,505 was paid by the Department of Revenue to Regional Tourism Act project financing entities in FY 2017-18. Note, the Program is no longer accepting applications.

GOVERNOR'S OFFICE OF INFORMATION TECHNOLOGY (OIT)

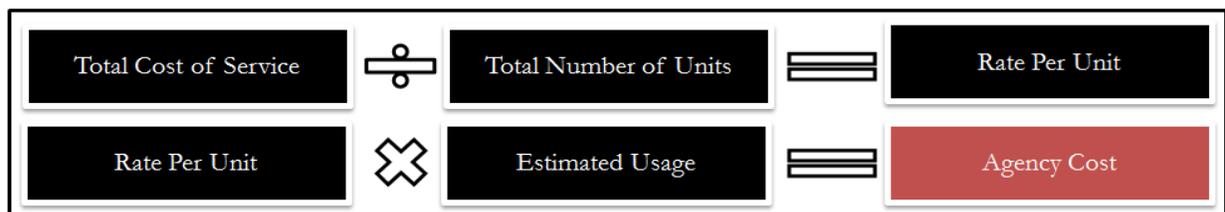
FUNDING SOURCE	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21 *
General Fund	\$8,418,058	\$10,982,657	\$20,850,710	\$21,088,360
Cash Funds	5,560,553	5,089,678	5,219,743	3,866,940
Reappropriated Funds	242,818,183	253,635,605	290,465,286	297,850,235
Federal Funds	121,000	121,000	121,000	121,000
TOTAL FUNDS	\$256,917,794	\$269,828,940	\$316,656,739	\$322,926,535
Full Time Equiv. Staff	963.5	957.5	1,008.3	1,032.8

*Requested appropriation.

Senate Bill 08-155 (Centralize IT Management In OIT) consolidated the responsibility for information technology oversight of most of the state's executive branch agencies in the Governor's Office of Information Technology (OIT). As a result, information technology employees in state agencies were transferred to OIT between July 1, 2008 and July 1, 2012. The largest transfer of employees occurred during FY 2010-11 when 680.7 FTE and \$57.7 million were transferred from state agencies to OIT.

Pursuant to the centralization initiative, OIT provides services to state agencies on a cost reimbursement basis, with OIT acting as a vendor. Each service offered by OIT to state agencies has a mixture of costs associated with its delivery (e.g. personal services and operating expenses). The appropriations needed to support these costs for each service offered by OIT are determined by the Joint Budget Committee during the figure setting process. The appropriations appear in the Long Bill in the OIT division as reappropriated funds (spending authority for moneys transferred to OIT from other state agencies). The revenue needed to support OIT's spending authority is derived from direct appropriations made to state agencies each year in a "Payments to OIT" line item that appears in the Long Bill for each agency. These appropriations are made from the General Fund, cash funds, and federal funds.

The cost to each agency for services provided by OIT is based on a service-by-service rate structure whereby the total cost for OIT to provide the service across the state is divided by the total number of units of that service. This calculation generates a rate per unit. The cost to each agency is based on its anticipated consumption of a service's unit of measurement multiplied by the established rate. OIT bills each agency on a monthly basis for 1/12th of the full amount of the agency's appropriation in its Payments to OIT line item.



The General Assembly has provided additional appropriations in recent fiscal years for a variety of services. These changes, highlighted on the following page, have increased the amount appropriated to state agencies for the information technology common policy.

- For FY 2017-18, the Office received an increase of \$2,973,689 reappropriated funds transferred from state agencies for several initiatives related to the state’s cybersecurity program known as “Secure Colorado.”
- For FY 2017-18, the Office received an increase of \$965,084 reappropriated funds transferred from state agencies to add state employees and contract resources to the Office’s deskside support team.
- For FY 2018-19, the Office received an increase of \$5,228,160 reappropriated funds transferred from state agencies to transition from a non-consolidated licensing approach for operating system and Microsoft Office applications to a centralized approach managed by the Office for all state agencies. A portion of the total funds needed for this item were offset by reductions across nearly all agencies from operating line items that historically funded operating system and Microsoft Office licenses.
- For FY 2019-20, the Office received an increase of \$11,857,490 reappropriated funds transferred from state agencies and 9.0 FTE to accelerate the pace at which the Secure Colorado cybersecurity strategic plan created by the agency’s Office of Information Security and the Colorado Information Security Advisory Board, is implemented, as well as to implement new initiatives identified through recent analyses of the state’s capabilities.
- For FY 2019-20, the Office received an increase of \$3,139,756 reappropriated funds transferred from state agencies to OIT and 2.0 FTE to enter into a statewide enterprise license agreement (ELA) with a vendor for Enterprise Service Bus technologies. The staff increase will provide support services for Enterprise Service Bus implementation. An Enterprise Service Bus implements a communication system between mutually interacting software applications such that data can be shared from application to application without removing the data from its underlying databases.

Outside of OIT’s collection of recoverable costs associated with the information technology common policy, expenses for the operation of the Colorado Benefits Management System (CBMS) are billed directly to the Department of Human Services and Department of Health Care Policy and Financing. CBMS is the information technology system used to determine a citizen's eligibility for public assistance programs like Medicaid, the Supplemental Nutrition Assistance Program (SNAP), Temporary Assistance for Needy Families (TANF), Old Age Pension (OAP), and many others. The following table highlights appropriations made to OIT for CBMS over the past six fiscal years, and the Office’s request for FY 2020-21 for comparison.

APPROPRIATIONS TO OIT FOR CBMS (REAPPROPRIATED FUNDS)						
FY 2014-15	FY 2015-16	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21*
\$64,996,580	\$30,529,339	\$53,026,031	\$60,743,224	\$63,177,819	\$66,653,122	\$66,376,327

*Requested appropriation.

SUMMARY: FY 2019-20 APPROPRIATION & FY 2020-21 REQUEST

GOVERNOR - LIEUTENANT GOVERNOR - STATE PLANNING AND BUDGETING						
	TOTAL FUNDS	GENERAL FUND	CASH FUNDS	REAPPROPRIATED FUNDS	FEDERAL FUNDS	FTE
FY 2019-20 APPROPRIATION:						
SB 19-207 (Long Bill)	392,560,806	43,065,857	51,422,681	291,174,828	6,897,440	1,152.7
Other legislation	12,591,137	10,032,537	130,065	2,428,535	0	4.3
TOTAL	\$405,151,943	\$53,098,394	\$51,552,746	\$293,603,363	\$6,897,440	1,157.0
FY 2020-21 REQUESTED APPROPRIATION:						
FY 2019-20 Appropriation	\$405,151,943	\$53,098,394	\$51,552,746	\$293,603,363	\$6,897,440	1,157.0
OFFICE OF THE GOVERNOR						
R1 (GOV) Move education leadership funds	0	0	0	0	0	0.0
COLORADO ENERGY OFFICE						
R1 (CEO) Legal services for Energy Office	110,864	110,864	0	0	0	0.0
OFFICE OF INFORMATION TECHNOLOGY						
R1 (OIT) Colorado Digital Services	1,240,560	1,240,560	0	0	0	7.0
R2 (OIT) myColorado App	1,540,521	0	0	1,540,521	0	3.0
R3 (OIT) Statewide data sharing pilot	279,075	0	0	279,075	0	2.0
R4 (OIT) Customer-focused tools for IT	679,188	0	0	679,188	0	0.0
R5 (OIT) Disaster recovery staff	400,000	0	0	400,000	0	2.0
R6 (OIT) Improve network stability and connectivity	1,130,900	0	0	1,130,900	0	0.0
R7 (OIT) IT service and support management	1,250,000	0	0	1,250,000	0	0.0
R8 (OIT) Mainframe services reduction	(222,714)	0	0	(222,714)	0	0.0
R9 (OIT) Central admin reduction	(473,728)	0	0	(473,728)	0	(2.0)
R10 (OIT) Network services reduction	(209,000)	0	0	(209,000)	0	0.0
R11 (OIT) Long Bill reorganization	0	0	0	0	0	0.0
R12 (OIT) Applications reduction	(541,802)	(67,098)	(31,938)	(442,766)	0	(1.0)
R13 (OIT) Server management reduction	(1,945,120)	0	0	(1,945,120)	0	0.0
R14 (OIT) Voice and data reduction	(2,200,000)	0	(1,200,000)	(1,000,000)	0	0.0
OFFICE OF ECONOMIC DEVELOPMENT AND INTERNATIONAL TRADE						
R1 (OEDIT) Extend procurement technical assistance program ^a	220,000	0	220,000	0	0	0.0
R2 (OEDIT) Small business development centers	140,000	140,000	0	0	0	0.0
R3 (OEDIT) Extend rural jump start ^a	40,492	40,492	0	0	0	0.5
R4 (OEDIT) Add Outdoor Recreation Office line item	0	0	0	0	0	3.0
R5 (OEDIT) PTAC technical	(220,000)	(220,000)	0	0	0	0.0
R6 (OEDIT) Administrative funds technical	(4,585)	0	(2,435)	0	(2,150)	0.0
R7 (OEDIT) Creative district interest	10,786	0	10,786	0	0	0.0
OTHER CHANGES						
Nonprioritized requests	11,004,401	12,041	0	10,992,360	0	3.0
Centrally appropriated line items	6,171,437	1,632,911	(224,944)	4,968,626	(205,156)	0.0
Indirect cost assessment	97,177	0	(1,481)	99,908	(1,250)	0.0
Prior year budget action	(8,165,545)	(55,587)	0	(8,109,958)	0	11.0
Prior year legislation	(2,652,773)	(1,018,526)	(340,865)	(1,293,382)	0	(1.0)
TOTAL	\$412,832,077	\$54,914,051	\$49,981,869	\$301,247,273	\$6,688,884	1,184.5
INCREASE/(DECREASE)	\$7,680,134	\$1,815,657	(\$1,570,877)	\$7,643,910	(\$208,556)	27.5
Percentage Change	1.9%	3.4%	(3.0%)	2.6%	(3.0%)	2.4%

^a Requests with this annotation require special legislation and is not requested to be a JBC-sponsored bill.

OFFICE OF THE GOVERNOR

R1 (GOV) MOVE EDUCATION LEADERSHIP FUNDS: The request includes a transfer of \$100,000 General Fund from the Lieutenant Governor's Administration line item to the Governor's Office Administration line item bring appropriations for the Education Leadership Council (ELC) in line with current operations. Under the prior administration, the ELC was managed by the Lieutenant Governor's chief of staff, who assumed responsibility for coordinating meetings and working with Commission members to develop policy priorities. The Polis administration has chosen the senior education policy advisor for education in the Governor's office to assume these responsibilities. Transferring funds from one line to the other will appropriately align the budget with the management of the programming

COLORADO ENERGY OFFICE

R1 (CEO) LEGAL SERVICES FOR ENERGY OFFICE: The request includes an increase of \$110,864 General Fund for anticipated legal service costs of the Colorado Energy Office's (CEO's) participation in Air Quality Control Commission and Public Utility Commission proceedings. CEO has a statutory right to intervene in Public Utility Commission proceedings involving gas or electric utilities and intervenes in Air Quality Control Commission proceedings when its interests are not adequately represented, at the discretion of the Commission. As described by the Department, the request for additional hours outside the new average billing methodology is necessary due to the rate at which legal service use has increased. Between FY 2016-17 and FY 2019-20, the CEO's legal service hours have increased from 1,274 to 2,878 and its cost to provide has exceeded its appropriation by an average of \$54,000 during that period. The authority to engage with either commission is permissive, statute does not require it to participate.

OFFICE OF INFORMATION TECHNOLOGY

R1 (OIT) COLORADO DIGITAL SERVICES: The request includes an increase of \$1,240,560 General Fund and 7.0 FTE to continue the Colorado Digital Services program in FY 2020-21 and ongoing. As the new Administration was seated, it was clear that there have been fundamental problems embedded in the IT culture, which stemmed from such things as: unclear lines of responsibility and ownership, needing to increase accountability, and a need to change the culture in our departments regarding high-level high-dollar projects. To address these concerns, the Governor endeavored to create a program offering term-limited opportunities to bring in IT professionals modeled after Digital Services initiatives implemented by the federal government.

R2 (OIT) MYCOLORADO APP: The request includes requests an increase of \$1,949,096 total funds and 8.0 total FTE with \$1,540,521 Reappropriated Funds and 3.0 FTE to OIT and \$408,575 Cash Funds and 5.0 FTE for the Department of Revenue (DOR) in FY 2020-21 to provide the necessary resources to support and maintain the myColorado application and digital ID mobile driver license (mDL). As a part of Governor Polis' new vision, the first priority of these resources will be to support and socialize an mDL that meets the REAL ID Act standards. The second year impact for the request includes \$1,911,472 total funds and 8.0 FTE with \$1,526,412 Reappropriated Funds to OIT with 3.0 FTE and \$385,060 Cash Funds and 5.0 FTE for DOR in FY 2021-22 and ongoing

R3 (OIT) STATEWIDE DATA SHARING PILOT: The request includes an increase of \$279,075 reappropriated funds and 2.0 FTE in FY 2020-21, \$734,123 and 3.5 FTE in FY 2021-22 and \$1,069,471 and 5.0 FTE in FY 2022-23 and ongoing to support staff and tools within OIT to improve standard and systematic data management, governance, and sharing across state departments.

R4 (OIT) CUSTOMER FOCUSED TOOLS FOR IT: The request includes an increase of \$679,188 in FY 2020-21, and \$669,556 in FY 2021-22 and ongoing to support Customer Relationship Management (CRM) software and tools for financial planning and customer reporting. The source of funds is reappropriated funds allocated to user agencies. The request provides OIT IT Directors, IT Program and Portfolio Managers, senior leadership, service owners, and the finance office with specific tools that enhance customer experience through each interaction and support financial transparency.

R5 (OIT) DISASTER RECOVERY STAFF: The request includes \$400,000 reappropriated funds and 2.0 FTE in FY 2020-21, and \$390,594 and 2.0 FTE in FY 2021-22 and ongoing to support the development of IT Disaster Recovery plans for approximately 148 essential and critical applications and ensure business continuity across departments. OIT successfully completed and implemented the Backup Colorado project in June 2017 to provide a robust backup and recovery solution for all department critical applications. As part of Backup Colorado, all OIT-managed applications and associated data are now protected via backup and recovery enterprise solutions. OIT also established infrastructure redundancy and data replication across its two main data centers to ensure no loss of data in the event of a disaster. Despite the success of the Backup Colorado program, OIT does not have any dedicated staff to establish and maintain IT disaster recovery plans, as well as provide training and compliance sustainability. Without staff to maintain recovery plans and provide training, the state risks running afoul of federal requirements such as those from the IRS and those related to HIPPA.

R6 (OIT) IMPROVE NETWORK STABILITY AND CONNECTIVITY: The request includes an increase of \$1,130,900 in FY 2020-21, \$1,817,591 in FY 2021-22, and \$2,504,281 in FY 2022-23 and ongoing to expand the Colorado State Network (CSN) Circuits service currently within Common Policy. This funding will allow departments to take advantage of the redundancy and expansion capability now available through additional service providers. Costs associated with the service will continue to be budgeted and billed via OIT common policy based on the direct circuit costs incurred.

R7 (OIT) IT SERVICE AND SUPPORT MANAGEMENT: \$1,250,000 Reappropriated Funds in FY 2020-21 and beyond to support the purchase of licenses and ongoing maintenance for the upgraded and enhanced IT Service Management (ITSM) suite. This integrated tool will improve customer experience through a single hub for all customer needs and inquiries, faster processing with automated workflow, and better IT data with on demand analysis.

R8 (OIT) MAINFRAME SERVICES REDUCTION: The request includes a decrease of \$222,714 reappropriated funds in FY 2020-21 and ongoing to purchase, rather than lease, mainframe hardware utilized by several agencies. When OIT consolidated in 2008, the mainframe was being used by many state departments for legacy applications. Great efforts have been made in recent years to move those legacy applications off the mainframe. Currently, the mainframe supports twelve different state departments, however most of the utilization is tied to just three departments, the Colorado Department of Human Services (CDHS), Department of Revenue (DOR), and the Colorado Department of Labor and Employment (CDLE). OIT mainframe service managers continue on work to retire this service offering and eliminate the State's need for a mainframe.

R9 (OIT) CENTRAL ADMINISTRATION REDUCTION: The request includes a decrease of \$473,728 reappropriated funds and 2.0 FTE to remove the outdated Information Technology Service Management service catalog and suite, and eliminate redundant training offerings. The request to remove the service catalog and suite is dependent upon at least part of the Department's R4 Customer-focused tools for IT being approved, which is related to implementation of the IT Financial Tool. The reduction requested through this item will reduce the amount of funds allocated to state agencies through the Officer's common policy.

R10 (OIT) NETWORK SERVICES REDUCTION: The request includes a reduction for the appropriation to the Network Administration and Public Safety Communications Network (PSCN) appropriations within the Network services budget by \$209,000 reappropriated funds. Specifically, an annualization error from the Backup Colorado budget request makes up \$160,000 of the total budget reduction. OIT is proposing a \$49,000 reduction to PSCN travel and training dollars, because they are also considered low risk. OIT will attempt to reduce training expenditures related to tower re-certifications by taking advantage of "Train the Trainer" tower rescue safety programs and conduct re-certifications in house. The travel budget reduction would be an approximately 20% cut, leaving an adequate amount for required travel needs.

R11 (OIT) OIT LONG BILL REORGANIZATION: The request includes total budget neutral reorganization of the Office's Long Bill line item to align appropriations with broad categories of services provided. The reorganization is requested to allow for long-term trend analysis of major spending categories, increase flexibility needed to support efficient IT service delivery for departments, and to align an allocation of 5.0 FTE with their current job function.

R12 (OIT) APPLICATIONS REDUCTION: The request includes a decrease of \$541,802 total funds and 1.0 FTE, consisting of \$67,098 is General Fund, \$31,938 are Cash Funds, and \$442,766 are reappropriated funds. The request would reduce the budget for Skillsoft, a training program which is being underutilized. OIT is additionally proposing to keep the vacant Director of IT Applications position unfilled, because the position has not been filled for the past year, and the team has been able to manage daily operations without this resource.

R13 (OIT) SERVER MANAGEMENT REDUCTION: The request includes a decrease of \$1,945,120 reappropriated funds where OIT has identified annualization errors from Backup Colorado and Active Directory that need to be corrected. As a result of reducing these annualization errors, OIT is proposing a reduction to costs that should minimize any negative impact to external agency services.

R14 (OIT) VOICE AND DATA REDUCTION: The request includes a decrease of \$2,200,000 total funds, including \$1,200,000 cash funds and \$1,000,000 reappropriated funds. The reduction sought will eliminate a redundant cash fund appropriation related to a correction made by the Office in how telecommunication charges are assigned and a reduction in reappropriated fund spending authority to align it with expected revenue.

OFFICE OF ECONOMIC DEVELOPMENT AND INTERNATIONAL TRADE

R1 (OEDIT) EXTEND PROCUREMENT TECHNICAL ASSISTANCE PROGRAM: Requires a bill, which the Office is seeking from other members of the General Assembly and is not requested as a JBC bill. The request includes an increase of \$220,000 in ongoing funds for the Colorado Procurement

Technical Assistance Center (PTAC) from the Procurement Technical Assistance Cash Fund. Colorado PTAC provides resources and consulting to local businesses applying for government contracts at the federal, state, and local levels. The Colorado PTAC has annually received \$220,000 in cash funds from the State of Colorado, drawing down matching funds from the Federal Government, since the passage of H.B. 14-1016, which expires after Fiscal Year 2019-20 (24-48.5-121, C.R.S.). Due to the Long Bill being written to conform to current law, JBC staff communicated to the Office that the funding in this request should be included as an appropriation in the bill it is seeking.

R2 (OEDIT) SMALL BUSINESS DEVELOPMENT CENTERS: The request includes an increase of \$140,000 General Fund in FY 2020-21 and ongoing to support the Small Business Development Centers (SBDC) line item. SBDCs provide a variety of training and support services to aspiring entrepreneurs and small businesses across the state. This funding will enhance the business support and technical assistance provided by Colorado's SBDCs in rural Colorado, consistent with OEDIT's goal to enhance rural economic development. OSPB ranks this program at level 3 on the evidence continuum.

R3 (OEDIT) EXTEND RURAL JUMP START: The request includes an increase of \$40,492 in General Fund in FY 2020-21 to support 0.5 FTE to extend the Rural Jump-Start program. The program provides tax benefits to select businesses and their employees in rural areas of the state. The program has received \$80,983 annually from S.B. 15-282, which expires on December 31, 2020 (39-30.5-101, C.R.S.). Due to the Long Bill being written to conform to current law, JBC staff communicated to the Office that the funding in this request should be included as an appropriation in the bill it is seeking.

R4 (OEDIT) ADD OUTDOOR RECREATION OFFICE LINE ITEM: The request includes a transfer of \$370,000 General Fund and 3.0 FTE to a new line item for the Office of Outdoor Recreation. The request is to transfer \$150,000 General Fund from the Colorado Promotion – Other Program Costs line item and \$220,000 from the Global Business Development line item. This funding is already being allocated by OEDIT to the Office of Outdoor Recreation and thus the request is to reflect that appropriation in the Long Bill.

R5 (OEDIT) PROCUREMENT TECHNICAL ASSISTANT PROGRAM TECHNICAL: The request includes decrease of \$220,000 General Fund to the Economic Development Commission - General Economic Incentives & Marketing line item to correct a technical error. While subsequent fiscal year operation costs of the Procurement Technical Assistance Program have been funded through an annual statutory transfer, in FY 2014-15 the Long Bill provided a direct General Fund appropriation, which was never removed through the annualization process.

R6 (OEDIT) ADMINISTRATIVE FUNDS TECHNICAL: The request includes a decrease of \$4,585 in total funds from the Office's Administration line item, including \$2,435 in cash funds and \$2,150 in federal funds appropriated for administrative purposes. OEDIT's accounting team has indicated that OEDIT does not receive those funds and, therefore, proposes this reduction to align the Long Bill with OEDIT's actual expenditures.

R7 (OEDIT) CREATIVE DISTRICT INTEREST: The request includes a one-time increase of \$10,786 cash fund to support the Colorado Creative Districts program. The funding represents interest collected on loans made to creative districts. The Creative District program offers eligible districts

access to project funding through the loan fund, tailored technical assistance, networking and training programs, and professional development.

OTHER CHANGES

NONPRIORITIZED REQUEST ITEMS: The request includes an increase of \$11,004,401 total funds, including \$12,041 General Fund, for items requested by other departments that impact the agencies covered in this briefing document. The following table summarizes each requested non-prioritized item.

NONPRIORITIZED REQUESTS						
	TOTAL FUNDS	GENERAL FUND	CASH FUNDS	REAPPROPRIATED FUNDS	FEDERAL FUNDS	FTE
DHS (R14) JAI operations & maintenance	\$6,627,766	\$0	\$0	\$6,627,766	\$0	0.0
HCPF (R6) Improve customer service	3,001,446	0	0	3,001,446	0	1.0
DHS (R15) Phone systems	917,525	0	0	917,525	0	0.0
DHS (R18) E-Health Record support	274,576	0	0	274,576	0	2.0
NAT (R1) OGCC E-filing system	147,840	0	0	147,840	0	0.0
DPA Annual fleet request for OIT	23,207	0	0	23,207	0	0.0
DPA Annual fleet vehicle request	12,203	12,203	0	0	0	0.0
OIT Budget request package	(162)	(162)	0	0	0	0.0
TOTAL	\$11,004,401	\$12,041	\$0	\$10,992,360	\$0	3.0

CENTRALLY APPROPRIATED LINE ITEMS: The request includes an increase of \$6,171,437 total funds, including \$1,632,911 General Fund, for adjustments to centrally appropriated line items, which is summarized below:

CENTRALLY APPROPRIATED LINE ITEMS						
	TOTAL FUNDS	GENERAL FUND	CASH FUNDS	REAPPROPRIATED FUNDS	FEDERAL FUNDS	FTE
Salary survey	\$2,263,480	\$246,454	\$63,580	\$1,907,362	\$46,084	0.0
Health, life, and dental	1,743,929	70,949	(75,005)	1,863,094	(115,109)	0.0
Payments to OIT	1,028,656	1,028,656	0	0	0	0.0
AED	336,345	73,128	(84,211)	401,394	(53,966)	0.0
SAED	336,345	73,128	(84,211)	401,394	(53,966)	0.0
(OIT) Leased space	241,243	0	0	241,243	0	0.0
(OIT) Risk management / property funds	121,327	0	0	121,327	0	0.0
Legal services	99,980	66,538	0	33,442	0	0.0
Risk management / property funds	56,080	28,040	0	28,040	0	0.0
(OIT) CORE	54,617	0	0	54,617	0	0.0
(OIT) Shift differential	40,466	0	0	40,466	0	0.0
CORE	19,330	0	3,093	13,144	3,093	0.0
Capitol Complex leased space	17,506	13,286	0	4,220	0	0.0
(OIT) Capitol Complex leased space	12,954	0	0	12,954	0	0.0
Short-term disability	9,876	1,665	(3,052)	13,131	(1,868)	0.0
(OIT) Legal services	4,750	0	0	4,750	0	0.0
PERA Direct Distribution	(112,775)	40,047	(45,138)	(78,260)	(29,424)	0.0
(OIT) Workers' compensation	(89,843)	0	0	(89,843)	0	0.0
Workers' compensation	(12,829)	(8,980)	0	(3,849)	0	0.0
TOTAL	\$6,171,437	\$1,632,911	(\$224,944)	\$4,968,626	(\$205,156)	0.0

INDIRECT COST ASSESSMENT: The request includes an increase of \$97,177 total funds for both departmental and statewide indirect cost assessments. The following table summarizes each requested indirect cost assessment adjustment by agency.

INDIRECT COST ASSESSMENT						
DIVISION	TOTAL FUNDS	GENERAL FUND	CASH FUNDS	REAPPROPRIATED FUNDS	FEDERAL FUNDS	FTE
Office of Information Technology	\$99,908	\$0	\$0	\$99,908	\$0	0.0
Office of Economic Development	(1,436)	0	(1,436)	0	0	0.0
Colorado Energy Office	(1,250)	0	0	0	(1,250)	0.0
Office of the Governor	(45)	0	(45)	0	0	0.0
TOTAL	\$97,177	\$0	(\$1,481)	\$99,908	(\$1,250)	0.0

ANNUALIZE PRIOR YEAR BUDGET ACTION: The request includes a decrease of \$8,165,545 total funds, including \$55,587 General Fund, for adjustments related to prior year budget actions, primarily decision items. The following table summarizes each annualization.

PRIOR YEAR BUDGET ACTION						
	TOTAL FUNDS	GENERAL FUND	CASH FUNDS	REAPPROPRIATED FUNDS	FEDERAL FUNDS	FTE
(OIT) FY19-20 GenTax	\$760,091	\$0	\$0	\$760,091	\$0	7.0
Prior year salary survey	579,038	3,164	0	575,874	0	0.0
(OIT) FY19-20 OS and productivity suite	441,122	0	0	441,122	0	0.0
(OIT) FY19-20 UI management operating	413,335	0	0	413,335	0	4.0
(OIT) FY19-20 Enterprise data integration	270,594	0	0	270,594	0	0.0
(OIT) HCPF FY19-20 CBMS PEAK	160,909	0	0	160,909	0	0.0
(OIT) FY19-20 Operations and administration center relocation	60,685	0	0	60,685	0	0.5
(OEDIT) Leased space contract escalator	6,124	6,124	0	0	0	0.0
(OIT) FY19-20 Medicaid enterprise operating costs	(5,185,340)	0	0	(5,185,340)	0	0.0
(OIT) FY19-20 Securing IT operations	(2,437,623)	0	0	(2,437,623)	0	0.0
(OIT) FY19-20 DOC DeCORuM maintenance	(834,144)	0	0	(834,144)	0	0.0
(OIT) HCPF FY19-20 Local administration transfer	(801,240)	0	0	(801,240)	0	0.0
(OIT) FY19-20 Transform customer experience	(796,000)	0	0	(796,000)	0	0.0
(OIT) Prior year salary survey	(643,141)	(3,164)	0	(639,977)	0	0.0
(OIT) FY19-20 Optimize self-service capabilities	(60,620)	0	0	(60,620)	0	0.0
(OEDIT) Rural jump start	(40,492)	(40,492)	0	0	0	(0.5)
(OIT) FY19-20 Essential database support	(37,624)	0	0	(37,624)	0	0.0
(OEDIT) PTAC supplemental	(21,219)	(21,219)	0	0	0	0.0
TOTAL	(\$8,165,545)	(\$55,587)	\$0	(\$8,109,958)	\$0	11.0

ANNUALIZE PRIOR YEAR LEGISLATION: The request includes a decrease of \$2,652,773 total funds, including a decrease of \$1,018,526 General Fund, for adjustments related to prior year legislation. The following table summarizes each annualization.

PRIOR YEAR LEGISLATION						
	TOTAL FUNDS	GENERAL FUND	CASH FUNDS	REAPPROPRIATED FUNDS	FEDERAL FUNDS	FTE
SB 18-200 PERA	\$515,199	\$4,971	\$0	\$510,228	\$0	0.0
SB19-005 Import prescription medication	296,160	0	0	296,160	0	0.0
SB18-1299 Local Government Retirement plan technical correction	16,590	0	0	16,590	0	0.0
SB19-006 E-Sales and Use tax	(1,250,000)	(433,000)	0	(817,000)	0	0.0
SB19-251 Requirements of OIT	(590,497)	(590,497)	0	0	0	0.0

PRIOR YEAR LEGISLATION

	TOTAL FUNDS	GENERAL FUND	CASH FUNDS	REAPPROPRIATED FUNDS	FEDERAL FUNDS	FTE
SB19-073 System for advance medical directives	(581,631)	0	0	(581,631)	0	0.0
SB19-223 Procedural competency	(344,884)	0	0	(344,884)	0	0.1
HB14-1016 Procurement technical assistance center	(220,000)	0	(220,000)	0	0	0.0
SB19-235 Automatic voter registration	(136,240)	0	0	(136,240)	0	0.0
HB19-1287 Treatment for opioids	(127,595)	0	0	(127,595)	0	(1.1)
HB19-1309 Mobile home park act	(121,945)	0	(120,865)	(1,080)	0	0.0
SB19-178 Subsidize adoption	(60,204)	0	0	(60,204)	0	0.0
SB19-143 Parole Changes	(25,200)	0	0	(25,200)	0	0.0
SB19-256 Electronic documents	(16,590)	0	0	(16,590)	0	0.0
SB19-165 Increase Parole Board	(5,936)	0	0	(5,936)	0	0.0
TOTAL	(\$2,652,773)	(\$1,018,526)	(\$340,865)	(\$1,293,382)	\$0	(1.0)

ISSUE: INITIATIVES TO IMPROVE INFORMATION TECHNOLOGY CUSTOMER SERVICE EXPERIENCE

House Bill 17-1361, sponsored by the Joint Budget Committee, required the Office of the State Auditor to contract with a consulting firm to conduct an evaluation of the state's information technology resources. The firm presented a variety of findings and recommendations to the Legislative Audit Committee in December 2018 but due to the timing of the report, the Office of Information Technology did not include any budget requests to address the findings during the last budget cycle.

SUMMARY

- Senate Bill 08-155 (Centralize IT Management In OIT) consolidated the responsibility for information technology resources, procurement, and service delivery for most of the state's executive branch agencies in the Governor's Office of Information Technology (OIT) in an effort to maximize service delivery efficiency in a cost-effective manner through the application of enterprise technology solutions.
- Pursuant to H.B. 17-1361 (Evaluate State Information Technology Resources), the Office of the State Auditor contracted with BerryDunn as an independent third-party consulting firm to evaluate whether the goals of the centralization of the state's information technology resources set forth via S.B. 08-155 are being accomplished and to provide recommendations to make improvements in areas where these goals are not being met.
- The report concluded with many recommendations, some of which required legislation and others with which the Office of Information Technology agreed, but could not implement without additional funding. The Office submitted several budget requests for FY 2020-21 in response to the report, which are summarized in this issue. The Office has tied each of these budget requests to the recommendation that an increase in customer service satisfaction will lead to increased trust between the Office and its customers.

RECOMMENDATION

Staff recommends the Committee include in its discussion with the Office of Information Technology an update on progress made on recommendations included in the BerryDunn report for which no budget requests were included in FY 2020-21.

DISCUSSION

House Bill 17-1361 (Evaluate State Information Technology Resources), sponsored by the Joint Budget Committee, required the Office of the State Auditor to contract with an independent third-party consulting firm to conduct an evaluation of the state's information technology resources. The consulting firm was tasked with evaluating the following five areas:

- 1 (Achieving Centralization Goals) The centralization of the management of state agency information technology resources in the Governor's Office of Information Technology (OIT) pursuant to S.B. 08-155 (Centralize IT Management In OIT), and whether the centralization has

achieved the goals of the General Assembly regarding the management of daily information technology operations.

- 2 (Strategic Plan for Information Technology Projects) Whether the executive branch has a strategic plan, or its equivalent, in place to guide its process for evaluating, prioritizing, and selecting information technology projects that require new or ongoing appropriations of state money.
- 3 (Interfacing with the Public Using Technology) The opportunities the state has to interface with the public through information technology, including but not limited to whether the state can take advantage of new and emerging opportunities for future automation and online citizen interaction with government and, if so, how the state could proceed with such opportunities.
- 4 (OIT Relationships with non-Centralized State Agencies) OIT’s working relationship with state agencies, departments, offices, and institutions that were not included in the centralization of state agency information technology resources pursuant to S.B. 08-155, but rely on OIT to provide certain information technology services or resources.
- 5 (Consumer Satisfaction Among State Agencies) Consumer satisfaction, to be determined through a consumer satisfaction survey among state agencies with the management of state agency information technology resources and access to state government via information technology resources.

The firm was required to submit a report with recommendations to the Legislative Audit Committee, the Joint Technology Committee, and the Joint Budget Committee by December 2018 and was submitted in November 2018 and presented to the Legislative Audit Committee on December 4, 2018. The timing of the report due date was primarily chosen to assist the General Assembly in financial planning, however, it also prevented the Office of Information Technology from making any meaningful budget requests last year, the formulation of which begins soon after the legislative session concludes in May. As JBC staff reviewed the FY 2020-21 budget request, it became apparent that some of OIT’s requests are being made to address issues highlighted by the BerryDunn report. The budget requests primarily address findings made related to improving customer satisfaction.

This issue will summarize the following requests as they relate to findings in the report submitted as required by H.B. 17-1361:

OIT REQUESTS SUBMITTED TO IMPROVE CUSTOMER EXPERIENCE		
(ALL FUNDS ARE REAPPROPRIATED FUNDS THAT ORIGINATE IN USER-AGENCIES)		
REQUEST NAME	FY 2020-21	FY 2021-22
R4 (OIT) Customer-focused tools for common policy	\$679,188	\$669,556
R7 (OIT) IT service and support management	1,250,000	1,250,000
R11 (OIT) Long Bill reorganization	0	0
Total	\$1,929,188	\$1,919,556

R4 CUSTOMER-FOCUSED TOOLS FOR COMMON POLICY

The Office of Information Technology’s (OIT or the Office) first request addressing findings in the H.B. 17-1361 report is to develop tools for user-agencies to provide information that is more easily understood and provide information that allows for planning current and future expenditures.

The consultant found that OIT’s practice of billing state agencies for services provided does not provide an effective measure to assess efficiencies or long-term cost savings. This occurs because the Office’s billing calculation is complicated and difficult to understand and changes frequently, which limits a state agency’s (and the General Assembly’s) ability to compare year-over-year changes at the services level.

The Office agreed with this finding and, as described in the request, its customers struggle to understand the connection between IT expenditures and programmatic outcomes with the current financial reporting framework. The OIT finance team currently uses a multitude of spreadsheets and relational databases to track and report basic financial data for IT services. Reports include information on service costs/usage, rate development, service code narratives, and other information that is important for OIT customers. The heavy reliance on spreadsheets and complex formulas increases the potential for errors and increases customer skepticism. Currently there is minimal process automation and data is shared with customers in a static snapshot. The following is an example of utilization data provided to agencies on a monthly basis.

Service Code	Service Name Utilization Criteria	Projected Monthly Utilization	July 2018 Act/Proxy	Aug 2018 Act/Proxy	Sept 2018 Act/Proxy	Oct 2018 Act/Proxy	Nov 2018 Act/Proxy	Dec 2018 Act/Proxy	Annual Proj YTD Actual
REVENUE									
2101	Mainframe Computing	25,000							300,000
	per service unit (in 1,000's)		17,698	15,351	13,230	13,577	13,218	13,335	86,407
2110	Computing Operations	314							3,769
	per defined job scheduled		3,355	2,843	2,910	3,121	3,328	2,680	18,237
2151	ADABAS	0							0
	per service unit (in 1,000's)		65,558	99,796	95,105	57,236	95,861	97,661	511,217
2261	OIT-Owned Compute	204							2,448
	per Server instance per month		172	170	168	168	163	163	1,004
2262	OIT-Owned Storage	318							3,816
	per TB of storage per month		713	713	713	713	619	619	4,090
2263	OIT Data Center Housing	16							188
	per rack per month		12	12	12	12	12	12	72
2264	Server Managed Services	328							3,936
	per Server per month		294	291	288	285	280	280	1,718
2410	Productivity and Collaboration Services	1,952							23,422
	per mailbox per month		1,981	2,083	2,098	2,107	2,135	2,118	12,522

While current utilization reports include important information and they facilitate the annual true up process, they are of limited use to customers. Utilization data is collected from many different OIT service areas and aggregated into a final monthly report. This process takes several days to complete and the report does not include cost information, since initial costs are estimates and final rates will not be determined until the true up after the fiscal year is completed. There is no ability to drill down to any detail behind the summary report. Customers cannot forecast costs, and there is no opportunity for users to customize the information for analysis.

On the other side of common policy administration are the cost allocations, determined after the end-of-year true up. These allocations provide detailed information, however each line in this report is an estimate for a specific service code, and this information cannot be easily presented within the context of customer projects or initiatives. Historical data is included for one year prior, but a static report like

this one is limited when it comes to providing multi- year analyses. Data that agencies might consider superfluous, such as entries for services not used by the agency, are also included in the report. An excerpt is provided below.



Department	Service Codes	Service Names	Utilization Criteria	FY 2017-18			FY 2018-19		
				Utilization	Allocated Rate	Annual Allocation	Utilization	Allocated Rate	Annual Allocation
Agriculture	0	JRC Adjustments	Utilization is defined per adjustments that occurred in the Long Bill.	0.0	\$ -	\$0.00	0.0	\$ -	\$0.00
Agriculture	2104	Mainframe Services	per service unit (in 1,000's)	5,278.0	\$ 0.13	\$711.74	7,102.0	\$ 0.81	\$5,777.00
Agriculture	2110	WF Computing Operations	per defined job scheduled	0.0	\$ 308.44	\$0.00	0.0	\$ 225.89	\$0.00
Agriculture	2151	ADABAS	per service unit (in 1,000's)	0.0	\$ 0.04	\$0.00	0.0	\$ 0.93	\$0.00
Agriculture	2261	OIT-Owned Compute	per Server Instance per month	504.0	\$ 152.22	\$76,716.48	384.0	\$ 141.78	\$54,443.25
Agriculture	2262	OIT-Owned Storage	per TB of Storage per month	204.0	\$ 234.79	\$47,897.46	229.4	\$ 151.94	\$34,862.18
Agriculture	2263	OIT Data Center Housing	per Rack per month	12.0	\$ 1,099.31	\$13,191.69	12.0	\$ 1,098.10	\$13,177.15
Agriculture	2264	Server Managed Services	per Server per month	636.0	\$ 255.70	\$162,623.78	516.0	\$ 243.25	\$125,515.79
Agriculture	2270	FY18 GenTax Hosting DOR	Utilization is defined as participating (1) or not participating (0).	0.0	\$ 2,834,549.00	\$0.00	0.0	\$ 1,416,257.00	\$0.00
Agriculture	2410	Productivity and Collaboration	per mailbox per month.	4,529.0	\$ 6.77	\$30,657.99	4,564.0	\$ 6.21	\$28,334.88
Agriculture	2451	Enterprise Service Desk	per Dept FTE per month.	3,497.0	\$ 16.24	\$56,802.44	3,497.0	\$ 16.80	\$58,763.91
Agriculture	2452	Enterprise Deskside Support	Utilization is defined as per Department FTE per month	3,497.0	\$ 39.00	\$136,375.10	3,497.0	\$ 41.62	\$145,531.22
Agriculture	2453	FY18 Deskside Staffing	Utilization is defined as participating (1) or not participating (0).	10,540.0	\$ 1.00	\$10,540.00	3,497.0	\$ 3.48	\$12,186.79
Agriculture	2460	FY17 R-03 End User Configur	per service unit (in 1,000's)	0.0	\$ 1.00	\$0.00	0.0	\$ -	\$0.00
Agriculture	2630	DBA Services	Utilization is defined as hourly use of staff hours.	1,548.0	\$ 109.15	\$168,957.32	1,548.0	\$ 91.68	\$141,923.04

The firm recommended that the Office simplify its billing process by limiting the number of service categories reported on, maintaining year-to-year consistency in the service categories, and modifying its reports to state agencies by using less technical language and more year-over-year service consumption and service cost data.

The Office also report that current reporting forces OIT budget staff spend significant amounts of time meeting with customers to discuss OIT billing and utilization reports. Budget staff dialog for hours with IT Service Owners, IT Directors, and department staff only to achieve a basic understanding of the billing process and rate methodology. To address these challenges holistically, OIT requires new tools to improve customers' experience and understanding of their IT service utilization and expenditures.

This request would fund two improvements. The first is requested to improve communication and relationship management between OIT and user-agencies, licenses and associated implementation costs of a Customer Relationship Management software platform. The second would be implementation of IT-specific finance tools to provide enhanced reporting options and cost modeling, financial planning, and customer billing.

R7 INFORMATION TECHNOLOGY SERVICE AND SUPPORT MANAGEMENT

The IT Service Management (ITSM) Ecosystem is intended to be a set of cohesive and integrated tools necessary to efficiently and consistently deliver technology support and services to state department programs. The initial drive for the ITSM ecosystem was to create a single repository for data to allow the ability to quickly respond to requests. This included using a suite of tools to provide a seamless integration of data. This integrated architecture was to allow for OIT to implement automation to reduce manual inefficiencies.

OIT submitted a decision item and received \$3,455,000 in initial funding in FY 2014-15 to implement an "IT Service Management (ITSM) Ecosystem." This initiative focused resources to implement the full IT Service Management suite of tools to address several issues. First, the previous system's components did not properly communicate, creating a disjointed interface with redundant manual entry and excessive searching for the correct information. This laborious process frustrated customers

and OIT support staff. Second, there was no single repository for data. This caused OIT support to have to search in multiple places for information, delaying responses to customer requests. Multiple data sources also created an inability for users to generate reports quickly or automatically. Lastly, OIT's purchase catalog was not automated and did not link with other systems resulting in clunky deployment and tedious tracking of services ordered.

From the FY 2014-15 decision item, OIT received \$345,000 annually for ongoing ITSM maintenance and licensing, this is in addition to the original \$381,000 budget. Although the \$726,000 is sufficient for necessary updates to existing platforms, it does not provide the resources needed to support OIT's ITSM suite to the next generation of functionality. As the system and program have matured, there is a need to further optimize and enhance the services available, provide stronger security (active directory and single sign-on capabilities) and seamlessly integrate with other systems (Demand and Resource management, Project and Portfolio Management, vendor ticketing systems, and Financial Systems).

The Office seeks to implement new tools available in the commercial marketplace that will focus more on customer experience and the application and less on infrastructure by moving from on-premise to a cloud-based platform. Cloud-based applications, such as pre-built Software-as-a-Service Applications (SaaS), have a wide variety of use cases, and allow for ease of configuration, and enhancements with no or minimal coding knowledge.

The Office anticipates that implementation of the ITSM suite will increase customer satisfaction by providing more tools to solve issues encountered by program staff without requiring direct assistance from OIT staff and to improve the continuity of the customer experience with tools to attend to open work orders.

R11 OIT LONG BILL REORGANIZATION

Also included in the Office's request is to restructure its Long Bill lines and complete an internal transfer of 5.0 FTE in order to reduce unnecessary complexity, allow for long term trend analysis of major spending categories, increase flexibility needed to support efficient IT service delivery for departments, and align certain FTE in the Long Bill with their current job function. This request is a technical change that does not require any additional funding or FTE. The request is to consolidate the Office's 23 line items, which are split between 6 subdivisions, into 7 line items in 6 more generally named subdivisions. The Office provided a visualization of how the reorganization would compare to the current Long Bill structure.

Table 2. Crosswalk of Current vs. Proposed Long Bill Appropriations

Current (per FY20 Long Bill)				Proposed			
Long Bill Group	Appropriation	FTE	Amount	Long Bill Group	Appropriation	FTE	Amount
A	Central Administration	97.5	\$13,534,226	A	Central Administration	96.5	\$13,637,088
A	Project Management	53.0	\$7,964,132	A	Centrally Appropriated	-	\$36,433,081
A	Centrally Appropriated	-	\$36,433,081	B	Enterprise Solutions (Including Applications and Infrastructure Operations)	526.0	\$115,719,095
B	Infrastructure Administration	31.5	\$6,822,742	C	DTRS/Public Safety Network	54.0	\$24,844,185
B	Data Center Services	8.0	\$822,021	D	Information Security	8.0	\$19,819,854
B	Mainframe Services	31.0	\$4,454,265	E	CBMS	49.5	\$66,516,882
B	Server Management	85.5	\$23,858,358	F	Customer Service/Support	270.0	\$27,169,954
C	Network Administration	5.0	\$4,043,588				
C	Colorado State Network Core	37.0	\$7,538,977				
C	Colorado State Network Circuits	-	\$7,080,410				
C	Voice and Data Services	12.0	\$13,699,921				
C	Public Safety Network	54.0	\$24,844,185				
D	Security Administration	3.0	\$412,886				
D	Security Governance	6.0	\$7,151,449				
D	Security Operations	44.0	\$12,490,924				
E	Administration	17.0	\$5,908,993				
E	Shared Services	112.0	\$16,718,087				
E	Agency Services	189.0	\$27,517,097				
E	Management System	49.5	\$66,516,882				
F	End User Administration	2.0	\$333,509				
F	Service Desk Services	48.0	\$4,090,379				
F	Services	116.0	\$9,949,347				
F	Email Services	3.0	\$1,954,680				
	TOTAL	1,004.0	\$304,140,139		TOTAL	1,004.0	\$304,140,139

JBC staff notes that the numbers pages included in this document do not include the changes requested by the Office. Current common policy allocations are built using the Long Bill structure that is in place. Making the change after appropriation figures are computed for current line items will reduce the complexity of the calculations required to make the change requested.

As described by the Office, the current Long Bill appropriations do not align directly with broad service categories that are meaningful to customers, with OIT’s leadership structure. Several of the current appropriations fall under the purview of multiple executive leadership team members, and vice versa. A lack of resource flexibility, from a management perspective, leads to a diminished capacity to meet customer demand.

Several key findings made by the consultant highlighted the need for clearer OIT billing practices and financial tracking that could show customers and outside stakeholders a clear trend of spending in major service groups. The Office believes the proposed structure would improve customer satisfaction and aid in the evaluation of IT benefits over the long term.

The request also explains that the detailed appropriation structure in place increases its difficulty in communicating to customers cost trends in service areas or what services have been added or eliminated without broader categories that remain unchanged.

While this new structure simplifies the Long Bill, the opportunity for detailed analysis will not be lost. Stakeholders that have an interest in analyzing detailed OIT operations will have the ability to do this via OIT’s annual Common Policy Service reporting. OIT will continue to report on the individual service offerings within these Long Bill categories, such as Applications Development, Compute, Storage, etc. This reporting includes detailed cost estimates for each service, tracks changes in these

estimates year-over-year, and provides actual cost and utilization detail for each service in the reporting for the Common Policy True Up.

ISSUE: R1 (OIT) COLORADO DIGITAL SERVICES

After the state experienced delays or outright stalled implementation of IT systems that required large capital outlays, the Department requested and the Committee approved an interim supplemental request to fund Colorado Digital Services, a small group of term-limited IT professional hired by the state primarily from the private sector to put projects back on the path to success.

SUMMARY

- The State conducted a pilot program with Colorado Digital Services in the spring of 2019. The goal of the pilot project was to determine a way to salvage implementation of the HRWork IT system. After the Administration received this guidance through a one-time grant, it requested emergency supplemental funding during the legislative interim to fund Colorado Digital Services continued work on HRWorks.
- The Office of Information Technology desires to make Colorado Digital Services a permanent feature of its Office. The Office plans to direct members of the Digital Services team to IT projects or systems as a tactical IT resource to provide private-sector innovation to career state employees with program expertise.
- Funding approved during the September 2019 JBC meeting will be discussed by JBC staff during the January supplemental budget cycle before it is included in the 2020 supplemental bill for the Governor's Office.

RECOMMENDATION

JBC staff recommends the Committee ask the Office of Information Technology to provide an update on Colorado Digital Services at the JBC hearing to prepare for the supplemental budget cycle. During the supplemental budget cycle, JBC staff will make a recommendation to incorporate the approved interim supplemental into the supplemental bill or to divert some of the remaining appropriation allocated to HRWorks to fund Colorado Digital Services in the first year.

DISCUSSION

The Colorado Digital Service enriches Colorado's technology ecosystem by providing a pipeline of "digital service experts" focused on solving problems and building citizen-facing technology services benefitting Coloradans. Digital Service engineers, designers and product managers are term limited state employees collaborating with Colorado's career state employees to participate in procurement and other sensitive discussions. The Digital Service focuses their efforts on high impact, citizen-facing services and modernization priorities. The "digital tour of duty" hiring model provides an avenue for the best tech talent in Colorado to serve the State for a one to two year term-limited period enriching the existing OIT and agency teams.

OIT's Chief Information Officer, in consultation and collaboration with the Governor's Office, direct the team on what projects and issues require their support. The team focuses on large and complex IT projects, projects that are struggling to move forward, and state programs needing a new IT

solution. The amount of time and number of projects the Digital Service team tackles will depend on the demand for their services and the complexity of the problem or project they are addressing.

The Digital Service benefits the State in many ways. It combines the best private sector design, engineering and product management talent that understands how to design, build and deliver digital services with the best government talent that has the policy knowledge, deep subject matter expertise and understanding to navigate bureaucracy. The Digital Services program also brings great engineers to the table alongside state agency teams to assist with the procurement process and technology decisions. The team participates in technical evaluation panels for procurements and vendor evaluation processes like prototypes and code reviews to evaluate expertise. Lastly, the Digital Services team can help tell the story of digital service to the public, transforming their vision of how the State serves Coloradans. Digital Services is a resource to direct toward OIT's most important, biggest challenges.

OIT anticipates that Digital Services will not only improve the experience that Coloradans have when interfacing with various government services, but will also grow the knowledge and talent of the State's workforce. The Digital Service provides valuable support to existing projects that are burdened with unforeseen obstacles by addressing the issues and getting the project back on track to save the State time and money. Based on similar results at the federal level, OIT also anticipates the Digital Service team will deliver cost reduction, cost avoidance and innovation to the State and all Coloradans.

The Digital Service team will deliver a substantial return on investment for the state with a small team of top talent working within OIT. The impact of such programs on the federal level and in other countries has been quantified in many ways - from labor hours saved, net promoter score as a proxy for citizen-satisfaction, and cost avoidance. For example, the US Digital Service laid the groundwork for the VA cloud strategy which could potentially save an estimated \$100 million over the next 10 years. The US Digital Services also streamlined the VA Appeals process leading to a 40% decrease in claims with mismatched documents and labor years redirected annually. If funding is not awarded, OIT will not be able to continue this initiative for the Governor. The State will continue to move forward with IT initiatives, but without the benefit of private sector expertise and insight to advance and streamline solutions. The State will have to work through barriers in the traditional sense, potentially costing time and additional taxpayer dollars to address.

The Office identified the IT Manager position from the state classified system as the appropriate position to fill the 7.0 FTE requested by the Office. The position has an annual salary of about \$135,000.

ISSUE: R2 (OEDIT) SMALL BUSINESS DEVELOPMENT CENTERS

The Office of Economic Development and International Trade currently operates 15 Small Business Development Centers throughout the state. While Centers in urban or semi-urban locations along the front range have access to numerous partners to leverage state and federal funds for additional contributions from the private sector or local economic development organizations, those located elsewhere find Center Directors spending more time fund raising for the Office than coordinating Center activities.

SUMMARY

- The Office of Economic Development and International Trade is appropriated \$1.3 million for FY 2019-20, comprised of \$94,144 General Fund and \$1.2 million from federal funds. The Department requests an increase of \$140,000 General Fund for FY 2020-21 to enhance opportunities to support small business in rural parts of the state through its established Small Business Development Centers.
- The additional funding *may* allow the Office to access additional federal funds, however, those funds are not guaranteed. The additional funding will primarily allow rural Centers to focus its staff efforts toward developing programs it specializes in offering and reduce the amount of time staff is fund raising to operate year-round. Additional federal funds become available toward the end of the federal fiscal year but often require quick action by state Small Business Development Centers and the ability to prove matching state funds for the project.
- The Office estimates this additional General Fund appropriation will increase the activity and outcomes of programs run by rural Centers by about ten percent. Detailed data of recent activity and anticipated outcomes is provided in the body of this issue.

RECOMMENDATION

Staff recommends the Committee review the anticipated outcomes estimated by the Office of Economic Development and International Trade provided at the end of this issue and whether the increased output justifies additional General Fund. The Committee should also discuss with OEDIT its position on including a Long Bill footnote attached to this funding, if approved, to dedicate it to operating *rural* Small Business Development Centers or through implementation of a new line item.

DISCUSSION

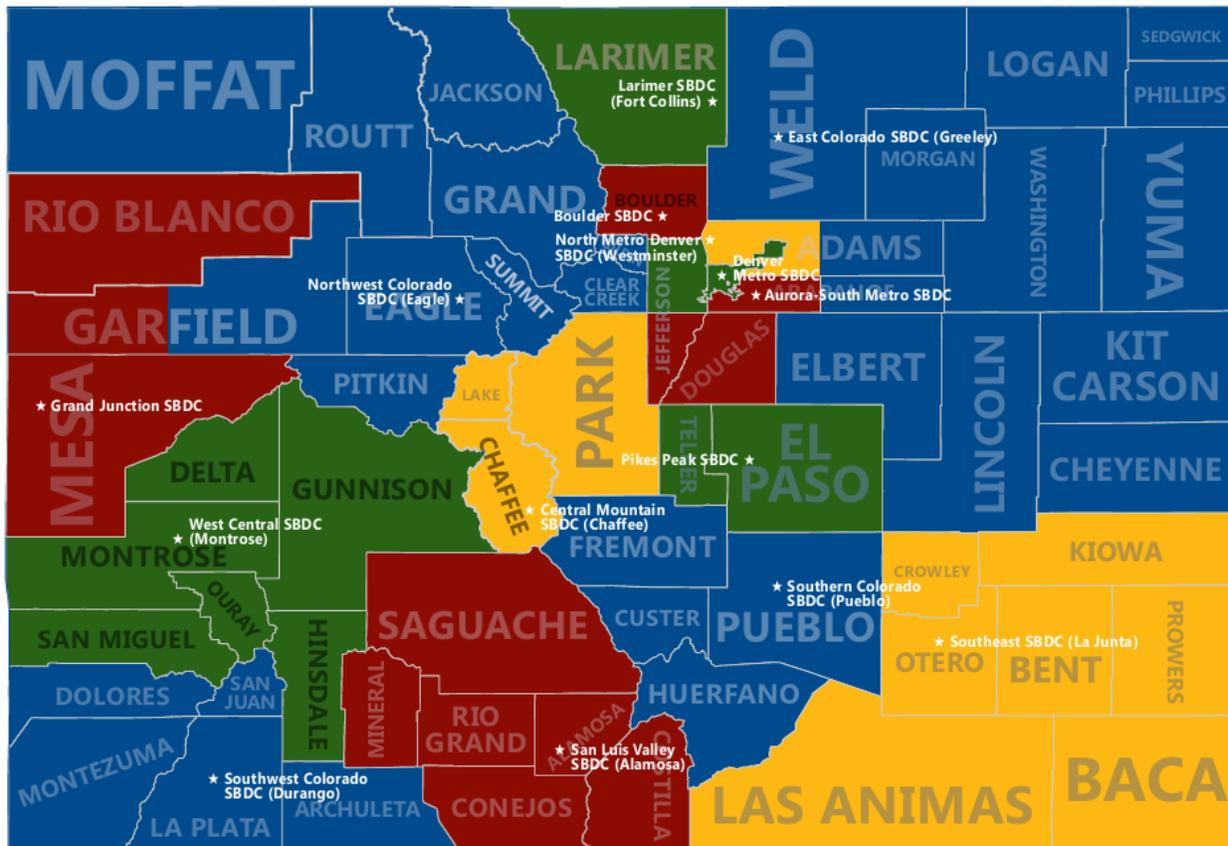
The Office of Economic Development & International Trade (OEDIT) is requesting a \$140,000 ongoing increase in General Fund support for the Small Business Development Centers line item (24-48.5-102, C.R.S.). Centers provide a variety of training and support services to aspiring entrepreneurs and small businesses across the state. The Office believes the funding will enhance the business support and technical assistance provided by Colorado's SBDCs in rural Colorado, consistent with OEDIT's goal to enhance rural economic development. OSPB ranks this program at Step 3 on the evidence continuum.

The Colorado SBDC Network includes 15 full-time centers across the state that provide technical assistance to small business owners and aspiring entrepreneurs in the form of free one-on-one business consulting and low-cost training courses. SBDC business consultants complete a certification training before assisting small businesses and all consultants are supervised by OEDIT. The following map identifies that location of each Center and the counties served by it.



COLORADO SMALL BUSINESS DEVELOPMENT CENTER LOCATIONS

www.coloradosbdc.org | 303-892-3840 | info@coloradosbdc.org



★ Full-Time SBDC Center (consulting and training)

The Colorado SBDC Network is funded by federal dollars from the U.S. Small Business Administration, as well as a required cash match solicited from partner institutions (e.g. incubators, chambers of commerce, private enterprises), the education sector (e.g. universities and community colleges), and local governments. The Business Support Division of OEDIT currently receives \$94,144 annually in General Fund support from the State for the Colorado SBDC Network via the Small Business Development Center line item.

The Colorado SBDC Network includes eight centers in rural communities. However, while the Centers along the Front Range receive financial support from the local chambers of commerce, higher education institutions, and local governments for match funding, the rural SBDCs often lack a similar level of funds. Colorado’s rural SBDCs currently operate at a deficit, relying more heavily on funds

provided by the federal grant, with more limited match funding provided by local partners. The result is less support provided by rural centers in the form of fewer training courses and consulting hours to rural businesses, which may result in fewer businesses formed and fewer jobs created.

RECENT ACTIVITY ATTRIBUTABLE TO SMALL BUSINESS DEVELOPMENT CENTERS						
		FY 2014-15	FY 2015-16	FY 2016-17	FY 2017- 18	FY 2018-19
No. Of Training Course Attendees	Statewide	12,863	12,797	12,325	13,758	14,044
	Rural Only	1,321	964	681	941	736
No. of Clients Consulted 1 on 1	Statewide	5,913	6,232	6,218	6,642	6,594
	Rural Only	1,177	1,485	1,086	1,205	1,018
No. of Business Starts	Statewide	263	379	352	284	322
	Rural Only	48	52	51	27	39
No. of Jobs Created	Statewide	1,431	2,194	2,882	2,358	2,385
	Rural Only	219	265	208	155	148
No. Of Jobs Retained	Statewide	3,006	2,973	2,095	2,574	3,413
	Rural Only	191	223	244	106	269
Capital Formation	Statewide	\$89,699,825	\$213,482,369	\$79,362,377	\$83,905,382	\$134,053,029
	Rural Only	\$9,188,848	\$9,917,979	\$3,807,571	\$11,899,581	\$8,598,376
Increase in Sales	Statewide	\$53,280,478	\$97,025,467	\$98,541,189	\$103,021,136	\$178,876,079
	Rural Only	\$5,103,780	\$3,536,192	\$4,102,303	\$7,608,213	\$3,998,710

As demonstrated by the data above, while the volume of rural Centers represent more than half of all the centers, their activity is a mere fraction of total activity. The above information on the impact of Centers in the form of output and outcome metrics is collected from small business owners who indicate those outcomes are directly attributable to the assistance provided by the SBDC Network. All metrics gathered are provided by business owners that work with Centers voluntarily and therefore is not an entirely complete picture. These metrics are tracked within the Colorado SBDC Network client database, and verified by a neutral third-party contractor to ensure accuracy. In addition to strict guidelines on how these metrics are collected, each SBDC Network in the nation undergoes an intensive accreditation process every five years, conducted by the Association of Small Business Development Centers, to ensure the high quality of each State's program. Because SBDCs collect this data on program outputs and client outcomes, OSPB ranks this program at Step 3 on the evidence continuum.

These additional funds will enable rural Centers to increase the amount of business consulting and training provided to small businesses in every corner of the State. OEDIT estimates the following increase in outputs annually at rural SBDCs as a result of the requested increase in funding:

- 414 additional 1 on 1 consulting hours;
- 5 additional business starts;
- 23 new jobs created;
- An increase of \$1,537,346 of capital formation; and
- Increased sales of \$840,519.

The above estimate of increased outputs and outcomes was calculated by taking the average client impact over time. On average, the Center pays business consultants at a rate of \$35-\$50/hour and course facilitators at a rate of \$100-\$200/hour. Assuming the funds go directly to technical assistance and taking into account the average return on investment of SBDC trainings, consulting, and programming provides the above estimates. Figures reported for rural SBDC's include the San Luis

Valley, Southern, East, Southeast, Northwest, West Central, and Southwest centers. These numbers exclude the Grand Junction Center.

Appendix A: Numbers Pages

	FY 2017-18 Actual	FY 2018-19 Actual	FY 2019-20 Appropriation	FY 2020-21 Request	Request vs. Appropriation
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GOVERNOR - LIEUTENANT GOVERNOR - STATE PLANNING AND BUDGETING

Jared Polis, Governor

(1) OFFICE OF THE GOVERNOR

Includes the core functions of a traditional executive director's office and the Colorado Energy Office.

(A) Governor's Office

Administration of Governor's Office and Residence	<u>2,458,512</u>	<u>3,659,689</u>	<u>4,063,636</u>	<u>4,163,636</u> *
FTE	0.0	35.8	34.9	34.9
General Fund	2,361,136	3,164,246	3,515,720	3,615,720
Cash Funds	97,376	65,070	106,912	106,912
Reappropriated Funds	0	430,373	441,004	441,004
Federal Funds	0	0	0	0
Discretionary Fund	<u>19,500</u>	<u>19,500</u>	<u>19,500</u>	<u>19,500</u>
General Fund	19,500	19,500	19,500	19,500
Cash Funds	0	0	0	0
Reappropriated Funds	0	0	0	0
Federal Funds	0	0	0	0
Mansion Activity Fund	<u>220,000</u>	<u>205,337</u>	<u>238,266</u>	<u>238,266</u>
General Fund	0	0	0	0
Cash Funds	220,000	205,337	238,266	238,266
Reappropriated Funds	0	0	0	0
Federal Funds	0	0	0	0

* Indicates this line item includes a FY 2020-21 budget request

Appendix A: Numbers Pages

	FY 2017-18 Actual	FY 2018-19 Actual	FY 2019-20 Appropriation	FY 2020-21 Request	Request vs. Appropriation
SUBTOTAL - (A) Governor's Office	2,698,012	3,884,526	4,321,402	4,421,402	2.3%
<i>FTE</i>	<u>0.0</u>	<u>35.8</u>	<u>34.9</u>	<u>34.9</u>	0.0%
General Fund	2,380,636	3,183,746	3,535,220	3,635,220	2.8%
Cash Funds	317,376	270,407	345,178	345,178	0.0%
Reappropriated Funds	0	430,373	441,004	441,004	0.0%
Federal Funds	0	0	0	0	0.0%

(B) Special Purpose

Health, Life, and Dental	<u>756,421</u>	<u>1,244,898</u>	<u>1,583,185</u>	<u>1,504,137</u>
General Fund	321,822	624,179	818,536	846,614
Cash Funds	9,027	192,439	422,074	347,069
Reappropriated Funds	425,572	214,043	139,287	222,275
Federal Funds	0	214,237	203,288	88,179
Short-term Disability	<u>14,077</u>	<u>21,185</u>	<u>24,160</u>	<u>21,024</u>
General Fund	10,606	10,639	11,977	13,328
Cash Funds	167	3,038	6,752	3,700
Reappropriated Funds	3,304	4,689	2,673	3,106
Federal Funds	0	2,819	2,758	890
S.B. 04-257 Amortization Equalization Disbursement	<u>371,409</u>	<u>632,711</u>	<u>718,726</u>	<u>662,963</u>
General Fund	287,400	321,282	356,323	420,281
Cash Funds	4,403	84,720	200,886	116,675
Reappropriated Funds	79,606	141,590	79,494	97,950
Federal Funds	0	85,119	82,023	28,057

* Indicates this line item includes a FY 2020-21 budget request

Appendix A: Numbers Pages

	FY 2017-18 Actual	FY 2018-19 Actual	FY 2019-20 Appropriation	FY 2020-21 Request	Request vs. Appropriation
S.B. 06-235 Supplemental Amortization Equalization					
Disbursement	<u>371,409</u>	<u>632,818</u>	<u>718,726</u>	<u>662,963</u>	
General Fund	287,400	321,282	356,323	420,281	
Cash Funds	4,403	84,827	200,886	116,675	
Reappropriated Funds	79,606	141,590	79,494	97,950	
Federal Funds	0	85,119	82,023	28,057	
PERA Direct Distribution	<u>0</u>	<u>0</u>	<u>395,560</u>	<u>371,673</u>	
General Fund	0	0	196,097	235,620	
Cash Funds	0	0	110,549	65,411	
Reappropriated Funds	0	0	43,761	54,913	
Federal Funds	0	0	45,153	15,729	
Salary Survey	<u>141,661</u>	<u>632,818</u>	<u>468,178</u>	<u>856,110</u>	
General Fund	109,501	321,282	232,098	457,887	
Cash Funds	1,823	84,827	130,844	194,424	
Reappropriated Funds	30,337	141,590	51,794	104,273	
Federal Funds	0	85,119	53,442	99,526	
Workers' Compensation	<u>72,454</u>	<u>56,125</u>	<u>47,029</u>	<u>34,200</u>	
General Fund	59,061	39,647	33,222	24,242	
Cash Funds	0	0	0	0	
Reappropriated Funds	13,393	16,478	13,807	9,958	
Federal Funds	0	0	0	0	

* Indicates this line item includes a FY 2020-21 budget request

Appendix A: Numbers Pages

	FY 2017-18 Actual	FY 2018-19 Actual	FY 2019-20 Appropriation	FY 2020-21 Request	Request vs. Appropriation
Legal Services	<u>492,414</u>	<u>308,832</u>	<u>48,959</u>	<u>115,844</u>	
General Fund	356,244	171,647	24,480	57,923	
Cash Funds	0	0	0	0	
Reappropriated Funds	136,170	137,185	24,479	57,921	
Federal Funds	0	0	0	0	
Payment to Risk Management and Property Funds	<u>131,105</u>	<u>127,315</u>	<u>140,756</u>	<u>196,836</u>	
General Fund	123,038	116,287	70,378	98,418	
Cash Funds	0	0	0	0	
Reappropriated Funds	8,067	11,028	70,378	98,418	
Federal Funds	0	0	0	0	
Capitol Complex Leased Space	<u>395,375</u>	<u>363,953</u>	<u>326,172</u>	<u>343,678</u>	
General Fund	328,168	262,357	158,553	171,839	
Cash Funds	0	0	0	0	
Reappropriated Funds	67,207	101,596	167,619	171,839	
Federal Funds	0	0	0	0	
Payments to OIT	<u>274,446</u>	<u>62,586</u>	<u>0</u>	<u>1,028,494</u> *	
General Fund	270,969	62,586	0	1,028,494	
Cash Funds	0	0	0	0	
Reappropriated Funds	3,477	0	0	0	
Federal Funds	0	0	0	0	
CORE Operations	<u>72,113</u>	<u>79,336</u>	<u>82,875</u>	<u>102,205</u>	
General Fund	37,452	0	0	0	
Cash Funds	24,502	14,479	13,394	16,487	
Reappropriated Funds	10,159	64,857	56,517	69,661	
Federal Funds	0	0	12,964	16,057	

* Indicates this line item includes a FY 2020-21 budget request

Appendix A: Numbers Pages

	FY 2017-18 Actual	FY 2018-19 Actual	FY 2019-20 Appropriation	FY 2020-21 Request	Request vs. Appropriation
Indirect Cost Assessment	<u>0</u>	<u>7,978</u>	<u>7,978</u>	<u>7,933</u>	
Cash Funds	0	7,978	7,978	7,933	
Merit Pay	<u>61,873</u>	<u>0</u>	<u>0</u>	<u>0</u>	
General Fund	48,403	0	0	0	
Cash Funds	0	0	0	0	
Reappropriated Funds	13,470	0	0	0	
Federal Funds	0	0	0	0	
Paid Parental Leave	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	
General Fund	0	0	0	0	
Vehicle Lease Payments	<u>3,171</u>	<u>0</u>	<u>0</u>	<u>0</u>	
General Fund	3,171	0	0	0	
Cash Funds	0	0	0	0	
Reappropriated Funds	0	0	0	0	
Federal Funds	0	0	0	0	
SUBTOTAL - (B) Special Purpose	3,157,928	4,170,555	4,562,304	5,908,060	29.5%
<i>FTE</i>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	0.0%
General Fund	2,243,235	2,251,188	2,257,987	3,774,927	67.2%
Cash Funds	44,325	472,308	1,093,363	868,374	(20.6%)
Reappropriated Funds	870,368	974,646	729,303	988,264	35.5%
Federal Funds	0	472,413	481,651	276,495	(42.6%)

* Indicates this line item includes a FY 2020-21 budget request

Appendix A: Numbers Pages

	FY 2017-18 Actual	FY 2018-19 Actual	FY 2019-20 Appropriation	FY 2020-21 Request	Request vs. Appropriation
(C) Colorado Energy Office					
Program Administration	<u>11,169,288</u>	<u>12,292,869</u>	<u>6,522,356</u>	<u>6,522,356</u>	
FTE	25.1	26.1	24.8	24.8	
General Fund	17,647	3,010,670	2,890,670	2,890,670	
Cash Funds	4,804,232	2,278,212	0	0	
Reappropriated Funds	0	0	0	0	
Federal Funds	6,347,409	7,003,987	3,631,686	3,631,686	
Low-Income Energy Assistance	<u>1,236,538</u>	<u>246,960</u>	<u>6,500,000</u>	<u>6,500,000</u>	
FTE	0.0	0.0	0.0	0.0	
General Fund	0	0	0	0	
Cash Funds	1,236,538	246,960	6,500,000	6,500,000	
Reappropriated Funds	0	0	0	0	
Federal Funds	0	0	0	0	
Electric Vehicle Charging Station Grants	<u>174,052</u>	<u>236,585</u>	<u>1,036,204</u>	<u>1,036,204</u>	
Cash Funds	174,052	236,585	1,036,204	1,036,204	
Legal Services	<u>77,299</u>	<u>92,160</u>	<u>195,894</u>	<u>339,853</u> *	
General Fund	77,299	92,160	143,516	287,475	
Cash Funds	0	0	0	0	
Reappropriated Funds	0	0	0	0	
Federal Funds	0	0	52,378	52,378	

* Indicates this line item includes a FY 2020-21 budget request

Appendix A: Numbers Pages

	FY 2017-18 Actual	FY 2018-19 Actual	FY 2019-20 Appropriation	FY 2020-21 Request	Request vs. Appropriation
Vehicle Lease Payments	<u>0</u>	<u>3,212</u>	<u>3,036</u>	<u>8,237</u>	
General Fund	0	3,212	3,036	8,237	
Cash Funds	0	0	0	0	
Reappropriated Funds	0	0	0	0	
Federal Funds	0	0	0	0	
Leased Space	<u>0</u>	<u>201,645</u>	<u>229,801</u>	<u>229,801</u> *	
General Fund	0	201,645	229,801	229,801	
Cash Funds	0	0	0	0	
Reappropriated Funds	0	0	0	0	
Federal Funds	0	0	0	0	
Indirect Cost Assessment	<u>0</u>	<u>155,460</u>	<u>183,561</u>	<u>182,311</u>	
Federal Funds	0	155,460	183,561	182,311	
SUBTOTAL - (C) Colorado Energy Office	12,657,177	13,228,891	14,670,852	14,818,762	1.0%
<i>FTE</i>	<u>25.1</u>	<u>26.1</u>	<u>24.8</u>	<u>24.8</u>	0.0%
General Fund	94,946	3,307,687	3,267,023	3,416,183	4.6%
Cash Funds	6,214,822	2,761,757	7,536,204	7,536,204	0.0%
Reappropriated Funds	0	0	0	0	0.0%
Federal Funds	6,347,409	7,159,447	3,867,625	3,866,375	(0.0%)

* Indicates this line item includes a FY 2020-21 budget request

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	FY 2017-18 Actual	FY 2018-19 Actual	FY 2019-20 Appropriation	FY 2020-21 Request	Request vs. Appropriation
(D) Other Programs and Grants					
Disabled Parking Education	212,200	0	0		
FTE	0.0	0.0	0.0		
General Fund	212,200	0	0		
Cash Funds	0	0	0		
Reappropriated Funds	0	0	0		
Federal Funds	0	0	0		
SUBTOTAL - (D) Other Programs and Grants	212,200	0	0	0.0%	
FTE	0.0	0.0	0.0	0.0%	
General Fund	212,200	0	0	0.0%	
Cash Funds	0	0	0	0.0%	
Reappropriated Funds	0	0	0	0.0%	
Federal Funds	0	0	0	0.0%	
TOTAL - (1) Office of the Governor	18,725,317	21,283,972	23,554,558	25,148,224	6.8%
FTE	25.1	61.9	59.7	59.7	0.0%
General Fund	4,931,017	8,742,621	9,060,230	10,826,330	19.5%
Cash Funds	6,576,523	3,504,472	8,974,745	8,749,756	(2.5%)
Reappropriated Funds	870,368	1,405,019	1,170,307	1,429,268	22.1%
Federal Funds	6,347,409	7,631,860	4,349,276	4,142,870	(4.7%)

* Indicates this line item includes a FY 2020-21 budget request

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	FY 2017-18 Actual	FY 2018-19 Actual	FY 2019-20 Appropriation	FY 2020-21 Request	Request vs. Appropriation
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(2) OFFICE OF THE LIEUTENANT GOVERNOR

The Office of the Lieutenant Governor directly oversees the Colorado Commission of Indian Affairs, Commission on Community Service, and other initiatives. The Lieutenant Governor temporarily takes the Governor's place if the Governor is out of Colorado or is unable to perform his/her duties.

Administration	<u>348,605</u>	<u>573,546</u>	<u>494,781</u>	<u>394,781</u> *
FTE	0.0	3.3	4.0	4.0
General Fund	348,605	573,546	494,781	394,781
Cash Funds	0	0	0	0
Reappropriated Funds	0	0	0	0
Federal Funds	0	0	0	0
Discretionary Fund	<u>2,875</u>	<u>0</u>	<u>2,875</u>	<u>2,875</u>
General Fund	2,875	0	2,875	2,875
Cash Funds	0	0	0	0
Reappropriated Funds	0	0	0	0
Federal Funds	0	0	0	0
Commission of Indian Affairs	<u>96,048</u>	<u>149,709</u>	<u>244,291</u>	<u>244,291</u>
FTE	3.2	1.3	3.0	3.0
General Fund	96,048	149,709	243,107	243,107
Cash Funds	0	0	1,184	1,184
Reappropriated Funds	0	0	0	0
Federal Funds	0	0	0	0
Commission on Community Service	<u>0</u>	<u>0 3.8</u>	<u>200,000</u>	<u>200,000</u>
General Fund	0	0	200,000	200,000
Cash Funds	0	0	0	0
Reappropriated Funds	0	0	0	0
Federal Funds	0	0	0	0

* Indicates this line item includes a FY 2020-21 budget request

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	FY 2017-18 Actual	FY 2018-19 Actual	FY 2019-20 Appropriation	FY 2020-21 Request	Request vs. Appropriation
SIM Office Extension	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	
FTE	0.0	0.0	0.0	0.0	
General Fund	0	0	0	0	
Office of eHealth Innovation	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	
FTE	0.0	0.0	0.0	0.0	
Reappropriated Funds	0	0	0	0	
Office of Saving People Money on Healthcare	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	
FTE	0.0	0.0	0.0	0.0	
General Fund	0	0	0	0	
TOTAL - (2) Office of the Lieutenant Governor	447,528	723,255	941,947	841,947	(10.6%)
<i>FTE</i>	<u>3.2</u>	<u>8.4</u>	<u>7.0</u>	<u>7.0</u>	0.0%
General Fund	447,528	723,255	940,763	840,763	(10.6%)
Cash Funds	0	0	1,184	1,184	0.0%
Reappropriated Funds	0	0	0	0	0.0%
Federal Funds	0	0	0	0	0.0%

* Indicates this line item includes a FY 2020-21 budget request

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	FY 2017-18 Actual	FY 2018-19 Actual	FY 2019-20 Appropriation	FY 2020-21 Request	Request vs. Appropriation
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(3) OFFICE OF STATE PLANNING AND BUDGETING

The Office of State Planning and Budgeting (OSPB) develops executive branch budget requests, reviews and analyzes departmental expenditures, and prepares quarterly revenue and economic estimates for the state. Additionally, the Office implements the Results First initiative, a cost benefit analysis model initially developed by the Washington State Institute for Public Policy, and now supported by the Pew-MacArthur Results First initiative, that aims to determine the monetary value of State policies and programs.

Personal Services	<u>2,513,790</u>	<u>2,085,757</u>	<u>2,845,409</u>	<u>2,845,409</u>
FTE	19.8	19.1	21.4	21.4
General Fund	1,055,000	847,423	1,205,236	1,205,236
Cash Funds	0	0	0	0
Reappropriated Funds	1,458,790	1,238,334	1,640,173	1,640,173
Federal Funds	0	0	0	0
Operating Expenses	<u>61,807</u>	<u>55,205</u>	<u>61,844</u>	<u>61,844</u>
General Fund	10,900	10,900	10,900	10,900
Cash Funds	0	0	0	0
Reappropriated Funds	50,907	44,305	50,944	50,944
Federal Funds	0	0	0	0
Economic Forecasting Subscriptions	<u>6,804</u>	<u>11,386</u>	<u>16,362</u>	<u>16,362</u>
General Fund	0	0	0	0
Cash Funds	0	0	0	0
Reappropriated Funds	6,804	11,386	16,362	16,362
Federal Funds	0	0	0	0

* Indicates this line item includes a FY 2020-21 budget request

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	FY 2017-18 Actual	FY 2018-19 Actual	FY 2019-20 Appropriation	FY 2020-21 Request	Request vs. Appropriation
Evidence-based Policymaking Evaluation and Support	<u>323,579</u>	<u>1,101,804</u>	<u>2,308,439</u>	<u>2,308,439</u>	
General Fund	0	0	0	0	
Cash Funds	323,579	1,101,804	2,308,439	2,308,439	
Reappropriated Funds	0	0	0	0	
Federal Funds	0	0	0	0	
TOTAL - (3) Office of State Planning and Budgeting	2,905,980	3,254,152	5,232,054	5,232,054	0.0%
<i>FTE</i>	<u>19.8</u>	<u>19.1</u>	<u>21.4</u>	<u>21.4</u>	<u>0.0%</u>
General Fund	1,065,900	858,323	1,216,136	1,216,136	0.0%
Cash Funds	323,579	1,101,804	2,308,439	2,308,439	0.0%
Reappropriated Funds	1,516,501	1,294,025	1,707,479	1,707,479	0.0%
Federal Funds	0	0	0	0	0.0%

* Indicates this line item includes a FY 2020-21 budget request

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	FY 2017-18 Actual	FY 2018-19 Actual	FY 2019-20 Appropriation	FY 2020-21 Request	Request vs. Appropriation
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(4) ECONOMIC DEVELOPMENT PROGRAMS

The Office of Economic Development and International Trade (OEDIT) assists in strengthening Colorado's prospects for long-term economic growth by providing broad-based support to businesses. The Office's support services include business funding and incentives, promotion of creative industries, international trade assistance, tourism promotion, minority business assistance, key industry promotion (including advanced industries, aerospace, and health and wellness), and film, television, and media industry development.

Administration	<u>645,555</u>	<u>694,582</u>	<u>783,999</u>	<u>779,414</u> *
FTE	11.6	6.0	6.0	6.0
General Fund	645,555	689,997	779,414	779,414
Cash Funds	0	2,435	2,435	0
Reappropriated Funds	0	0	0	0
Federal Funds	0	2,150	2,150	0
Vehicle Lease Payments	<u>11,256</u>	<u>12,006</u>	<u>12,042</u>	<u>19,044</u> *
General Fund	11,256	12,006	12,042	19,044
Cash Funds	0	0	0	0
Reappropriated Funds	0	0	0	0
Federal Funds	0	0	0	0
Leased Space	<u>346,525</u>	<u>272,733</u>	<u>335,384</u>	<u>341,508</u>
General Fund	346,525	272,733	335,384	341,508
Cash Funds	0	0	0	0
Reappropriated Funds	0	0	0	0
Federal Funds	0	0	0	0

* Indicates this line item includes a FY 2020-21 budget request

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	FY 2017-18 Actual	FY 2018-19 Actual	FY 2019-20 Appropriation	FY 2020-21 Request	Request vs. Appropriation
Global Business Development	<u>4,258,604</u>	<u>4,275,477</u>	<u>5,340,052</u>	<u>5,120,052</u>	*
FTE	12.0	0.0	24.4	24.4	
General Fund	4,031,948	3,847,977	4,216,948	3,996,948	
Cash Funds	29,412	196,328	573,626	573,626	
Reappropriated Funds	0	0	175,000	175,000	
Federal Funds	197,244	231,172	374,478	374,478	
Office of Outdoor Recreation	<u>0</u>	<u>0</u>	<u>0</u>	<u>370,000</u>	*
FTE	0.0	0.0	0.0	3.0	
General Fund	0	0	0	370,000	
Leading Edge Program Grants	<u>94,316</u>	<u>103,617</u>	<u>151,407</u>	<u>151,407</u>	
General Fund	75,976	75,976	75,976	75,976	
Cash Funds	18,340	27,641	75,431	75,431	
Reappropriated Funds	0	0	0	0	
Federal Funds	0	0	0	0	
Small Business Development Centers	<u>2,150,855</u>	<u>2,203,422</u>	<u>1,378,946</u>	<u>1,518,946</u>	*
FTE	4.1	0.0	4.0	4.0	
General Fund	94,144	94,144	94,144	234,144	
Cash Funds	0	0	0	0	
Reappropriated Funds	0	0	0	0	
Federal Funds	2,056,711	2,109,278	1,284,802	1,284,802	

* Indicates this line item includes a FY 2020-21 budget request

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	FY 2017-18 Actual	FY 2018-19 Actual	FY 2019-20 Appropriation	FY 2020-21 Request	Request vs. Appropriation
Colorado Office of Film, Television, and Media	<u>266,247</u>	<u>690,799</u>	<u>1,269,525</u>	<u>1,269,525</u>	
FTE	4.5	0.0	4.5	4.5	
General Fund	0	540,102	750,000	750,000	
Cash Funds	266,247	150,697	519,525	519,525	
Reappropriated Funds	0	0	0	0	
Federal Funds	0	0	0	0	
Colorado Promotion - Colorado Welcome Centers	<u>499,779</u>	<u>454,129</u>	<u>516,000</u>	<u>516,000</u>	
FTE	3.5	4.3	3.3	3.3	
General Fund	0	0	0	0	
Cash Funds	499,779	454,129	516,000	516,000	
Reappropriated Funds	0	0	0	0	
Federal Funds	0	0	0	0	
Colorado Promotion - Other Program Costs	<u>18,077,068</u>	<u>17,980,493</u>	<u>18,579,623</u>	<u>18,429,623</u> *	
FTE	9.7	8.6	4.0	4.0	
General Fund	4,000,000	4,000,000	4,000,000	3,850,000	
Cash Funds	14,077,068	13,980,493	14,579,623	14,579,623	
Reappropriated Funds	0	0	0	0	
Federal Funds	0	0	0	0	
Destination Development Program	<u>449,606</u>	<u>808,015</u>	<u>1,100,000</u>	<u>1,100,000</u>	
General Fund	0	500,000	500,000	500,000	
Cash Funds	449,606	308,015	600,000	600,000	
Reappropriated Funds	0	0	0	0	
Federal Funds	0	0	0	0	

* Indicates this line item includes a FY 2020-21 budget request

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	FY 2017-18 Actual	FY 2018-19 Actual	FY 2019-20 Appropriation	FY 2020-21 Request	Request vs. Appropriation
Economic Development Commission - General Economic					
Incentives and Marketing	<u>5,745,715</u>	<u>5,725,132</u>	<u>6,119,456</u>	<u>5,878,237</u> *	
FTE	5.9	6.1	5.8	5.8	
General Fund	5,465,664	5,465,663	5,685,664	5,444,445	
Cash Funds	280,051	259,469	433,792	433,792	
Reappropriated Funds	0	0	0	0	
Federal Funds	0	0	0	0	
Colorado First Customized Job Training	<u>4,500,000</u>	<u>4,500,000</u>	<u>4,500,000</u>	<u>4,500,000</u>	
General Fund	4,500,000	4,500,000	4,500,000	4,500,000	
Cash Funds	0	0	0	0	
Reappropriated Funds	0	0	0	0	
Federal Funds	0	0	0	0	
CAPCO Administration	<u>85,291</u>	<u>85,291</u>	<u>85,291</u>	<u>85,291</u>	
FTE	1.1	0.8	2.0	2.0	
General Fund	0	0	0	0	
Cash Funds	0	0	0	0	
Reappropriated Funds	85,291	85,291	85,291	85,291	
Federal Funds	0	0	0	0	
Council on Creative Industries	<u>3,222,958</u>	<u>3,276,183</u>	<u>2,788,734</u>	<u>2,799,520</u> *	
FTE	4.8	5.1	3.0	3.0	
General Fund	2,504,958	0	0	0	
Cash Funds	0	2,555,883	2,023,000	2,033,786	
Reappropriated Funds	718,000	0	0	0	
Federal Funds	0	720,300	765,734	765,734	

* Indicates this line item includes a FY 2020-21 budget request

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	FY 2017-18 Actual	FY 2018-19 Actual	FY 2019-20 Appropriation	FY 2020-21 Request	Request vs. Appropriation
Advanced Industries	<u>10,356,375</u>	<u>14,040,766</u>	<u>15,362,210</u>	<u>15,362,210</u>	
FTE	2.8	2.6	2.6	2.6	
Cash Funds	10,356,375	14,040,766	15,362,210	15,362,210	
Rural Jump Start	<u>80,922</u>	<u>80,983</u>	<u>80,983</u>	<u>80,983</u> *	
FTE	1.0	0.7	1.0	1.0	
General Fund	80,922	80,983	80,983	80,983	
Indirect Cost Assessment	<u>61,384</u>	<u>339,199</u>	<u>362,993</u>	<u>361,557</u>	
General Fund	0	0	0	0	
Cash Funds	61,384	339,199	362,993	361,557	
Reappropriated Funds	0	0	0	0	
Federal Funds	0	0	0	0	
TOTAL - (4) Economic Development Programs	50,852,456	55,542,827	58,766,645	58,683,317	(0.1%)
FTE	<u>61.0</u>	<u>34.2</u>	<u>60.6</u>	<u>63.6</u>	5.0%
General Fund	21,756,948	20,079,581	21,030,555	20,942,462	(0.4%)
Cash Funds	26,038,262	32,315,055	35,048,635	35,055,550	0.0%
Reappropriated Funds	803,291	85,291	260,291	260,291	0.0%
Federal Funds	2,253,955	3,062,900	2,427,164	2,425,014	(0.1%)

* Indicates this line item includes a FY 2020-21 budget request

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	FY 2017-18 Actual	FY 2018-19 Actual	FY 2019-20 Appropriation	FY 2020-21 Request	Request vs. Appropriation
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(5) OFFICE OF INFORMATION TECHNOLOGY

The Governor's Office of Information Technology (OIT) is responsible for the operation and delivery of all information and communications technology services across the Executive Branch agencies in the State. The Office is tasked with providing the information technology services, as well as promoting Colorado as the ideal location for information technology companies and technology-based workers.

(A) OIT Central Administration

Central Administration	<u>10,822,975</u>	<u>11,747,528</u>	<u>14,109,226</u>	<u>15,429,518</u> *
FTE	83.1	87.7	97.5	96.0
General Fund	0	30,639	711,061	139,825
Cash Funds	1,531,439	2,375,319	3,200,000	3,200,000
Reappropriated Funds	9,291,536	9,341,570	10,198,165	12,089,693
Federal Funds	0	0	0	0
Project Management	<u>5,611,907</u>	<u>5,713,371</u>	<u>8,164,132</u>	<u>9,381,096</u> *
FTE	47.7	46.3	55.0	56.0
General Fund	0	0	200,000	184,503
Cash Funds	0	0	0	0
Reappropriated Funds	5,611,907	5,713,371	7,964,132	9,196,593
Federal Funds	0	0	0	0
Health, Life, and Dental	<u>8,345,064</u>	<u>8,969,578</u>	<u>9,499,456</u>	<u>11,507,323</u> *
General Fund	67,238	101,562	91,280	204,444
Reappropriated Funds	8,277,826	8,868,016	9,408,176	11,302,879
Short-term Disability	<u>137,996</u>	<u>127,363</u>	<u>131,262</u>	<u>147,818</u> *
General Fund	1,166	1,414	1,276	3,011
Reappropriated Funds	136,830	125,949	129,986	144,807

* Indicates this line item includes a FY 2020-21 budget request

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	FY 2017-18 Actual	FY 2018-19 Actual	FY 2019-20 Appropriation	FY 2020-21 Request	Request vs. Appropriation
S.B. 04-257 Amortization Equalization Disbursement	<u>3,636,575</u>	<u>3,753,986</u>	<u>3,866,541</u>	<u>4,358,340</u>	*
General Fund	30,709	41,620	37,719	88,693	
Reappropriated Funds	3,605,866	3,712,366	3,828,822	4,269,647	
S.B. 06-235 Supplemental Amortization Equalization Disbursement	<u>3,636,575</u>	<u>3,753,986</u>	<u>3,866,541</u>	<u>4,358,340</u>	*
General Fund	30,709	41,620	37,719	88,693	
Reappropriated Funds	3,605,866	3,712,366	3,828,822	4,269,647	
PERA Direct Distribution	<u>0</u>	<u>0</u>	<u>2,144,838</u>	<u>2,055,950</u>	
General Fund	0	0	22,113	22,637	
Reappropriated Funds	0	0	2,122,725	2,033,313	
Salary Survey	<u>1,384,517</u>	<u>2,437,565</u>	<u>2,399,232</u>	<u>1,875,548</u>	
General Fund	11,701	27,051	24,587	20,665	
Reappropriated Funds	1,372,816	2,410,514	2,374,645	1,854,883	
Shift Differential	<u>92,356</u>	<u>99,153</u>	<u>44,005</u>	<u>84,471</u>	
Reappropriated Funds	92,356	99,153	44,005	84,471	
Workers' Compensation	<u>507,408</u>	<u>393,061</u>	<u>329,357</u>	<u>239,514</u>	
Reappropriated Funds	507,408	393,061	329,357	239,514	
Legal Services	<u>33,247</u>	<u>53,796</u>	<u>188,495</u>	<u>193,245</u>	
Reappropriated Funds	33,247	53,796	188,495	193,245	
Payment to Risk Management and Property Funds	<u>260,522</u>	<u>277,119</u>	<u>304,521</u>	<u>425,848</u>	
Reappropriated Funds	260,522	277,119	304,521	425,848	

* Indicates this line item includes a FY 2020-21 budget request

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	FY 2017-18 Actual	FY 2018-19 Actual	FY 2019-20 Appropriation	FY 2020-21 Request	Request vs. Appropriation
Vehicle Lease Payments	<u>85,260</u>	<u>82,065</u>	<u>86,456</u>	<u>109,663</u>	
Reappropriated Funds	85,260	82,065	86,456	109,663	
Leased Space	<u>3,130,543</u>	<u>3,206,767</u>	<u>3,206,767</u>	<u>3,448,010</u>	
Reappropriated Funds	3,130,543	3,206,767	3,206,767	3,448,010	
Capitol Complex Leased Space	<u>287,859</u>	<u>264,631</u>	<u>238,356</u>	<u>251,310</u>	
Reappropriated Funds	287,859	264,631	238,356	251,310	
Payments to OIT	<u>0</u>	<u>9,251,682</u>	<u>9,251,682</u>	<u>9,251,682</u>	
Reappropriated Funds	0	9,251,682	9,251,682	9,251,682	
CORE Operations	<u>237,501</u>	<u>243,714</u>	<u>211,731</u>	<u>266,348</u>	
FTE	0.0	0.0	0.0	0.0	
Reappropriated Funds	237,501	243,714	211,731	266,348	
Indirect Cost Assessment	<u>670,859</u>	<u>653,337</u>	<u>663,841</u>	<u>763,749</u>	
Reappropriated Funds	670,859	653,337	663,841	763,749	
Merit Pay	<u>576,190</u>	<u>0</u>	<u>0</u>	<u>0</u>	
General Fund	5,205	0	0	0	
Reappropriated Funds	570,985	0	0	0	
Paid Parental Leave	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	
General Fund	0	0	0	0	
Reappropriated Funds	0	0	0	0	

* Indicates this line item includes a FY 2020-21 budget request

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	FY 2017-18 Actual	FY 2018-19 Actual	FY 2019-20 Appropriation	FY 2020-21 Request	Request vs. Appropriation
SUBTOTAL - (A) OIT Central Administration	39,457,354	51,028,702	58,706,439	64,147,773	9.3%
<i>FTE</i>	<u>130.8</u>	<u>134.0</u>	<u>152.5</u>	<u>152.0</u>	<u>(0.3%)</u>
General Fund	146,728	243,906	1,125,755	752,471	(33.2%)
Cash Funds	1,531,439	2,375,319	3,200,000	3,200,000	0.0%
Reappropriated Funds	37,779,187	48,409,477	54,380,684	60,195,302	10.7%
Federal Funds	0	0	0	0	0.0%

(B) IT Infrastructure

Infrastructure Administration	<u>5,540,669</u>	<u>4,871,765</u>	<u>6,822,742</u>	<u>6,978,554</u>	
FTE	20.5	20.5	31.5	33.0	
Reappropriated Funds	5,540,669	4,871,765	6,822,742	6,978,554	
Data Center Services	<u>760,030</u>	<u>801,539</u>	<u>822,021</u>	<u>842,880</u>	
FTE	8.0	8.8	8.0	8.0	
Reappropriated Funds	760,030	801,539	822,021	842,880	
Mainframe Services	<u>4,290,667</u>	<u>3,894,866</u>	<u>4,454,265</u>	<u>4,292,428</u>	*
FTE	29.0	31.0	31.0	31.0	
Cash Funds	0	0	2,328	2,328	
Reappropriated Funds	4,290,667	3,894,866	4,451,937	4,290,100	
Server Management	<u>13,838,233</u>	<u>18,114,150</u>	<u>23,858,358</u>	<u>22,032,189</u>	*
FTE	61.5	62.1	85.5	88.0	
Reappropriated Funds	13,838,233	18,114,150	23,858,358	22,032,189	
SUBTOTAL - (B) IT Infrastructure	24,429,599	27,682,320	35,957,386	34,146,051	(5.0%)
<i>FTE</i>	<u>119.0</u>	<u>122.4</u>	<u>156.0</u>	<u>160.0</u>	<u>2.6%</u>
Cash Funds	0	0	2,328	2,328	0.0%
Reappropriated Funds	24,429,599	27,682,320	35,955,058	34,143,723	(5.0%)

* Indicates this line item includes a FY 2020-21 budget request

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	FY 2017-18 Actual	FY 2018-19 Actual	FY 2019-20 Appropriation	FY 2020-21 Request	Request vs. Appropriation
(C) Network Services					
Network Administration	<u>3,250,913</u>	<u>3,368,907</u>	<u>4,050,938</u>	<u>3,896,618</u>	*
FTE	3.3	2.5	5.0	5.0	
Reappropriated Funds	3,250,913	3,368,907	4,050,938	3,896,618	
Colorado State Network Core	<u>5,626,765</u>	<u>5,801,371</u>	<u>7,538,977</u>	<u>6,148,106</u>	
FTE	35.1	35.6	37.0	37.0	
Reappropriated Funds	5,626,765	5,801,371	7,538,977	6,148,106	
Colorado State Network Circuits	<u>6,127,209</u>	<u>6,988,155</u>	<u>7,080,410</u>	<u>8,211,310</u>	*
Reappropriated Funds	6,127,209	6,988,155	7,080,410	8,211,310	
Voice and Data Services	<u>5,495,825</u>	<u>9,431,519</u>	<u>13,699,921</u>	<u>12,448,758</u>	*
FTE	8.5	11.9	12.0	12.0	
Cash Funds	0	0	1,200,000	0	
Reappropriated Funds	5,495,825	9,431,519	12,499,921	12,448,758	
Public Safety Network	<u>16,707,607</u>	<u>20,531,470</u>	<u>24,844,185</u>	<u>24,919,274</u>	*
FTE	39.4	44.6	54.0	54.0	
General Fund	7,200,000	9,200,000	9,200,000	9,200,000	
Cash Funds	0	0	48,600	48,600	
Reappropriated Funds	9,386,607	11,331,470	15,474,585	15,549,674	
Federal Funds	121,000	0	121,000	121,000	

* Indicates this line item includes a FY 2020-21 budget request

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	FY 2017-18 Actual	FY 2018-19 Actual	FY 2019-20 Appropriation	FY 2020-21 Request	Request vs. Appropriation
SUBTOTAL - (C) Network Services	37,208,319	46,121,422	57,214,431	55,624,066	(2.8%)
<i>FTE</i>	<u>86.3</u>	<u>94.6</u>	<u>108.0</u>	<u>108.0</u>	0.0%
General Fund	7,200,000	9,200,000	9,200,000	9,200,000	0.0%
Cash Funds	0	0	1,248,600	48,600	(96.1%)
Reappropriated Funds	29,887,319	36,921,422	46,644,831	46,254,466	(0.8%)
Federal Funds	121,000	0	121,000	121,000	0.0%
(D) Information Security					
Security Administration	<u>387,875</u>	<u>401,812</u>	<u>422,126</u>	<u>425,898</u>	
<i>FTE</i>	2.9	3.0	3.0	3.0	
Reappropriated Funds	387,875	401,812	422,126	425,898	
Security Governance	<u>6,748,213</u>	<u>6,926,934</u>	<u>7,151,449</u>	<u>7,189,941</u>	
<i>FTE</i>	8.4	9.8	6.0	6.0	
Reappropriated Funds	6,748,213	6,926,934	7,151,449	7,189,941	
Security Operations	<u>4,429,109</u>	<u>5,482,932</u>	<u>12,490,924</u>	<u>8,220,564</u>	
<i>FTE</i>	30.9	35.0	44.0	44.0	
Reappropriated Funds	4,429,109	5,482,932	12,490,924	8,220,564	
SUBTOTAL - (D) Information Security	11,565,197	12,811,678	20,064,499	15,836,403	(21.1%)
<i>FTE</i>	<u>42.2</u>	<u>47.8</u>	<u>53.0</u>	<u>53.0</u>	0.0%
Reappropriated Funds	11,565,197	12,811,678	20,064,499	15,836,403	(21.1%)

* Indicates this line item includes a FY 2020-21 budget request

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	FY 2017-18 Actual	FY 2018-19 Actual	FY 2019-20 Appropriation	FY 2020-21 Request	Request vs. Appropriation
(E) Applications					
Applications Administration	<u>1,893,905</u>	<u>3,535,216</u>	<u>16,290,604</u>	<u>24,172,827</u> *	
FTE	14.5	13.3	18.4	28.3	
General Fund	1,054,600	1,313,202	10,524,955	11,135,889	
Cash Funds	578,892	1,081,345	768,815	616,012	
Reappropriated Funds	260,413	1,140,669	4,996,834	12,420,926	
Shared Services	<u>12,794,192</u>	<u>15,919,416</u>	<u>16,718,087</u>	<u>17,554,359</u> *	
FTE	94.8	73.5	112.0	112.0	
Reappropriated Funds	12,794,192	15,919,416	16,718,087	17,554,359	
Agency Services	<u>20,042,146</u>	<u>21,567,420</u>	<u>28,724,256</u>	<u>28,403,572</u> *	
FTE	177.6	182.8	189.9	201.0	
Reappropriated Funds	20,042,146	21,567,420	28,724,256	28,403,572	
Colorado Benefits Management System	<u>71,959,928</u>	<u>61,180,020</u>	<u>66,653,122</u>	<u>66,376,327</u> *	
FTE	41.6	42.8	49.5	49.5	
Cash Funds	0	(1,997,799)	0	0	
Reappropriated Funds	71,959,928	63,177,819	66,653,122	66,376,327	
SUBTOTAL - (E) Applications	106,690,171	102,202,072	128,386,069	136,507,085	6.3%
FTE	<u>328.5</u>	<u>312.4</u>	<u>369.8</u>	<u>390.8</u>	<u>5.7%</u>
General Fund	1,054,600	1,313,202	10,524,955	11,135,889	5.8%
Cash Funds	578,892	(916,454)	768,815	616,012	(19.9%)
Reappropriated Funds	105,056,679	101,805,324	117,092,299	124,755,184	6.5%

* Indicates this line item includes a FY 2020-21 budget request

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	FY 2017-18 Actual	FY 2018-19 Actual	FY 2019-20 Appropriation	FY 2020-21 Request	Request vs. Appropriation
(F) End User Services					
End User Administration	<u>206,187</u>	<u>214,585</u>	<u>333,509</u>	<u>341,410</u>	
FTE	1.9	2.0	2.0	2.0	
Reappropriated Funds	206,187	214,585	333,509	341,410	
Service Desk Services	<u>3,010,703</u>	<u>2,886,379</u>	<u>4,090,379</u>	<u>4,125,962</u>	
FTE	37.3	37.1	48.0	48.0	
Reappropriated Funds	3,010,703	2,886,379	4,090,379	4,125,962	
Deskside Support Services	<u>9,568,469</u>	<u>9,179,662</u>	<u>9,949,347</u>	<u>10,237,262</u>	
FTE	115.2	110.0	116.0	116.0	
Reappropriated Funds	9,568,469	9,179,662	9,949,347	10,237,262	
Email Services	<u>1,940,802</u>	<u>1,846,877</u>	<u>1,954,680</u>	<u>1,960,523</u>	
FTE	2.3	2.8	3.0	3.0	
Reappropriated Funds	1,940,802	1,846,877	1,954,680	1,960,523	
SUBTOTAL - (F) End User Services	14,726,161	14,127,503	16,327,915	16,665,157	2.1%
FTE	<u>156.7</u>	<u>151.9</u>	<u>169.0</u>	<u>169.0</u>	0.0%
Reappropriated Funds	14,726,161	14,127,503	16,327,915	16,665,157	2.1%
TOTAL - (5) Office of Information Technology	234,076,801	253,973,697	316,656,739	322,926,535	2.0%
FTE	<u>863.5</u>	<u>863.1</u>	<u>1,008.3</u>	<u>1,032.8</u>	2.4%
General Fund	8,401,328	10,757,108	20,850,710	21,088,360	1.1%
Cash Funds	2,110,331	1,458,865	5,219,743	3,866,940	(25.9%)
Reappropriated Funds	223,444,142	241,757,724	290,465,286	297,850,235	2.5%
Federal Funds	121,000	0	121,000	121,000	0.0%

* Indicates this line item includes a FY 2020-21 budget request

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	FY 2017-18 Actual	FY 2018-19 Actual	FY 2019-20 Appropriation	FY 2020-21 Request	Request vs. Appropriation
TOTAL - Governor - Lieutenant Governor - State					
Planning and Budgeting	307,008,082	334,777,903	405,151,943	412,832,077	1.9%
<i>FTE</i>	<u>972.6</u>	<u>986.7</u>	<u>1,157.0</u>	<u>1,184.5</u>	<u>2.4%</u>
General Fund	36,602,721	41,160,888	53,098,394	54,914,051	3.4%
Cash Funds	35,048,695	38,380,196	51,552,746	49,981,869	(3.0%)
Reappropriated Funds	226,634,302	244,542,059	293,603,363	301,247,273	2.6%
Federal Funds	8,722,364	10,694,760	6,897,440	6,688,884	(3.0%)

* Indicates this line item includes a FY 2020-21 budget request

APPENDIX B

RECENT LEGISLATION AFFECTING DEPARTMENT BUDGET

2018 SESSION BILLS

SB 18-027 (ENHANCED NURSE LICENSURE COMPACT): Enacts the Enhanced Nurse Licensure Compact and repeals the existing Nurse Licensure Compact. The enhanced compact requires that all registered and licensed practical nurses licensed after July 20, 2017, complete a fingerprint-based criminal history check in order to participate in the compact. Nurses holding a multi-state license prior to July 20, 2017, will be grandfathered into the enhanced compact. Transfers \$110,000 from the Department of Regulatory Agencies to the Governor's Office of Information Technology for FY 2017-18 for the provision of technology services to implement this bill. For additional information, see the "Recent Legislation" section for the Department of Regulatory Agencies.

S.B. 18-036 (RELOCATE TITLE 24 TOBACCO SALES MINORS TO TITLE 44): Relocates statutes concerning regulation of tobacco sales to minors from Title 24 to the newly created Title 44 of the Colorado Revised Statutes and makes minor technical changes. In FY 2018-19, appropriates \$6,730 cash funds including \$5,402 from the Liquor Enforcement Division and State Licensing Authority Cash Fund and \$1,328 from the Tobacco Education Programs Fund, to the Department of Revenue, of which \$4,630 is reappropriated to the Governor's Office of Information Technology for FY 2018-19. For additional information, see the "Recent Legislation" section for the Department of Revenue.

S.B. 18-086 (CYBER CODING CRYPTOLOGY FOR STATE RECORDS): Requires the state's Chief Information Security Officer to annually identify, assess, and mitigate cyber threats to the State. Includes various provisions to promote security of state data and Colorado's role as a center for cybersecurity research, development, and training. Among other provisions, appropriates \$5,100,000 General Fund to the Department of Higher Education in FY 2018-19 for allocation to higher education governing boards participating in activities related to cybersecurity and distributed ledger technologies as follows: Colorado Mesa University - \$300,000; Metropolitan State University of Denver - \$300,000; Western State Colorado University - \$200,000; Colorado State University System - \$1,200,000; University of Colorado System - \$2,800,000; Community College System - \$300,000. General Fund appropriations are first appropriated to the College Opportunity Fund Program and are then reappropriated to the individual governing boards for fee-for-service contracts, resulting in a matching increase of \$5,100,000 reappropriated funds. Appropriates \$250,000 General Fund and 1.0 FTE to the Governor's Office of Information Technology to evaluate the potential use of blockchain and distributed ledger technologies and make recommendations to the Joint Technology Committee on future implementation opportunities of such technologies. For additional information, see the "Recent Legislation" section for the Department of Higher Education.

S.B. 18-150 (VOTER REGISTRATION INDIVIDUALS CRIMINAL JUSTICE SYSTEM): Changes the election code to allow the Department of State to preregister parolees to vote once removed from parole and qualified to vote. Directs the Division of Adult Parole in the Department of Corrections to provide voter information to persons released from parole. Appropriates \$95,555 cash fund from the Department of State Cash Fund. Transfers \$89,600 from the Department of Corrections to the Governor's Office of Information Technology for FY 2018-19 for the provision of technology

services to implement this bill. For additional detail, see the “Recent Legislation” section for the Department of Corrections.

H.B. 18-1017 (PSYCHOLOGY INTERJURISDICTIONAL COMPACT): Enters Colorado into the Psychology Interjurisdictional Compact to allow psychologists to practice in other compact states (member states) via telepsychology or short-term, in-person practice. To participate in the compact, a psychologist must have a full and unrestricted psychologist license in a member state and possess appropriate certifications from the Association of State and Provincial Psychology Boards. Transfers \$80,000 from the Department of Regulatory Agencies to the Governor’s Office of Information Technology for FY 2018-19 for the provision of technology services to implement this bill. For additional information, see the “Recent Legislation” section for the Department of Regulatory Agencies.

H.B. 18-1042 (PRIVATE INTERSTATE COMMERCIAL VEHICLE REGISTRATION): Allows private parties to perform expedited vehicle registrations for commercial trucks. Requires the Department of Revenue (DOR) to promulgate rules in order to allow a private provider to perform expedited vehicle registration for Class A commercial vehicles. The provider may retain a service fee, but will collect and remit the registration taxes and fees to the department. In FY 2018-19, includes a net appropriation of \$20,865 General Fund and includes a net decrease of 0.3 FTE to the Department of Revenue, of which \$16,016 is reappropriated to the Governor's Office of Information Technology for FY 2018-19. For additional information, see the “Recent Legislation” section for the Department of Revenue.

H.B. 18-1135 (EXTEND ADVANCED INDUSTRY EXPORT ACCELERATION PROGRAM): Extends the Advanced Industries Export Acceleration Program that managed by the Office of Economic Development through January 1, 2025. Appropriates \$175,000 General Fund to the Advanced Industries Export Acceleration Cash Fund for FY 2018-19 and reappropriates an equal amount from the Fund to the Office.

HB 18-1160 (SUPPLEMENTAL BILL): Modifies FY 2017-18 appropriations to the Department.

H.B. 18-1256 (SUNSET CONTINUE CIVIL RIGHTS DIVISION AND COMMISSION): Continues the state's Civil Rights Division and Civil Rights Commission in the Department of Regulatory Agencies, which are scheduled to repeal on July 1, 2018. Transfers \$10,000 from the Department of Regulatory Agencies to the Governor’s Office of Information Technology for FY 2018-19 for the provision of technology services to implement this bill. For additional information, see the “Recent Legislation” section at the end of Part III for the Department of Regulatory Agencies.

H.B. 18-1267 (INCOME TAX CREDIT FOR RETROFITTING HOME FOR HEALTH): For tax years 2019 through 2023, allows certain taxpayers to claim a state income tax credit for a portion of qualified costs incurred while retrofitting their residence for the purpose of improving accessibility, increasing visitability [sic], or allowing qualified individuals to age in place. Requires the Department of Local Affairs’s (DOLA’s) Division of Housing to certify that the taxpayer meets specified requirements, issue tax credits, and ensure that the total amount of credits issued does not exceed \$1.0 million each year. Appropriates \$132,328 General Fund to DOLA for FY 2018-19, and states the assumption that DOLA will require an additional 1.0 FTE. Appropriates \$65,508 of this amount to the Office of the Governor for FY 2018-19 to provide information technology services to DOLA. For additional information, see the “Recent Legislation” section for the Department of Local Affairs.

H.B. 18-1299 (ELECTRONIC FILING TITLE REGISTRATION MOTOR VEHICLE): Under current law, the Department of Revenue (DOR) may establish a system to allow the electronic transmission of registration, lien, and titling information for motor vehicles. To implement this system, the bill allows the DOR to adopt rules to: maintain titling information electronically; accept electronic signatures on any documents; eliminate any notarization requirements for document signatures; allow all parties to electronically file and release lien information; and authorize third-party providers to process registration, lien, and titling information on behalf of a business entity. The bill includes an appropriation clause for FY 2018-19, however the effective date clause in the bill establishes an effective date for the entire bill of July 1, 2019, nullifying the appropriation in FY 2018-19. For additional information, see the “Recent Legislation” section for the Department of Revenue.

H.B. 18-1322 (LONG BILL): General appropriations act for FY 2018-19.

H.B. 18-1323 (PAY FOR SUCCESS CONTRACTS PILOT PROGRAM FUNDING): Transfers specified amounts from the General Fund and the Marijuana Tax Cash Fund to the Office of State Planning and Budgeting (OSP) Youth Pay for Success Initiatives Account within the Pay for Success Contracts Fund for FY 2018-19 through FY 2021-22. OSPB may expend this money for three specified Pay for Success contracts for pilot programs designed to reduce juvenile involvement in the justice system, reduce out-of-home placements of juveniles, and improve on-time high school graduation rates. The Department of Human Services may expend any money appropriated to it from the Account for expenses related to the administration of any pay for success contract. This bill has a General Fund impact of \$401,314 for FY 2018-19 and a total General Fund impact of \$1.9 million between FY 2018-19 and FY 2021-22. Additionally, the bill has a Marijuana Tax Cash Fund impact of \$989,470 for FY 2018-19 and a total Marijuana Tax Cash Fund impact of \$4.4 million between FY 2018-19 and FY 2021-22. Appropriates \$718,412 cash funds from the Youth Pay for Success Initiatives Account within the Pay for Success Contracts Fund to OSPB for FY 2018-19 to implement the pilot programs.

TRANSFERS TO THE OFFICE OF STATE PLANNING AND BUDGETING YOUTH PAY FOR SUCCESS INITIATIVES ACCOUNT					
TRANSFER SOURCE	FY 2018-19	FY 2019-20	FY 2020-21	FY 2021-22	TOTAL
General Fund	\$401,314	\$545,079	\$498,355	\$448,480	\$1,893,228
Marijuana Tax Cash Fund	989,470	1,717,764	1,725,066	0	4,432,300
TOTAL	\$1,390,784	\$2,262,843	\$2,223,421	\$448,480	\$6,325,528

H.B. 18-1324 (CODIFY GOVERNOR'S COMMISSION ON COMMUNITY SERVICE): Codifies the Governor’s existing Commission on Community Service, known as Serve Colorado, in statute. The program was created through an executive order issued by Governor Romer in 1993. Governor Owens recreated Serve Colorado in 2002 and placed it in the Lieutenant Governor’s Office. This bill establishes the powers of Serve Colorado, including the makeup of its commission, its obligations, and its duties. Appropriates \$200,000 General Fund to the Office of the Lieutenant Governor for FY 2018-19 to cover a portion of the program’s operations.

H.B. 18-1325 (DIGITAL TRUNKED RADIO SYSTEM COVERAGE GAPS): Expands the allowable use of the Public Safety Communications Trust Fund (Fund) and appropriates \$2.0 million from the General Fund to the Fund for FY 2018-19 and FY 2019-20 to address network coverage gaps and reappropriates an equal amount from the Fund to the Office of Information Technology.

H.B. 18-1339 (BACKGROUND CHECKS FOR EMPLOYEES WITH ACCESS TO FEDERAL TAX INFORMATION): Requires each applicant, state employee, state contractor, or other individual who has or may have access through a state agency to federal tax information received from the federal government to submit to a fingerprint-based criminal history records check. Specifies that a state agency that shares such federal tax information with a county may authorize and require the county department applicants, employees, contractors, or other individuals to submit to a fingerprint-based criminal history records check. Requires a state agency to deny access to federal tax information received from the federal government to any individual who does not pass the fingerprint-based criminal history record check. Appropriates \$6,188 General Fund to the Governor’s Office of Information Technology for FY 2018-19 to purchase of criminal history background checks for employees. For additional information, see the “Recent Legislation” section for the Department of Revenue.

H.B. 18-1353 (DEFENSE COUNSEL ON FIRST APPEARANCE GRANT PROGRAM): Creates the Defense Counsel on First Appearance Grant Program in the Department of Local Affairs’s Division of Local Government to reimburse local governments for costs associated with the provision of defense counsel to defendants at their first appearances in municipal courts. Allows the Division to spend the annual appropriation for this grant program over two fiscal years. Appropriates \$1,853,037 General Fund to DOLA for FY 2018-19, and states the assumption that DOLA will require an additional 0.5 FTE. Appropriates \$6,078 of this amount to other agencies for FY 2018-19 to provide services to DOLA, including \$4,480 to the Office of the Governor for information technology services and \$1,598 to the Department of Law to provide legal services. For additional information, see the “Recent Legislation” section for the Department of Local Affairs.

2019 SESSION BILLS

S.B. 19-006 (ELECTRONIC SALES AND USE TAX SIMPLIFICATION SYSTEM): Requires the Office of Information Technology to solicit bids for an electronic sales and use tax simplification system. Appropriates \$9,183,000 General Fund to the Office of the Governor for FY 2019-20 for the initial funding of the electronic sales and use tax simplification system. Additionally, appropriates \$817,000 General Fund to the Department of Revenue for FY 2019-20 to create and maintain a geographic information systems (GIS) database of jurisdictional boundaries of sales tax districts to calculate appropriate sales and use tax rates for individual addresses. Reappropriates this amount to the Office of the Governor to create and maintain this database. For additional information, see the “Recent Legislation” section for the Department of Revenue.

S.B. 19-073 (STATEWIDE SYSTEM OF ADVANCE MEDICAL DIRECTIVES): Requires the Department of Public Health and Environment to create and administer a statewide electronic system of advance medical directives. Appropriates \$993,147 General Fund and 0.5 FTE to the Department of Public Health and Environment for FY 2019-20 to procure and maintain the advance medical directives system. Reappropriates \$750,000 of this amount to the Office of the Governor to provide information technology services. For additional information, see the “Recent Legislation” section for the Department of Public Health and Environment.

S.B. 19-112 (SUPPLEMENTAL BILL): Modifies FY 2018-19 appropriations to the Department.

S.B. 19-143 (PAROLE CHANGES): Makes various changes to prison population management options, reentry services, parole, and facility security level designation. Appropriates \$25,200 General Fund to the Department of Corrections for FY 2019-20 to update existing systems to generate various eligible offender lists to forward to the State Parole Board. Reappropriates this amount to the Office of the Governor to provide information technology services. For additional information, see the “Recent Legislation” section for the Department of Corrections.

S.B. 19-165 (INCREASE PAROLE BOARD MEMBERSHIP): Increases the number of State Parole Board members from seven to nine. Appropriates \$293,774 General Fund and 1.8 FTE to the Department of Corrections for FY 2019-20 for the two additional Board members and for programming changes to the Board’s computation system that is currently programmed for seven members. Of this amount, reappropriates \$5,936 to the Office of the Governor to provide information technology services. For additional information, see the “Recent Legislation” section for the Department of Corrections.

S.B. 19-178 (PROGRAM TO SUBSIDIZE ADOPTION FOR CHILDREN AND YOUTH): Repeals and reenacts the Adoption Assistance Program. Appropriates \$60,204 total funds, including \$42,143 General Fund to the Department of Human Services for FY 2019-20 to make modifications to the child protective services system in order to collect and report on the necessary data. Reappropriates this amount to the Office of the Governor to provide information technology services. For additional information, see the “Recent Legislation” section for the Department of Human Services.

S.B. 19-207 (LONG BILL): General appropriations act for FY 2019-20.

S.B. 19-223 (ACTIONS RELATED TO COMPETENCY TO PROCEED): Makes various changes to the process when a defendant's competency to proceed is raised in a criminal proceeding. Appropriates the following:

- \$6,458,000 General Fund for FY 2018-19 and \$8,141,194 General Fund and 19.0 FTE for FY 2019-20 to the Department of Human Services to add psychologists to conduct inpatient and outpatient competency evaluations, to provide case management services and support must be provided to defendants released, for additional community-based restoration and jail-based mental health services, increase the number of social workers to ensure the proper care and coordination of pretrial defendants, and to develop an electronic system to track the status of defendants receiving competency evaluation or restoration services. Of the amount appropriated for FY 2019-20, reappropriates \$454,539 and 0.9 FTE to the Office of the Governor to provide information technology services and \$50,000 to the Department of Law for the provision of legal services; and
- \$750,570 and 5.4 FTE to the Judicial Department for FY 2019-20 for trial courts to review additional and more thorough competency reports, periodically review the status of defendants, and to conduct more competency and civil commitment hearings.

For additional information, see the “Recent Legislation” section for the Department of Human Services.

S.B. 19-235 (AUTOMATIC VOTER REGISTRATION): Requires the transfer of certain records to the Department of State for the purpose of automatically registering voters. Appropriates the following:

- \$67,840 cash funds to the Department of State for FY 2019-20 to create automated voter registration modules in the statewide voter registration system for the information received from the Department of Revenue, pursuant to this legislation;
- \$136,240 total funds, including \$61,301 General Fund, to the Department of Human Services for FY 2019-20 to make modifications to the Colorado Benefits Management System to enable the electronic monthly transfer of information from the Department of Human Services to the Department of State. Reappropriates this amount to the Office of the Governor to provide information technology services; and
- \$18,000 General Fund to the Department of Revenue for FY 2019-20 to allow for the automatic transfer of driver records from the Department's Division of Motor Vehicles to the Department of State.

For additional information, see the "Recent Legislation" section for the Department of State.

S.B. 19-251 (REQUIREMENTS OF OIT OFFICE OF INFORMATION TECHNOLOGY BASED ON EVALUATION RECOMMENDATIONS): Implements several recommendations from a recent evaluation of the Governor's Office of Information Technology (OIT). Specifically, the legislation requires:

- The project management plan for every major information technology project to include a change management plan;
- OIT to develop and implement a communications and stakeholder management plan for interacting with its customers, and develop a method to annually solicit customer feedback;
- OIT to convene a working group to create and implement a strategic plan for how state agencies use technology to provide services, data, and information to citizens and businesses; and
- OIT to convene a working group during the 2019 legislative interim to determine the cost and feasibility of transferring the ownership of information technology assets to OIT and to report to the General Assembly by December 1, 2019 with any recommendations.

Appropriates \$775,000 General Fund and 2.0 FTE to the Office of the Governor to incorporate a change management plan into major information technology projects and to contract for vendor services to support the creation of strategic plans.

S.B. 19-256 (ELECTRONIC DOCUMENTS MOTOR VEHICLE APPROPRIATION): Appropriates \$1,187,502 cash funds and 1.7 FTE to the Department of Revenue for FY 2019-20, of which \$16,590 is reappropriated to the Office of the Governor to provide information technology services, to implement H.B. 18-1299 (Electronic Filing Title Registration Motor Vehicle). House Bill 18-1299 authorized third-party providers to electronically process registration, lien, and titling information, distribute license plate inventory, and distribute the Department of Revenue's registration information to business entities. For additional information, see the "Recent Legislation" section for the Department of Revenue.

H.B. 19-1009 (SUBSTANCE USE DISORDERS RECOVERY): Expands a state housing voucher program to individuals with substance use disorders who are transitioning back into the community, requires certification of recovery residences, and creates the Opioid Crisis Recovery Funds Advisory Committee. Appropriates \$1,000,000 cash funds and 0.9 FTE to the Department of Local Affairs for FY 2019-20 to administer the expanded supportive housing program and to provide additional

housing vouchers. Of this amount, \$2,560 is reappropriated to the Office of the Governor to provide information technology services. Additionally, appropriates \$50,000 General Fund to the Department of Human Services for FY 2019-20 to administer grants to recovery residences. For additional information, see the “Recent Legislation” section at for the Department of Local Affairs.

H.B. 19-1127 (LIEUTENANT GOVERNOR CONCURRENT STATE SERVICE): Allows the Lieutenant Governor to serve as the Director of the Office of Saving People Money on Health Care and increases the salary of the Lieutenant Governor to serve in this role. Appropriates \$12,423 General Fund for FY 2018-19 and \$74,537 General Fund for FY 2019-20 to the Office of the Governor to cover the costs of the Lieutenant Governor’s salary increase.

H.B. 19-1287 (TREATMENT FOR OPIOIDS AND SUBSTANCE USE DISORDERS): Enacts several initiatives to improve access to behavioral health care and substance use disorder treatment services, including the development of a web-based behavioral health capacity tracking system, establishment of a care navigation program, and creation of a capacity building grant program. Appropriates \$5,589,344 cash funds and 2.5 FTE to the Department of Human Services for FY 2019-20 build the systems and programs necessitated by this legislation. Of this amount, \$160,206 is reappropriated to the Office of the Governor to provide information technology services. Additionally, appropriates \$63,922 total funds, including \$21,733 General Fund, to the Department of Health Care Policy and Financing for FY 2019-20 to assist in care coordination for Medicaid clients. For additional information, see the “Recent Legislation” section for the Department of Human Services.

H.B. 19-1309 (MOBILE HOME PARK ACT OVERSIGHT): Creates certain protections for mobile home owners and establishes the Mobile Home Park Act Dispute Resolution and Enforcement program fund. Appropriates \$22,073 cash funds and 0.1 FTE to the Department of Law for FY 2019-20 to provide legal services to the Department of Local Affairs. Additionally, appropriates \$130,065 cash funds to the Office of the Governor to provide information technology services to the Department of Local Affairs. For additional information, see the “Recent Legislation” section for the Department of Local Affairs.

APPENDIX C FOOTNOTES AND INFORMATION REQUESTS

UPDATE ON LONG BILL FOOTNOTES

- 9 **Governor - Lieutenant Governor - State Planning and Budgeting, Office of Information Technology, Applications, Colorado Benefits Management System** -- Of this appropriation, \$5,000,000 remains available until the close of the 2020-21 state fiscal year.

COMMENT: Provides two-year spending authority for Colorado Benefits Management System. Of this amount, \$2.5 million is transferred from the Department of Human Services and \$2.5 million is transferred from the Department of Health Care Policy and Financing.

UPDATE ON REQUESTS FOR INFORMATION

- 4 **Governor – Lieutenant Governor – State Planning and Budgeting, Office of State Planning and Budgeting; and Department of Public Safety, Division of Homeland Security and Emergency Management, Office of Emergency Management, Disaster Response and Recovery** -- The Office of Emergency Management is requested to work with the Office of State Planning and Budgeting to provide a report to the Joint Budget Committee by November 1, 2019, concerning revenues credited to and expenditures made from the Disaster Emergency Fund in fiscal years 2016-17, 2017-18, and 2018-19. The report is requested to include the following: (a) amounts authorized to be transferred to the Disaster Emergency Fund, by Executive Order and fund source; (b) amounts actually transferred to the Fund, by date and fund source; (c) actual expenditures from the Fund, by declared disaster emergency, (d) reimbursements credited to the Fund, by date and source, and (e) total fund balance and unencumbered fund balance.

COMMENT: This request was included at the recommendation of JBC staff for the Department of Public Safety and is included in this document for informational purposes only. The Department submitted the report as required. See [Appendix E in the Staff Briefing for the Department of Public Safety presented November 22, 2019](#), for the revenues and expenditures for the Disaster Emergency Fund from FY 2016-17 to FY 2018-19.

APPENDIX D

DEPARTMENT ANNUAL PERFORMANCE REPORT

Pursuant to Section 2-7-205 (1)(b), C.R.S., the Office of the Governor is required to publish an **Annual Performance Report** for the *previous fiscal year* by November 1 of each year. This report is to include a summary of the Office's performance plan and most recent performance evaluation for the designated fiscal year. In addition, pursuant to Section 2-7-204 (3)(a)(I), C.R.S., the Office is required to develop a **Performance Plan** and submit the plan for the *current fiscal year* to the Joint Budget Committee and appropriate Joint Committee of Reference by July 1 of each year. The Office maintains separate reports and plans for the Colorado Energy Office, the Office of Economic Development and International Trade, and the Office of Information Technology.

For consideration by the Joint Budget Committee in prioritizing the Office's FY 2020-21 budget request, the FY 2018-19 Annual Performance Report and the FY 2019-20 Performance Plan can be found at the following link listed by program:

<https://www.colorado.gov/pacific/performancemanagement/department-performance-plans>

APPENDIX E
PUBLIC SAFETY COMMUNICATIONS
ACCOUNTABILITY REPORT
(HB 14-1203/HB 18-1325)

House Bill 14-1203 (Funding For Digital Trunked Radio Sys Maintenance), sponsored by the Joint Budget Committee, established a \$3.5 million annual appropriation beginning in FY 2013-14 and continuing for 12 years from the General Fund to replace legacy radio equipment and hardware at radio tower sites that are part of the Digital Trunked Radio System (DTRS). In addition, beginning in FY 2017-18 and continuing for eight years, the bill established an annual appropriation of \$3.7 million from the General Fund to upgrade and maintain software used to operate the DTRS.

To assist the legislature in maintaining adequate oversight of the ongoing upgrade projects, H.B. 14-1203 required the Office of Information Technology (OIT) to submit a report by November 1st each year through 2025 detailing the use of the moneys appropriated each year via this legislation. The annual reports must include the purposes for which the moneys appropriated were used during the prior fiscal year, are being used during the current fiscal year, and the anticipated use of the moneys that will be appropriated in future fiscal years.

Additionally, H.B. 18-1325 (Digital Trunked Radio System Coverage Gaps), sponsored by the Joint Budget Committee, appropriates \$2.0 million from the General Fund to the Public Safety Communications Trust Fund for OIT to work in partnership with local and regional government entities to add additional radio tower sites in areas of the state that are experiencing critical coverage gaps for public safety radio communications. On November 1, 2019 and November 1, 2020, the Office is required to submit a report to the Joint Budget Committee detailing the use of the money appropriated to the Fund for this purpose.

The following pages include the November 1, 2019 report in its entirety.



COLORADO

Governor's Office of Information Technology

Serving people serving Colorado

PUBLIC SAFETY COMMUNICATIONS NETWORK REPORT 2018-2019



The Public Safety Communications Network is pleased to provide this project status report on FY19 accomplishments and FY20 project updates.

EXECUTIVE SUMMARY

ABOUT THE PUBLIC SAFETY COMMUNICATIONS NETWORK

The Governor’s Office of Information Technology (OIT) is statutorily required (C.R.S. 24-37.5-502) to serve the two-way radio communications needs of all state agencies, including but not limited to the departments of public safety, transportation, corrections, and natural resources.



The Public Safety Communications Network (PSCN) under OIT is responsible for all things directly, and in some cases indirectly, related to public safety two-way radio voice communications. The safety of Colorado’s residents and first responders is always the top priority and primary focus for the members of the PSCN team. Two-way voice communications systems providing service to public safety first responders must meet or exceed the industry standard “Rule of Five-Nines.” Translated, that means that public safety voice communications systems must remain in service and available for first responder access a minimum of 99.999% of the time. The dedicated PSCN team is proud to uphold those standards for the digital trunked radio system (DTRS) and other public safety communications systems in use by state agencies statewide.

The state has ownership and maintains full responsibility for the primary Zone Master Site Controller (also known as Zone 1) located at the Denver Transmitter Building. The Zone 1 Master Site is the “Core” of all DTRS network connectivity and system control. In addition to the Zone 1 Master Site, the state owns, manages, and supports four of the other six Zone Master Site Controllers currently supporting the DTRS statewide. Zone 2 is located in Grand Junction and provides system connectivity for many of the transmitter (tower) sites on the western slope. Zone 3 is located in Fort Collins and provides connectivity for transmitter sites primarily in the northeast quadrant of the state. The PSCN successfully added a new Zone Master Site Controller in Montrose, known as Zone 5. The addition of Zone 5 provides critically needed load shedding with the overloaded Zone 2 Controller. Zone 5 opens the ability to expand capacity for state, local, and federal partners through the addition of new sites to fill DTRS coverage gaps on the western slope.

Security, support, upgrade, and maintenance of the DTRS is broad in scope and includes all things related to all systems that directly impact the performance and reliability of the DTRS. Engineering and electronic specialists must be trained and remain proficient at installation, service, repair and maintenance of all systems at state owned and managed Zone Master Sites and transmitter sites. This includes, but is not limited to, knowledge and proficiency of all computer software programs operating various components of the system, 24-hour system monitoring and alarm notification, installation, service and maintenance of all backup power generators and heating/air conditioning units at transmitter sites and routine safety checks and preventive maintenance and repairs of the tower structures and equipment shelters at the sites. Winter survival training and safe operation of the state Sno-cats is mandatory for all specialists responsible for the operation and maintenance of our mountain top sites. Our electronic specialists are geographically and strategically stationed in shops across the state to ensure an immediate response to alarm notifications of any system component trouble or failure. Routine preventive maintenance by the regional specialists ensures the highest level of performance and prevents

interruptions in service and loss of availability. Technicians providing onsite maintenance are able to identify early warning signs of potential failure and immediately take the necessary preventive actions to make repairs and/or plan for replacement of failed or failing components. Our teams are accomplished FCC licensed professionals who are acutely proficient at utilizing the resources required to provide this mission critical service to our users.

PSCN technical staff provide programming, installation, and repair of mobile (vehicle) and portable (hand-held) radios for all participating state agencies.

PSCN engineering staff provide support for state as well as local agencies surrounding complex coverage and path study predictions, transmitter site design and development, FCC licensing and coordination, and FAA compliance.

The PSCN Program Manager negotiates and manages land leases, rights of way, and easements for all state transmitter sites located on private, public, federal, and tribal lands. This position represents the PSCN on a number of committees and user groups, and fulfills the Emergency Support Function #2 (Communications) in the State Emergency Operation Center.

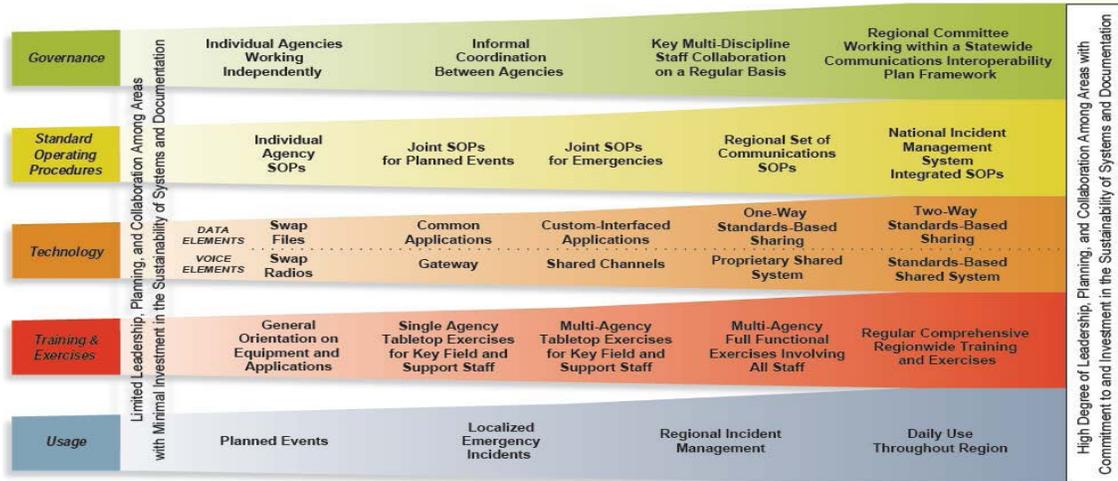
In addition to the responsibilities of the DTRS, the PSCN team also provides support, service, and maintenance for the network of VHF repeaters across the state. This network of VHF repeaters serves to provide state agencies with a means of interoperable communications in some of the state's remote areas and areas with difficult terrain where DTRS coverage is not optimal or may be unavailable.

The Office of the State Auditor (OSA) conducted a performance audit of the PSCN program during FY19. We are very proud to share the PSCN successfully passed the audit with no recommendations made by the OSA team!

ABOUT DTRS

- DTRS provides a near seamless statewide wireless system that enables direct communications between first responder / public safety agencies across jurisdictional and regional boundaries. Local, county, and tribal entities may elect to own, add, connect, and integrate site infrastructure and resources to the DTRS in support of their specific communications needs.
- DTRS capabilities include replacement of multiple disparate and obsolete radio systems operated by state and local agencies with a single integrated system. Partnerships between state, local, regional, tribal, and federal government agencies make this mission critical public safety communications network possible.
- DTRS is available to all public safety, public service, and other governmental agencies that choose to use DTRS as their primary radio system for daily operations, or for agencies that may choose to utilize the resources of the DTRS for communications interoperability only.
- This system is available with 24x7x365 maintenance and support from local, state, and vendor partners.
- DTRS provides 93-95% state and highway mobile radio coverage; *more coverage area than any cellular provider.*
- DTRS meets the highest level of interoperability for technology on the Department of Homeland Security SAFECOM Interoperability Continuum.

SAFECOM - Interoperability Continuum



DTRS FACTS and RECORDED STATISTICS - TO DATE

As of October 1, 2019

- 245 active radio (tower) sites operating on six Master Zone Switch Controllers and 70+ state, local and regional dispatch sites
- Mobile (in vehicle) radio coverage provided to approximately 93%-95% of state roadways, using state OIT coverage modeling software.
- DTRS provides a coverage area far exceeding any Colorado cellular provider.
- Utilizes frequencies in both the 700 MHz and 800 MHz bands.
- More than 111,000 subscriber radios operate on DTRS, representing over 1,000 local, regional, tribal, state, and federal agency first responders. Approximately 18% represent users from state government. The remaining 82% are divided between local, regional, tribal, and federal government agencies.
- State of Colorado PSCN engineers and technicians are responsible for the service and maintenance of 60% of the Zone Master Site Controllers and roughly 65% of the statewide transmitter sites with local government agencies being responsible for the service and maintenance of their owned infrastructure.
- Statistics logged in calendar year 2018 recorded a total of 107,491,543 calls on the DTRS, or a monthly average of 8,957,629 calls totaling 174,936 hours 3 minutes of talk time and 89,259 hours 34 minutes of data time. The majority of voice calls are serving day-to-day operations for primary DTRS user agencies.
- January through September 2019 records log a nine-month total of 80,891,794 calls on the DTRS, or a monthly average of slightly under 9 million calls totaling 131,836 hours 13 minutes of talk time. The majority of these voice calls are serving day-to-day operations for primary DTRS user agencies.

PSCN PROJECT FY19 ACCOMPLISHMENTS - CURRENT

- Replacement of legacy DTRS radio transmitters at state tower sites is ongoing. We have currently completed installation of 1,051 DTRS transmitters (radios) at state transmitter (tower) sites. Included in that number are expansion transmitters being installed to improve system capacity

at many of our sites experiencing capacity concerns during emergency incidents and planned events. In FY19, we have completed installation of 31 expansion transmitters at 29 sites. This long-range equipment replacement and expansion project is funded through appropriations received from the General Fund through the Public Safety Trust Fund, per HB 14-1203.

- Phased replacement of the state’s obsolete microwave equipment used for DTRS site networking remains in progress. As of October 1, 2019 the overall project installation is 77% complete with the ring installation as follows: (Metro) 100% complete; (Northeast) 85% complete; (Southeast) 100% complete; (Southwest) 90% complete; (West) 34% complete. PSCN engineering and technical staff remain fully engaged in all aspects of this project, including but not limited to, planning, design, installation, implementation, and complete oversight of the project. The new microwave radio technology and topology provides greater capacity, increased reliability, enhanced performance, significantly improved redundancy, and greater ability to remotely monitor and control the health and wellbeing of the microwave backhaul network. Appropriations for the Microwave Replacement Project are received through Capital Development Funding.
- The land and tower purchase for our new site in Elbert County (Cedar Point) closed on November 6, 2018. The DTRS and microwave equipment were installed and the site was turned up and on-the-air on April 12, 2019. The Cedar Point site is a major site in the state Southeast microwave ring, with other DTRS sites relying on this site for connectivity. Appropriations for this land and tower acquisition and the microwave equipment to provide connectivity of the new site are funded by the Capital Development Committee designated for the Microwave Replacement Project.
- Tower replacements are ongoing. Appropriations for these tower infrastructure projects are received from the OSA Controlled Maintenance Fund and the Microwave Replacement Project.
 - Tower replacement at the Twin Mtn (Fremont County) site is complete.
 - Tower replacement at the Missionary Ridge (La Plata County) site is complete.
- DiagnostX hardware and software have been installed on a total of 10 state DTRS sites. This hardware and software provides our engineering staff with an enhanced capability to monitor over 111,000 individual radios utilizing the DTRS network. DiagnostX will identify radios operating on the DTRS at a less than optimal or degraded level of performance, creating a possible officer safety concern. Our staff will reach out to the radio owner/operator requesting the radio be scheduled for a preventive maintenance service to regain optimal performance.
- A sixth Zone Master Site Controller was installed in a temporary location and integrated into the DTRS in August 2019. This new Zone Master Site, known as Zone 5, is being hosted at the Colorado State Patrol dispatch center in Montrose. Construction of a room addition on the existing building is in progress. Zone 5 will open currently restricted capacity for state and local governments to add DTRS sites in areas where known coverage gaps exist and will permit load shedding with the Zone 2 Master Site Controller located in Grand Junction. This major and critically needed DTRS infrastructure upgrade was funded at no additional cost to the state through HB14-1203 through a ‘trade-in’ program negotiated with Motorola and from savings realized by a couple local governments funding their portion of the system upgrades.



- The transfer of property from CDOT to OIT at 1420 2nd Street in Greeley closed on December 21, 2018. Construction of the new DTRS tower and regional maintenance shop are in progress. The new tower is up and the maintenance shop construction is well underway, with the exterior complete and interior finishing in progress. Project completion is estimated for December 15, 2019. Upon completion of the maintenance shop, all radio equipment will be moved and installed in the new facility. The old tower will be decommissioned and removed from the property. The Greeley site hosts DTRS transmitters and is a major microwave relay site and fiber hub for northeast Colorado DTRS site connectivity. This site location also provides fiber connectivity to the State Zone 3 Master Site (Controller) currently located in Fort Collins. The “Greeley Project” is approved and funded by the Capital Development Committee and funded through the Long Bill.
- The aged and unreliable uninterrupted power supplies (UPS) at the state Master Site Zone Controllers were successfully replaced. These UPS units protect the Master Site Zone Controllers from planned and unplanned interruptions in commercial power supply. This is critical for uninterrupted DTRS service to our thousands of public safety first responders.

ADDRESSING STATEWIDE DTRS COVERAGE NEEDS - COMPLETED SITES

- **Folsom Field (Boulder County)** - State ADD site - COMPLETE. The University of Colorado-Boulder campus has fully migrated its public safety agencies, CU Police Dispatch Center, and transportation department to the DTRS. The PSCN worked aggressively with the CU Boulder campus facilities management to install a DTRS site on the light bridge at Folsom Field and to assist the CU Police Dispatch Center with full upgrade of dispatch console equipment to DTRS. This site provides global benefit to all DTRS agencies in and around the CU Boulder campus, the City of Boulder, and areas of Boulder County. The Folsom Field 12-channel DTRS site was funded through HB14-1203 and was turned up and on-the-air on April 12, 2019.
- An aerial photograph of Folsom Field, a large outdoor stadium with a green field and tiered seating. The stadium is surrounded by campus buildings and is set against a backdrop of mountains under a clear sky.
- **Flagler (Kit Carson County)** - State ADD site - COMPLETE. This site is a county owned and managed tower site. Kit Carson County approached the PSCN to request assistance in adding DTRS and state microwave equipment at this site to improve coverage along the I-70 corridor in the area of the town of Flagler. Site improvements were accomplished through cooperative efforts of the PSCN and Kit Carson County. DTRS and state microwave equipment were added at this site to support improved coverage. This site provides global benefit to all DTRS agencies in and along the I-70 corridor near the Town of Flagler. The Flagler 6-channel DTRS site was funded through HB14-1203 and was turned up and on-the-air on May 14, 2019.
 - **Stadtman Mesa (Rio Blanco County)** - State ADD site - COMPLETE. This tower site is owned and managed by Rio Blanco County. Rio Blanco County approached the PSCN to request assistance in adding DTRS and state microwave equipment at this site to fill a known DTRS coverage gap along a wide area of Hwy 64 northwest of Meeker. DTRS and microwave equipment were installed by the PSCN at this site to assist in filling this coverage gap. This site provides global benefit for all DTRS agencies in and along the Hwy 64 corridor northwest of the Town of Meeker. The Stadtman

Mesa 6-channel DTRS site was funded through HB14-1203 and was turned up and on-the-air on December 13, 2018.

- **Cortez (Montezuma County) - State ADD site - COMPLETE.** This tower site is owned and managed by the City of Cortez. The City of Cortez approached the PSCN to request assistance in adding DTRS and state microwave equipment at this site to improve coverage in and around the City of Cortez and along the US Hwy 160 corridor through the city. This site also provides redundancy and overlapping DTRS coverage for the City of Cortez. The city was formerly reliant completely on coverage provided from the Ute Mountain DTRS site. The Ute Mountain site becomes unreliable during weather related incidents and access to the site becomes impossible during these weather related incidents. DTRS and microwave equipment were installed by the PSCN at this site to improve coverage and redundancy in this area. This site provides improved and more reliable coverage and global benefit for all DTRS users in and around the area of the City of Cortez and along the US Hwy 160 corridor through the area. The Cortez 6-channel DTRS site was funded through HB14-1203 and was turned up and on-the-air on July 10, 2019.

PSCN FY20 PROJECTS - IN PROGRESS OR CURRENTLY SCHEDULED

- Tower replacement at the Wray (Yuma County) site is in progress. Estimated completion, depending on weather conditions, is 1Q 2020. Funded by the Capital Development Committee as a multiple-year, phased replacement of aged and overloaded towers.
- Tower replacement at the Cedar Mtn (Moffat County) site is in progress, delayed due to the US Bureau of Land Management delays in permitting process. Funded by the Capital Development Committee as a multiple-year phased replacement of aged and overloaded towers.
- Tower replacement at the Valley (Otero County) site is in progress, delayed due to U.S. Forest Service delays in permitting process. Funded by the Capital Development Committee as a multiple-year phased replacement of aged and overloaded towers.
- Tower replacement at the Toonerville (Bent County) site is in progress. Funded by the Capital Development Committee as a multiple-year phased replacement of aged and overloaded towers.
- Contracts have been awarded for the construction of two new towers, one in Yuma County and one in Washington County. Yuma County Board of Commissioners have purchased property to host the PSCN towers and public safety equipment to ensure public safety communications for first responders. Both of these new site projects will be winter 2019/20 projects. These site projects are funded by the Microwave Replacement Project.
- The second in a series of DTRS software platform upgrades began in September 2019 and is in progress. The DTRS infrastructure components have been successfully upgraded to Motorola SR 7.18. Software upgrades have been installed at 1,893 DTRS transmitters, 456 site controllers, and many other infrastructure components. Console and logger software upgrades are in progress and scheduled through the remainder of calendar year 2019. This statewide and system wide software upgrade is a component of the state contract with Motorola for the Migration Assurance Plan (MAP) and System Upgrade Agreement (SUA.) The combination of these two programs ensure long-term sustainment and reliability of the state-owned DTRS hardware and contractually requires biennial DTRS software platform upgrades statewide and system wide. Consistent and scheduled refreshment of the hardware and software components of the DTRS provide all public

safety first responders with the most reliable, most secure, and up-to-date mission critical public safety communications network available. Appropriations for these programs received from the General Fund beginning FY14, through the Public Safety Trust Fund, per HB 14-1203.

- As earlier noted, the PSCN is currently in the process of adding the building addition to host the Zone 5 Master Site Controller in Montrose. We have experienced multiple delays in this project due to extended periods of idle time waiting for code compliance review and approval, unanticipated problems with high water levels found when excavating for the foundation, etc. Work continues, but remains slow.
- The statewide public safety Microwave Replacement Project will continue into 2020 as we continue with equipment replacement at state sites across the western slope. The PSCN continues to work with local governments as we move through the western slope to assist with replacement of legacy microwave systems, as needed or requested. We will be entering the final phase of this project and expect to wrap up the project late FY20. Appropriations for the Microwave Replacement Project are provided by the Capital Development Committee.

ADDRESSING STATEWIDE DTRS COVERAGE NEEDS - CURRENT OR IN PROGRESS

DTRS sites were added in FY 2019-20 and additional sites have been identified and are in various stages of planning and development in 2020-21 by state and local governments. These sites are filling known DTRS coverage gaps. PSCN teams are currently providing engineering and technical support and working cooperatively with local governments and state agencies on the following expansion and proposed expansion DTRS sites:

- **Walden (Jackson County)** - State ADD site - Property lease with Jackson County has been fully executed. Contract has been awarded for the construction of this site. The addition of this site will provide desperately needed DTRS coverage in Jackson County, particularly in the broad area surrounding Walden. The Walden tower site will receive its network connectivity through our Buffalo Pass DTRS site. The tower at Buffalo Pass is a light duty tower that is currently overloaded and lacks height to achieve network connectivity for the new Walden site. The Buffalo Pass tower is scheduled for replacement through Controlled Maintenance funding. Due to the epic winter snows in the 2018/19 winter season, access to the Buffalo Pass site was not possible until early August 2019. The U.S. Forest Service has been provided with construction plans to replace the Buffalo Pass site. We anticipate this tower replacement to occur just as soon as site access is possible in the spring of 2020. This will permit connectivity for the Walden site. This site will provide global benefit to DTRS agencies in Jackson County. Depending on U.S. Forest Service approval for the Buffalo Pass tower replacement in late spring/early summer 2020, we hope to have the 6-channel Walden site on the air in mid-2020.

HB18-1325 DTRS COVERAGE GAP BILL

With the passage of HB18-1325 DTRS Coverage Gap Bill, the PSCN opened the door for local governments to work cooperatively to identify existing tower sites and work with tower owners to add public safety equipment to the site to improve known coverage gaps. Round One applications for this assistance for state provided goods and services related to site development were opened July 1, 2018 and closed September 30, 2018. Round Two applications were opened January 1, 2019 and closed February 28,

2019. Round Three applications were opened July 1, 2019 and closed August 31, 2019. We have received a number of qualifying applications and have, or will be, aiding local governments through the addition of DTRS and microwave equipment, and other needed site improvements where applicable. DTRS sites have been or will be added at these locations:

- **Silo Elbert (Elbert County) - State ADD site - COMPLETE.** This is a county owned and managed tower site in Elbert County. The site fills a known DTRS coverage gap in the area of Elizabeth and the town of Elbert. The PSCN added DTRS and state microwave equipment at this site, and the site was turned up and on-the-air on February 27, 2019. This 6-channel DTRS site provides global benefit for all DTRS agency users in this area. Total HB18-1325 funds applied to this project: \$175,391.43
- **Dory Hill (Gilpin County) - State ADD site - COMPLETE.** This is a county owned and managed tower site in Gilpin County. Gilpin County is currently in the process of migrating their public safety agencies fully to the state DTRS. The PSCN added DTRS equipment at this site and brought DTRS coverage to the site on April 23, 2019, filling the DTRS coverage gap in the area. The PSCN replaced the county microwave with state microwave on October 10, 2019. This 8-channel DTRS site provides global benefit for all DTRS agency users in Gilpin County and parts of Clear Creek and Boulder counties. Total HB18-1325 funds applied to this project: \$408,278.01
- **Bellevue Mountain (Clear Creek County) - State ADD site - COMPLETE.** This is a county owned and managed tower site in Clear Creek County. The county is currently in the process of beginning migration of their public safety agencies to the state DTRS. The PSCN added DTRS and microwave equipment at this site on October 8, 2019 and the site was turned up and on-the-air on October 16, 2019. The Bellevue Mountain site fills a DTRS coverage gap along the I-70 corridor in the area of Idaho Springs. This 8-channel DTRS site provides global benefit for all DTRS agency users in Clear Creek County and the surrounding area. Total HB18-1325 funds applied to this project: \$406,650.81
- **Saxon Mountain (Clear Creek County) - State ADD site - COMPLETE.** This is a county owned and managed tower site in Clear Creek County. The county is currently in the process of beginning migration of their public safety agencies to the state DTRS. The PSCN added DTRS and state microwave equipment at this site on October 24, 2019. This 6-channel DTRS site provides global benefit for all DTRS agency users along the I-70 corridor through Clear Creek County in Georgetown and the surrounding area. Total HB18-1325 funds applied to this project: \$351,472.84
- **Chromo Mountain (Archuleta County) - State ADD site.** This is a tower site owned and managed by the La Plata Electric Association. Local government approached the utility company to gain permission to add DTRS equipment and microwave equipment on this site. The local government is currently working through a difficult private property easement for access to the site. Negotiations are ongoing to gain that easement. The PSCN has conducted a tower analysis to determine and confirm the tower at Chromo Mountain is capable of holding an additional 6' microwave dish antenna. The Chromo Mountain site will receive network connectivity through the Sandoval Mountain DTRS site. The PSCN conducted a tower analysis to determine and confirm the tower at Sandoval Mountain is capable of holding an additional 6' microwave dish antenna. Both towers successfully passed the structural analysis and are

capable of supporting the added antennas. This site requires DTRS and microwave equipment, as well as a new equipment shelter and backup power generator. PSCN is prepared to install DTRS and microwave equipment and the new equipment shelter and generator as soon as the local government works through easements. This site is badly needed in this area to fill a known DTRS coverage gap. It will provide global benefit for all DTRS users in this remote area of Archuleta County. This site is in progress. Total HB18-1325 funds spent to date: \$150,862.80 estimate total to completion: \$568,385.04.

- **Lake Ridge (Grand County) - State ADD site.** - This is a tower site owned and managed by the United States Bureau of Reclamation. Local government approached the USBR to gain permission to add DTRS and microwave equipment to the USBR tower. Permissions have been granted and the site is moving forward. Local government is currently working through local power utility to get commercial power to the site, a requirement for PSCN to add equipment at the site. This site requires DTRS and microwave equipment, as well as a new equipment shelter and backup power generator. PSCN is prepared to install DTRS and microwave equipment and the new equipment shelter and generator as soon as the local government has commercial power at the site. This 6-channel site will provide global benefit for all DTRS users in the area of Grand Lake and up the west side of Highway 34 in Rocky Mountain National Park. This site is in progress. Total HB18-1325 funds encumbered to date: \$408,893.04 estimate total to completion: \$583,893.04.
- **Little Grouse (Teller County) - State ADD site.** This is a tower site owned and managed by the Town of Victor in Teller County. The Teller County Sheriff's Office and other public safety agencies in Teller County have, or are planning to migrate to the DTRS as their primary means of public safety communications. There is a known coverage gap in the area of Victor, which would be covered by the addition of a DTRS site at this location. The site will require DTRS and microwave equipment, as well as an equipment shelter and backup power generator. Since the HB18-1325 application was received, a possible issue has been exposed. The local mining company has announced they will be blocking the proposed microwave path, effectively blocking site connectivity. Local government is currently working with the mine to research a possible solution to the problem. Local government has some work to complete prior to our ordering equipment. The PSCN is prepared to move ahead with bringing the Little Grouse site on the air when local government has worked through the issues.
- **Youngs Peak (Delta County) - State ADD site.** This site has been tentatively approved for HB 18-1325 funding. Delta County is currently working through the permitting process for construction of a new tower. PSCN will add equipment, building, and generator when the tower is complete. This site will fill a large area lacking DTRS coverage in Delta County. Local government must have tower construction complete prior to our ordering equipment.

HIGH PROFILE SUCCESS - BOMB CYCLONE 2019

Winter 2018/19 brought incredible winter storms and epic amounts of snow to the state. Many state employees were encouraged and able to stay home when the bomb cyclone hit Colorado on March 13, 2019. This was not the case for the members of the Public Safety Communications Network (PSCN) team. From the time the State Emergency Operations Center (SEOC) issued an alert of the potential

need for resources in support of storm-related incidents, through activation of Level III, and until nearly noon the following day, this team was working.

During an emergency, the PSCN monitors communication systems, including the DTRS and cell tower sites. In this highly dangerous storm, the team also participated in search and rescue efforts. Early that morning, PSCN Program Manager, Pam Monsees began monitoring all communications-related incidents via WebEOC. Mike Kionka, PSCN Engineer monitored all of the DTRS sites across the state, keeping a keen eye on sites affected by commercial power outages and running on backup power generators. At one point, eight sites were without commercial power, and the number fluctuated throughout the rest of Wednesday and into Thursday, March 14. There was only one site where the generator failed to start up, but with the assistance of PSCN Specialist Chris Brown and PSCN Regional Manager David Applebaum, the electric utility provider made power restoration to the public safety communications tower a top priority and commercial power was restored to the site before the battery backup system was depleted. The site never went off the air.



As reports began to flood in to the SEOC about thousands of stranded motorists in Elbert and El Paso counties, Pam reached out to PSCN Senior Manager Pete Bangas to suggest deployment of two PSCN Sno-Cats to assist in rescue efforts. Pete and PSCN Tech Support Adam Singer were provided a State Patrol escort from Camp George West in Golden to El Paso County, traveling in the northbound lanes (since southbound I-25 lanes were completely blocked by hundreds of abandoned vehicles). Pete and Adam worked through the night and until nearly noon on

Thursday to reach and assist all possible stranded, frightened, and hypothermic people. PSCN Southeast Regional Manager Mike McQueen and PSCN Tech Support Ron Bennett responded to the area on Thursday morning to offer relief to Pete and Adam. All radio communications between the search and rescue teams and incident command were conducted on the DTRS. The system never faltered!

The PSCN always works together as a dedicated team of professionals. Each knows his or her responsibility and willingly and eagerly step up to provide service in every way possible to protect the public and Colorado's public safety agencies. The staff sacrifice to put the safety and security of Coloradans first.

Lessons Learned from this unusual natural event

- Not only were no lives lost during this event, lives were actually saved.
- Our highly dedicated and selfless PSCN team members across the state consistently go above and beyond in times of need.
- The DTRS remains a trusted reliable and resilient communications system for Colorado's first responders statewide.
- With little or no redundancy built into cellular networks, cellular, broadband, and internet services are the first to be negatively impacted in these types of storms, especially in rural areas.



The tables below provide a historical and running tabulation indicating up-to-date replacement of legacy DTRS site (radio) equipment at the state owned DTRS sites since HB14-1203 funding was made available.

H.B. 14-1203 FUNDING ACCOUNTABILITY - DTRS SITE EQUIPMENT REPLACEMENTS

FY 14 SITE REPLACEMENT FUNDING			FY15 SITE REPLACEMENT FUNDING		
Site Name	Area / County	Date completed	Site Name	Area / County	Date completed
Phillips	NE / Phillips	27-August-2015	Bakers Peak	NW / Moffat	29-Oct
Sterling CF	NE / Logan	2-Dec	Vermillion	NW / Moffat	28-Oct
Wray	NE / Yuma	23-Oct	Grouse	NW / Grand	15-Oct
Peetz	NE / Logan	24-Sep	Hayden	NW / Routt	21-Oct
Julesburg	NE / Sedgwick	17-Sep	Rico	SW / Dolores	28-Oct
Yuma	NE / Yuma	2-Oct	Silverton	SW / San Juan	4-Nov
Idalia	NE / Yuma	27-Aug	Coal Bank	SW / San Juan	30-Oct
Buffalo Pass	NW / Jackson	2-Sep	Egnar	SW / San Miguel	6-Nov
Harper Hill	NW / Moffat	19-Aug	Smelter	SW / La Plata	5-Nov
Farwell	NW / Routt	3-Sep	Dolores	SW / Dolores	10-Nov
Grassy	SW / La Plata	11-Nov	Log Hill	SW / Ouray	15-Oct
Abajo Peak	SW / Utah	12-Aug	Sunset Mesa	W / Montrose	18-Nov
La Monte Peak	SW / La Plata	18-Aug	TeePee Park	NW / Rio Blanco	30-Oct
Missionary	SW / La Plata	20-Aug	Sheeps Knob	W / Montrose	14-Oct
Oak Brush Hill	SW / Archuleta	26-Aug	Delta	W / Delta	20-Nov
Sandoval	SW / Archuleta	25-Aug	San Luis	SC / Costilla	27-May-2015
Ute Mtn	SW / Montezuma	19-Aug	Monte Vista	SC / Rio Grande	28-May-2015
King Mtn	NW / Routt	12-Aug	Wolf Creek Pass	SC / Mineral	11-August-2015
Cathedral Bluffs	NW / Rio Blanco	27-Aug	Creede	SC / Mineral	10-August-2015
TV Hill	W / Delta	2-Sep	Methodist	SC / Chaffee	31-Jul-2015
Last Dollar	SW / Telluride	30-Sep	Monarch	SC / Chaffee	30-Jul-2015
Storm King Mtn	W / Montrose	18-Aug	Coaldale	SC / Fremont	10-June-2015
North Mtn	SW / San Miguel	19-Aug	Bald South	SC / Chaffee	29-Jul-2015
W Mtn	SW / Gunnison	14-Aug	Anton	NE / Washington	4-Jun-2015
Coonskin	SW / San Miguel	3-Sep	Last Chance	NE / Washington	11-Mar-2015
Water Dog	W / Montrose	21-Aug			

SITE REPLACEMENTS INCLUDED AS A RESULT OF COST SAVINGS FROM THE SR 7.14 UPGRADE

Akron	NE / Washington	16-Jul	Haswell	SE / Kiowa	12-Aug
Alamosa	SC / Alamosa	26-Aug	Juniper	NW / Moffat	8-Jul
Auraria	Metro / Denver	16-Oct	Kiowa	Metro / Elbert	15-May
Bethune	SE / Kit Carson	30-Sep	La Veta	S / Huerfano	6-Aug
Blue Ridge	NW / Grand	17-Jul	Mines	Metro / Gilpin	28-Jul
Bowen Marker	S / Las Animas	14-Jul	Pooltable	SC / Rio Grande	19-Aug
Cedar Mtn	NW / Moffat	15-Jul	Punkin Center	SE / Lincoln	24-Jul
Cheyenne Mtn	S / El Paso	2-Jun	Raton Pass	S / Las Animas	18-Jul
Dakota	Metro / Gilpin	7-Aug	Reiradon	NE / Logan	14-Oct
Deer Peak	S / Custer	23-Jun	Saguache	S / Saguache	2-Jul
Ft Morgan	NE / Morgan	14-Aug	San Antonio	S / New Mexico	30-Jun
Fowler	SE / Crowley	25-Jun	Walton Peak	NW / Routt	25-Aug

Greenhorn	S / Pueblo	5-Jun		Wildhorse	NE / Sedgwick	30-Oct
Gunbarrel	Metro / Boulder	25-Nov				

Site Replacement FY15 operating funds			State Expansion Sites FY16		
Prospect Mtn	NE/ Larimer	9-Jun-2015	Colorado Springs	SC / El Paso	13-Aug-2015
			Red Table	NW / Eagle	30-Sept-2015

<u>FY16 SITE REPLACEMENT FUNDING</u>					
Table Mtn	NW / Grand	24-Aug-2017	Buena Vista CF	SC / Chaffee	3-Sep-2015
Buckhorn	NE / Larimer	28-Oct-2015	Poncha Springs	SC / Chaffee	2-Sep-2015
Greeley	NE / Weld	8-Aug-2019	Tenderfoot II	SC / Teller	1-Sep-2015
Point of Rocks	NE / Weld	15-Oct-2015	Franktown	NC / Douglas	23-Oct-2015
Betasso	NC / Boulder	26-Oct-2015	DRDC CF	NC / Denver	26-Jan-2016
Mead	NC / Boulder	30-Sep-2015	Lamar	SE / Prowers	26-May-2016
Ajax	NW / Pitkin	10-Aug-2015	Holly	SE / Prowers	25-May-2016
Lake Hill	NW / Summit	13-Oct-2015	Firstview	NE / Cheyenne	1-Jun-2016
Ramah	NC / Elbert	30-Jul-2015	Dakota (+2)	Metro/Gilpin	29-Jun-2016
Boyero	NE / Lincoln	15-Sep-2015	Deer Peak (+2)	SE / Custer	28-Jun-2016
Limon CF	NE / Lincoln	25-Aug-2015	Storm King (+1)	SW / Montrose	22-Jun-2016
Hugo	NE / Lincoln	17-Sep-2015	Monte Vista (+1)	SLV / Rio Grande	20-Jun-2016

<u>FY17 SITE REPLACEMENT FUNDING</u>					
Rose Ridge	SW / Gunnison	31-Aug-2016	Sheridan Lake	SE / Kiowa	9-Feb-2017
					1-Nov-2016
Crested Butte	SW / Gunnison	30-Aug-2016	Ft. Lyon	SE / Bent	
Whitewater (+1)	W / Mesa	4-Aug-2016	Toonerville	SE / Bent	21-Mar-2017
Sunlight	W / Garfield	11-Aug-2016	Verdemont	S / Custer	1-Mar-2017
Castle Peak (+2)	W / Garfield	9-Aug-2016	Carlton	SE / Prowers	8-Feb-2017

Badger (+3)	SC / Park	5-Oct-2016	Springfield (+1)	SE / Baca	7-Feb-2017
Sacramento (+1)	SC / Park	2-Nov-2016	<u>SITE CHANNEL EXPANSION to improve radio traffic capacity</u>		
Mt. Bailey (+1)	SC / Park	14-Sep-2016	Akron (+1)	NE / Washington	12-Aug-2016
Mr. Carmel	SE / Baca	17-Nov-2016	Abajo (+1)	SW / Utah	24-Aug-2016
Kim	SE / Las Animas	15-Nov-2016	Ute Mtn (+1)	SW / Montezuma	23-Aug-2016
Valley	SE / Otero	3-Nov-2016	Loveland Ski (+1)	NW / Summit	29-Aug-2016
<u>State & State Partnering Expansion Sites FY17</u>			Poncha Spgs (+1)	SC / Chaffee	22-Aug-2016
Comstock	SW / Gunnison	17-Aug-2016	Eldora (+6)	NC / Boulder	12-Oct-2016
Caviness	SW / Montezuma	7-Oct-2016	Greenhorn (+2)	S / Pueblo	2-Dec-2016
Toonerville-aircraft	SE / Bent	21-Mar-2017	Hugo (+1)	SE / Lincoln	4-Oct-2016
			Sheeps Knob (+1)	SW / Montrose	25-Aug-2016
			W Mtn (+1)	SW / Gunnison	26-Aug-2016
<u>FY18 SITE REPLACEMENT FUNDING</u>					
Cordova Pass	SE / Las Animas	10-Aug-2017	<u>SITE CHANNEL EXPANSION to improve radio traffic capacity</u>		
Hill 71	SW / Hinsdale	16-Aug-2017	Mead (+6)	NE / Weld	14-Jul-2017
Arkansas Valley CF	SE / Crowley	8-Aug-2017	Mines (+1)	NW / Grand	17-Jul-2017
Trinidad CF	SE / Las Animas	9-Aug-2017	Gunbarrel (+1)	MET / Boulder	14-Jul-2017
Copper Mtn	NW / Summit	3-Aug-2017	Franktown (+1)	MET / Elbert	25-Aug-2017
Tyrollean	NW / Summit	9-Aug-2017	Fowler (+2)	SE / Crowley	31-Jul-2017
Grand Mesa	NW / Mesa	Pending County	Specie Mesa (+1)	SW / San Miguel	20-Jul-2017
Bald North	NE / Larimer	31-Aug-2017	Tenderfoot II (+1)	SC / Teller	18-Jul-2017
Arapahoe Admin	MET / Arapahoe	Pending County	Denver TX Building	MET / Denver	30-Aug-2017
Lookout	MET / Jefferson	3-June-2018	Thorodin	MET / Jefferson	5-Oct-2017
Riley Peak	MET / Jefferson	28-Aug-2017	Walsenburg DTRS	S / Huerfano	1-Aug-2017
Smoky Hill	MET / Arapahoe	19-Oct-2017			
<u>State Expansion Sites FY18</u>					
Walsenburg Air	S / Huerfano	1-Aug-2017			
Pueblo Air	S / Pueblo	7-Sep-2017			

Cinnamon Creek	NW / Garfield	31-Aug-2017		
FY19 SITE REPLACEMENT & CHANNEL EXPANSION TO IMPROVE CAPACITY				
Gardner (replace)	S / Huerfano	26-Oct-18	Phillips +1	NE / Phillips 19-Sep-18
Raspberry (replace)	W / Montrose	16-Oct-18	Peetz +1	NE / Logan 20-Sep-18
Gobblers Knob (replace)	W / Montrose	22-Oct-18	Reiradon +1	NE / Logan 21-Sep-18
LaJunta (replace)	SE / Otero	23-Jan-19	Sterling CF +1	NE / Logan 21-Sep-18
Marble (replace)	W / Gunnison	18-Jun-19	Verdemont +1	S / Custer 24-Oct-18
Emerald (replace)	NW / Routt	14-Aug-19	Cordova Pass +1	S / Las Animas 23-Oct-18
Hayden +1	NW / Routt	28-Aug-18	Coaldale +1	SLV / Fremont 24-Aug-18
Cathedral +1	NW / Rio Blanco	29-Aug-18	Monarch Pass +1	SE / Chaffee 24-Aug-18
Tank Hill +1	W / Delta	30-Aug-18	Loghill +1	W / Ouray 25-Sep-18
TV Hill +1	W / Delta	31-Aug-18	Coonskin +1	SW / San Miguel 24-Sep-18
Delta +1	W / Delta	30-Aug-18	North Mountain +1	SW / San Miguel 25-Sep-18
Carlton +1	SE / Prowers	17-Sep-18	Bald South +1	SE / Chaffee 19-Oct-18
Bethune +1	NE / Kit Carson	18-Sep-18	Water Dog +1	W / Montrose 26-Sep-18
Wray +1	NE / Yuma	18-Sep-18	Storm King +1	W / Montrose 27-Sep-18
Yuma +1	NE / Yuma	20-Sep-18	Point of Rocks +1	NE / Weld 3-Dec-18
Wildhorse +1	NE / Sedgwick	19-Sep-18	Fort Morgan +1	NE / Morgan 28-Nov-18
Sunset Mesa +1	W / Montrose	21-Nov-18	Alamosa +1	SLV / Alamosa 14-Nov-18
Bowen Marker +1	S / Las Animas	25-Oct-18	Pooltable +1	SLV / Rio Grande 15-Nov-18
Smelter +2	SW / La Plata	20-Nov-18	La Veta Pass +1	S / Las Animas 23-Oct-18
Blue Ridge +1	NW / Grand	27-Aug-18	Grouse +1	NW / Grand 27-Aug-18
Walton +1	NW / Grand	28-Aug-18	Verdemont +1	SE / Custer 24 Oct 18
Black Hawk +1	NC / Gilpin	6-Jun-19	Raspberry Ridge +1	W / Montrose 15-Aug-19
Gardner +1	SE / Huerfano	5-Jun-19	Sunset Mesa +1	W / Montrose 13-Aug-19
Copper +1	NW / Summit	19-Aug-19	Storm King +1	W / Montrose 14-Aug-19
Lake Hill +1	NW / Summit	6-Jun-19	Waterdog +1	W / Ouray 14-Aug-19
Wolf Creek Pass +1	SLV - Mineral	1-Aug-19	Whitewater +1	W / Mesa 12-Aug-19

Deer Peak +1	SE / Custer	31-Jul-19		Grand Mesa +1	W / Mesa	13-Aug-19
Haswell +1	SE / Kiowa	4-Jun-19		San Luis +1	SLV / Costilla	3-Jul-19
Firstview +1	SE / Cheyenne	4-Jun-19		Gobblers Knob +1	W / Montrose	15-Aug-19
Missionary +2	SW / La Plata	16-Aug-19		Buena Vista CF +1	SE – Chaffee	25-Jun-19
San Antonio Pk +2	S / New Mexico	2-Jul-19		Monte Vista +1	SLV / Rio Grande	1-Jul-19
Methodist +2	SE / Chaffee	Pending tower				
FY19 SITE EXPANSIONS (NEW SITES)						
Stadtman Mesa	NW / Rio Blanco	22-Oct-18		Folsom Field	Metro / Boulder	5-Apr-19
Cortez	SW / Montezuma	10-Jul-19		Yuma Air	NE / Yuma	Pending tower
Flagler	NE / Kit Carson	14-May-19		Walden Air	NW / Pitkin	Pending tower
Walden	NW / Jackson	Pending tower		Methodist Air	SE / Chaffee	Pending tower
Cedar Point	SE / Elbert	12-Apr-19				
FY19 – HB18-1325 ‘DTRS COVERAGE GAP’ SITE ADDITIONS						
Dory Hill	MET / Gilpin	23-Apr-19		Saxon Mtn	MET / Clear Creek	18-Oct-19
Bellevue Mtn	MET / Clear Creek	16-Oct-19		Silo Elbert	MET / Elbert	27-Feb-19
Chromo	SW / Archuleta	Pending bld delivery		Lake Ridge	NW / Grand	Pending site ready

It is important to note that PSCN engineering and technical staff provide all services related to DTRS equipment ordering, receipt and inventory, pre-staging, distribution, site preparation, and all installation services on these sites. The PSCN has currently provided these services at 165 DTRS sites, with an increasing number of site equipment replacements being scheduled annually. Vendor quotes for these services average \$100,000 per site. This equates to the PSCN providing estimated cost savings of \$16.5 million for Colorado taxpayers on state owned DTRS sites. As previously stated, the PSCN assists local governments with similar services where requested in an effort to promote growth of the DTRS and to foster valued partnerships.

FUTURE FUNDING - CURRENTLY SCHEDULED OR PLANNED

- HB 14-1203 FY20 funding will continue to be directly applied toward continued compliance of the DTRS radios and site upgrades. DTRS hardening and redundancy are always top priorities and will continue to be aggressively addressed. New sites are constantly being explored to continue to expand the coverage footprint for the DTRS. The PSCN is exploring a DTRS software feature

to enable Over the Air Programming (OTAP), to provide a greater level of system security. Additionally, OTAP will permit PSCN staff to remotely provide mobile and portable radio programming to thousands of radios, without having to physically touch every radio. This saves hundreds of staff hours.

- The final phases for the replacement of the state public safety microwave backhaul network will continue to be aggressively addressed until the project is completed and fully integrated. We continue to work closely with local governments, as requested, to offer technical and engineering support as they consider replacement or upgrade of their links of microwave backhaul in concert with the state replacement project.
- Tower replacements will continue with priority given to the oldest and most critically overloaded towers, as OSA Controlled Maintenance funding is made available.

CHALLENGES - CURRENT and MOST PRESSING

- The PSCN continues encounter challenges related to CDOT relocating their headquarters, and selling their former headquarters at 4201 E. Arkansas Avenue in Denver to private developers. OIT was deeded a very small portion of the property on which the PSCN Denver Transmitter Building (DTB) resides. The OIT-PSCN has a critical presence at this site. The site includes a microwave relay tower providing microwave connectivity for seven adjacent DTRS sites in the ten county Denver metropolitan area. Each of those seven DTRS sites provides microwave connectivity to adjacent sites across the area and eventually throughout the state. The site hosts a 15-channel DTRS site and associated DTRS antennas, and the DTRS Master Zone Controller #1, which serves as the “Core” of the DTRS. DTB is also a point of presence for multiple fiber connections.

The property transaction was completed without consideration for code compliance, including basic staff requirements at the site. The building at DTB does not currently meet code for occupancy. The building must be remodeled to add restrooms and office space for PSCN staff. The small portion of the property deeded to OIT-PSCN does not include enough property to permit building remodel, nor does it include enough property for staff parking and building protections.

The potential for interruption in public safety communications provided by the DTRS is of serious concern as the land developer begins construction. While the developer is keenly aware of the need to protect the microwave paths, the movement of cranes and construction materials through microwave paths, even momentary and unintentional, will disrupt first responder communications. Additionally, the developer is pressuring PSCN to replace the communications tower located on the property with a tower of greater height. The developer ultimately desires the seven microwave dish antennas be moved to the uppermost height of the new communications tower in order to permit development to greater heights on the property. Interruption in public safety communications provided by the DTRS is always our uppermost concern and we remain vigilant in protecting uninterrupted service.

- As reported previously, private property tower lease and easement costs continue to escalate. The PSCN administrative staff negotiates with private property landowners to receive the best and lowest possible lease costs. Unfortunately, landowners are becoming less flexible in accommodating our requests and continue to press for higher lease rates. The PSCN anticipates

a need to seek high-level guidance in developing and deploying a formula for tower leases that would be considered fair and equitable to our landowners and to our taxpayers.

CONCLUSIONS

This annual report demonstrates the ongoing evidence of the PSCN team's commitment, dedication, motivation, and capability to support, maintain, plan, and execute growth of the statewide public safety communications systems. Nine (9) new DTRS sites were added over the past year and six (6) more sites are approved and pending installation.

Funding initiatives and appropriations in support of public safety communications systems remains consistently focused on needed replacements, upgrades, and improvements of our state radio systems. Our PSCN teams handle the rigorous demands required to complete all installations and deployment of equipment replacements and software upgrades to provide improved system coverage and reliability.

In addition to the technical and operational sustainability of these critical public safety communications systems, the PSCN acts as the Emergency Service Function (ESF) 2 at the State Emergency Operations Center during times of activation. PSCN team members remain actively engaged in a number of public safety communications organizations, users groups, committees and subcommittees. Among those organizations and committees is the Homeland Security Advisory Council (HSAC), the Public Safety Communications Sub-committee of the HSAC (created through SB 14-127), the School Access for Emergency Response Grant Program (SAFER Bill created through SB 18-158) grant review committee, the Consolidated Communications Network of Colorado, Inc. (CCNC), the Metro Area Regional Communications (MARC), FEMA Region VIII Regional Emergency Communication Coordination Working Group (RECCWG), All Hazards Regional Communications Committees, and various other groups. Actively participating in these committees and organizations aids us in keeping aware of and engaged in addressing our state public safety communications needs, as well as the local government issues surrounding needs for improved coverage.

APPENDIX F

INFORMATION TECHNOLOGY ASSET REPORT

(SB 14-169)

Senate Bill 14-169, sponsored by the Joint Budget Committee, requires the Governor's Office of Information Technology (OIT) to submit a report to the Joint Budget Committee and the Joint Technology Committee regarding the agency's information technology asset inventory and the asset refresh cycle schedules, including cost projections.

The following pages include the November 1, 2019 report in its entirety.



COLORADO

Chief Information Officer &
Executive Director

Governor's Office of Information Technology

Theresa Szczurek, Ph.D.
601 East 18th Avenue, Suite 130
Denver, CO 80203

November 1, 2019

Honorable Senator Dominick Moreno, Chair
Joint Budget Committee
Colorado General Assembly
200 East 14th Avenue, Third Floor
Legislative Services Building
Denver, Colorado 80203

RE: Senate Bill 14-169 - OIT's Asset Inventory and Refresh Cycle Report

Dear Honorable Senator Moreno:

Pursuant to Senate Bill 14-169, OIT is required to submit a report to the Joint Budget Committee and the Joint Technology Committee of the General Assembly regarding asset inventory and refresh cycle information. For the 2019 report, OIT has organized the report into four parts: Part A - For personal computers, including operating systems and productivity software; Part B - For network infrastructure; and Part C - For server infrastructure; and Part D - For non-productivity software.

Attached please find OIT's report which includes an Executive Summary, Report Detail, Explanation of Methodology, and an Asset Inventory Summary by Agency.

Thank you for providing us with an opportunity to submit this important information. As always, please contact us with any questions, concerns, or requests for follow-up information.

Sincerely,

Theresa Szczurek, Ph.D.
Chief Information Officer & Executive Director

cc: Members of the Joint Budget Committee
Members of the Joint Technology Committee
Justin Derdowski, Office of State Planning and Budgeting





COLORADO

**Governor's Office of
Information Technology**

Serving people serving Colorado

Asset Inventory and Refresh Cycle Report - SB14-169

November 1, 2019

Governor's Office of Information Technology

Introduction

This report is provided in accordance with Senate Bill 14-169 as codified in C.R.S. §24-37.5-801(1):

24-37.5-801 - Information technology asset inventory - refresh cycle schedule - report.

(1) On or before November 1, 2014, and on or before November 1 each year thereafter, the Office shall submit a report to the members of the Joint Budget Committee and the Joint Technology Committee of the General Assembly regarding the Office's Information Technology Asset Inventory and the Office's Refresh Cycle Schedule, including cost projections. The Office shall phase in the information to be included in the report over four years as follows:

(a) In the report due on or before November 1, 2014, the Office shall include asset inventory and refresh cycle information for personal computers, including operating systems and productivity software.

(b) In the report due on or before November 1, 2015, the office shall include the information specified in paragraph (a) of this subsection (1) and asset inventory and refresh cycle schedule information for network infrastructure.

(c) In the report due on or before November 1, 2016, the office shall include the information specified in paragraph (b) of this subsection (1) and asset inventory and refresh cycle information for servers.

(d) In the report due on or before november 1, 2017, and in the report due on or before November 1 each year thereafter, the office shall include the information specified in paragraph (c) of this subsection (1) and asset inventory and refresh cycle information for non productivity software.

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Part A - Personal Computers Report

Section I - Executive Summary

The report asset inventory and refresh cycle information for Part A, personal computers, including the operating systems, and productivity software; and Part D, nonproductivity software on state computers for the agencies supported by the Office of Information Technology (OIT).

Part A: *Personal computer* data included:

- Count of computers by type
- Operating System
- Fiscal Year of Acquisition
- Productivity Software
- Proposed Fiscal Year Hardware Refresh
 - includes standard or high end computer model configuration
 - assumed 4 year lifecycle refresh plan for computers, laptops and tablets, except CDHS which has a 3 year lease agreement
- Recommended professional services
- Recommended project planning

Part A: Personal computer estimated costs are based on the following chart.

	Current FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24
Standard Desktop	\$826	\$834	\$842	\$851	\$860
Standard Laptop	\$1,052	\$1,063	\$1,073	\$1,084	\$1,095
High End Desktop	\$1,276	\$1,288	\$1,301	\$1,314	\$1,327
High End Laptop	\$1,618	\$1,635	\$1,651	\$1,667	\$1,684
Tablet Computer	\$1,712	\$1,730	\$1,747	\$1,764	\$1,800
Productivity*	Microsoft ETLA \$155/year/user				
Google Apps	Actual charges per agency				

*Clarification of inclusions later in the document

Section II - Data Detail

Trends:

- The state did not see an increase in hardware costs but anticipate seeing a sizeable increase next year if the predictions about the trade tariffs become reality.

- In the November 2018 report, OIT projected seeing Windows tablets (i.e. Microsoft Surface, HP ElitePad, Dell Venue) enter the workforce more rapidly. At that time the tablets were becoming more popular and we expect them to eventually become the primary computing device and a refresh eligible item. With the November 2019 report, we did see a large increase in tablet computers. We expect to continue seeing this trend of increased tablet computers, due to the portability and lighter weight.
- Lottery computers have been included starting this year and we will need to determine the impact to our trends over the next year.

Inclusions:

- Computers in areas that are not assigned to an FTE but used for business (i.e. Kiosk computers for citizens to obtain state services in common areas, loaner equipment used by agencies for staff who are not normally working remote, but need to be remote for a short time, training rooms and labs used by agencies, test computers used for testing agency applications, etc)
- Windows Tablets are included in the inventory and now added to the refresh costs, as they are beginning to become used as primary devices for some users.

Exclusions:

- Federally owned computers provided to state employees where the federal program purchases, supports and maintains the computers.
- CDOC Inmate computers were included in the inventory numbers, but not included in the refresh cycle as this network is being moved to a virtual desktop environment where the computers will not need to be updated for several years, at the discretion of the agency, and the computers still in the closed CSP II facility are no longer used.

Personal Computer - OIT supported agency’s inventory summary:

Computers Statewide (Includes DOC Inmate network computers)	38,765
Computers eligible for ongoing refresh (excludes DOC Inmate computers)	36,923
Operating System versions	5
Productivity Software - Office	10
Productivity Software - Adobe	4
Less than 5 years old (All computers - DOC Inmate and >5 yr old computers)	32,426
Greater than 5 years old	4,497

Personal Computer - Projected refresh costs summary by FY:

Fiscal Year	Number of				Projected Costs (computer, software, contractor)
	Desktops	Laptops	Tablets	Contractor hours	
FY 2019-20	5,271	1,595	237	11,180	\$16,576,941
↳ <i>Greater than 5 Yrs old</i> *	3,195	1,131	171	11,243	\$5,407,552
↳ <i>Current FY refresh</i>	2,076	464	66	6,350	\$11,169,389
FY 2020-21	4,675	4,143	1,350	25,420	\$20,927,525
FY 2021-22	4,676	4,146	1,346	23,663	\$ 21,151,883
FY 2022-23	4,675	4,142	1,344	23,673	\$ 21,260,551
FY 2023-24	4,673	4,146	1,346	23,663	\$ 21,414,500

*Software costs were not included for Greater than 5 year old computers as the software is accounted for in the Current FY numbers, including them would double the software cost.

- Proposed Fiscal Year Hardware Refresh
 - Majority is based on a 4 year refresh cycle.
 - “>5 Year Refresh” numbers are based on those machines older than 5 years as of Sept 15, 2019.
 - FY 2020-21 numbers are based on the computers eligible for refresh as of September 15, 2019 using the 4 year refresh cycle.
 - Both >5 Year and FY 2019-20 numbers do not take into account agency spending decisions/planning that may be occurring since most agencies are actively working on refreshing equipment in these categories.
 - FY 2020-21 through FY 2023-24 are proposed refresh numbers based on the total number of computers using a 4 year refresh cycle, replacing ¼ of all devices per year with the following exception:
 - CDHS has a lease agreement that is funded for a three (3) year replacement cycle per the terms of the lease, and has been calculated for that.
 - Hardware cost estimates are based on the agency's need for standard equipment or high end equipment and averaged between the vendors based on the average cost per agency for the type of equipment. If an agency has a

greater than 50% need of higher end equipment for their customers the cost for the refresh is calculated at the “High End” cost for that type of device.

- Standard equipment is defined as standard office computing where special high level processing or graphics cards are not required for day to day business.
- High end equipment is defined where more technical high end processor, dual processors, graphics or specialized hardware are needed in order to do day to day business (GIS processing, specialized equipment for patrol cars, rugged devices, graphics intense programs).
- Desktop calculations include the computer (CPU), monitor, keyboard, mouse, onsite warranty and all cables. Laptop calculations include laptop, docking station, all cables, warranty and carrying case.
- There has been no projected cost increase in the hardware costs due to possible tariff increases.
- A 1% increase per year was added which will include inflation costs in hardware each year, and will also allow for the increased cost in the trend of moving desktops to laptops as some agencies are seeing.
- There are no increases calculated for staff growth as staff growth is typically a new program and/or legislation, costs for hardware and refresh budget should be calculated in and added to the budget as legislation request happens.
- Recommended professional services
 - Professional services is calculated at the average number of 2 hours per computer to image, deploy, replace and process the old hardware, plus .5 hours for travel and training of contractors for one year at the current contracted rate of \$40 per hour.
- Recommended project planning
 - Upon approval of proposed refresh cycles, the Deskside team would work together to plan agency refreshes based on work loads, season (for travelling) and professional service availability.
 - The contractors would be handled as a team to travel around and work with the agencies to assist with the refreshes as the agencies are scheduled.
 - It is intended that the contractor team would be split so multiple agency refreshes could be happening at the same time.

Section III - Methodology

The following methodology was used for calculating costs

(All examples are using CDA or CDOR data for FY 2019-20):

Cost title	Assumptions	Methodology Formula
Hardware Refresh costs	<p>Quotes from the two primary hardware vendors were obtained for like models and the costs were averaged for each configuration of desktops and laptops. 1% increase in costs per year to offset the cost differential on trend of moving desktops to laptops or tablets and inflation.</p> <p>NOTE: If a refresh plan were mandated or funded, this averaged number would not be sufficient for agencies where specialized equipment is needed. If a mandate or funding is received, a more detailed cost would need to be done per agency based on those needs.</p>	<p>$(\text{Vendor A cost} + \text{Vendor B cost}) / 2 = \text{Hardware refresh cost} + 1\% \text{ increase inflation per year.}$</p> <p><i>Example (CDA):</i> Standard desktop configuration $33 \times 834 = 27,522$</p> <p>High end laptop configuration $39 \times 1635 = 63,765$</p> <p>Standard tablet configuration $20 \times 1730 = 34,600$</p> <p>$27,522 + 63,765 + 34,600 = 125,887$</p>
Google email and apps cost	<p>Estimates provided for the various Google Modules. Projected cost only goes out one year.</p>	<p>Google average cost per year x All devices using Google apps = Google productivity apps cost per year.</p>
Microsoft Office Suite cost	<p>Quote from software vendor.</p> <ul style="list-style-type: none"> Only one agency, History Colorado, has not moved to the Microsoft Enterprise License Agreement (ETLA), and is calculated with no software assurance. An updated software version would have to be purchased for new devices, plus required client access licenses. Agencies with an ELA are calculated at the cost based on the Microsoft Enterprise agreement. Most license costs are per user, and one user can have multiple devices. <p><i>Cost includes Office Pro Plus, CAL licenses, Windows Enterprise upgrade and Mobility suite.</i></p>	<p>Example (Hist-no ETLA): $53 \text{ devices} \times 338 \text{ Non-ELA} = \\$17,914$</p> <p>Example (CDOR): $1366 \text{ devices} \times 155 \text{ ETLA per year/user} = \\$211,730$</p>
Operating System software costs	<p>Operating System software is included in the office cost as part of the ELA, and as</p>	<p>No separate calculation - included with Microsoft or</p>

	part of the computer purchase if not part of the ELA	Computer cost.
Professional Services Hours	<p>The contract for a professional services provider is being rebid.</p> <p>Current rate paid: \$40 per hour</p> <p>Average computer build time = 2 hrs, plus .5 hours for training and travel</p>	<p>(Average hours of work per computer to refresh x contractor rate) = Hours of work per year</p> <p><i>Example FY 2019-20:</i> 9469 computers x 2.5 hours = 23,673 hours 23,673 hrs x 40= 946,920</p>
Professional Services Number of Employees	2080 working hours in a year - rounded up to account for sick and vacation time of contract staff.	<p>Professional Services Hours / 2080 = Number of contractors (rounded up to whole number)</p> <p><i>Example FY 2017-18:</i> 23,673 hours / 2080 = 12 rounded up to whole person</p>

Appendix A - Asset Inventory Summary by Agency

Agency	Device Type Totals				Operating System				
	Desktop	Laptop	Windows Tablets	Total Devices	MacOS	Windows XP	Windows 7	Windows 8	Windows 10
CDA	131	156	79	366	0	0	95	0	274
CDHS	1611	2121	880	4612	0	0	485	0	4127
CNTY	3732	2156	717	6605	0	0	5889	0	716
CDLE	1661	707	35	2403	13	0	1811	4	575
CDOR	1717	793	80	2590	0	0	618	0	1972
CSTARS	1377	0	0	1377	0	0	945	0	432
CDOT	20	2118	2151	4289	8	0	0	0	4281
CDPHE	474	1334	226	2034	13	3	535	0	1483
CDPS	318	1014	570	1902	0	1	787	1	1122
CEO	4	8	12	24	0	0	7	0	17
DMVA	41	0	0	41	0	0	0	0	41
DNR	600	1402	41	2043	1	0	308	0	1735
DOC	3818	593	0	4411	0	4	688	0	3719
INMATE	1840	2	0	1842	0	1051	791	0	0
DOLA	352	511	2	865	0	0	263	0	602
DORA	352	511	2	865	0	0	263	0	602
DPA	357	179	6	542	0	0	95	0	446
GOV	95	124	26	245	0	0	62	5	178
HCPF	12	697	0	709	0	0	73	0	636
HIST	97	132	16	245	0	0	17	0	228
OEDIT	14	55	4	73	0	0	23	0	50
OITHQ	107	532	7	646	0	0	75	1	569
TREAS	28	8	0	36	0	0	15	0	21
Totals	18758	15153	4854	38765	35	1059	13845	11	23826

SB14-169 Asset Inventory and Refresh Cycle Report

Agency	Productivity Suite Software											Adobe Acrobat			
	Apple iWork	Mac Office	Google Apps	MS Office XP	MS Office 2000	MS Office 2003	MS Office 2007	MS Office 2010	MS Office 2013	MS Office 2016	MS O365	Acrobat Pro X and older	Acrobat Pro XI	Acrobat DC & DC 2015	Acrobat DC 2017
CDA	0	0	0	0	0	0	1	56	130	186	0	25	27	0	0
CDHS	0	0	0	0	0	0	0	5343	0	0	0	21	166	205	223
CNTY	0	6605	4476	0	0	0	0	4745	0	46	0	0	0	928	0
CDLE	0	13	0	0	0	0	0	1811	0	579	0	30	114	1	261
CDOR	0	0	0	0	0	2	0	1533	0	177	0	38	87	298	39
CSTARS	0	0	0	0	0	0	0	1377	0	0	0	0	0	0	0
CDOT	0	8	0	0	0	0	0	0	0	4281	0	0	0	0	4281
CDPHE	13	0	0	0	0	0	44	20	913	1043	0	33	11	321	1756
CDPS	0	0	0	0	0	0	12	238	596	1050	0	4	408	12	0
CEO	0	0	0	0	0	0	0	0	1	23	0	3	0	3	3
DMVA	0	0	0	0	0	0	0	17	0	24	0	0	0	6	0
DNR	0	0	2043	0	0	2	374	76	109	1482	0	144	230	198	197
DOC	0	0	0	2770	0	0	13	66	714	770	1	88	280	93	0
INMATE	0	0	0	99	0	0	0	1	793	0	0	0	0	0	0
DOLA	0	0	0	0	0	0	2	247	12	604	0	152	334	15	46
DORA	0	0	0	0	0	0	2	247	12	604	0	152	334	15	46
DPA	0	0	0	0	0	0	91	0	11	441	0	84	23	71	0
GOV	0	0	0	0	0	0	54	1	4	186	0	51	10	64	0
HCPF	0	0	0	0	0	0	0	0	0	709	0	0	2	118	71
HIST	0	0	0	0	0	0	11	1	2	232	0	2	1	105	0
OEDIT	0	0	0	0	0	0	0	1	21	51	0	0	6	29	9
OITHQ	0	0	0	0	0	2	63	1	11	570	0	13	19	102	0
TREAS	0	0	0	0	0	0	5	4	6	21	0	1	0	5	0
Totals	13	6626	6519	2869	0	6	672	15785	3335	13079	1	841	2052	2589	6932

Appendix B - Projected Refresh Cost Summary FY 2018-19

State of Colorado									
SB 14-169 Personal Computer Annual Report									
Proposed Refresh Cost Summary By Agency									
as of September 15, 2019									
Agency	Configuration				FY 2019-20				
	Desktop	Laptop	Tablet	MS ETLA	Desktop	Laptop	Tablet	Hardware Refresh Cost	Software Refresh Cost
CDA *	S	H	S	Yes	33	39	20	\$125,887	\$85,069
CDHS	S	S	S	Yes	537	707	294	\$1,708,019	\$1,183,606
CNTY	S	S	S	Yes	1244	718	239	\$2,214,200	\$1,023,775
CDLE *	H	S	S	Yes	416	176	9	\$738,466	\$524,816
CDOR	S	S	S	Yes	429	198	20	\$602,860	\$546,884
CSTARS	S	S	S	Yes	345	0	0	\$287,730	\$213,435
CDOT *	H	S	S	Yes	5	529	538	\$1,499,507	\$935,949
CDPHE	S	S	S	Yes	118	334	57	\$552,064	\$489,453
CDPS *	H	H	S	Yes	80	253	143	\$764,085	\$476,773
CEO	S	S	S	Yes	1	2	3	\$8,150	\$3,720
DMVA	S	S	S	Yes	10	0	0	\$8,340	\$8,156
DNR	H	H	S	Yes	150	351	10	\$784,385	\$520,671
DOC	S	S	S	Yes	954	149	0	\$954,023	\$1,234,053
INMA TE	S	S	S	Yes	0	0	0	\$0	\$285,510
DOLA	S	H	S	Yes	88	128	1	\$284,402	\$152,560
DORA *	S	S	S	Yes	88	128	1	\$211,186	\$190,449
DPA	S	S	S	Yes	89	44	1	\$122,728	\$123,172
GOV	S	S	S	Yes	24	31	7	\$65,079	\$58,248
HCPF *	S	H	S	Yes	3	174	0	\$286,992	\$162,053
HIST	S	S	S	No	25	33	4	\$62,849	\$20,956
OEDIT	S	S	S	Yes	3	14	1	\$19,114	\$11,315
OITHQ	H	H	S	Yes	26	133	2	\$254,403	\$205,849
TREAS	S	S	S	Yes	7	2	0	\$7,964	\$8,269
Column Totals					4675	4143	1350	\$ 11,562,433	\$ 8,464,741
Hardware Refresh Detail					Desktop: \$4,166,200				
					Laptop: \$4,968,584				
Software Refresh Detail					Tablet: \$2,311,200				
					\$11,445,984				
Professional Services					Google Apps: \$2,473,185				
					Productivity Suite \$ 5,991,556				
Grand Total					Service Hours: 25,420				
					Staff #: 13				
					Cost: \$ 20,927,525				

*Agencies who have Microsoft Enterprise Agreements will not need to repurchase the MS Office Suite

Configuration: S = Standard configuration; H = High-end configuration

Proposed Refresh Cost Summary By Agency as of September 15, 2019											
Agency	FY 2020-21					Agency	FY 2021-22				
	Desktop	Laptop	Tablet	Hardware Refresh Cost	Software Refresh Cost		Desktop	Laptop	Tablet	Hardware Refresh Cost	Software Refresh Cost
CDA *	33	39	20	\$127,115	\$85,069	CDA *	33	39	19	\$126,612	\$85,069
CDHS	537	707	293	\$1,722,636	\$1,183,606	CDHS	537	707	293	\$1,740,227	\$1,183,606
CNTY	1244	719	239	\$2,236,468	\$1,023,775	CNTY	1244	719	239	\$2,259,636	\$1,023,775
CDLE *	415	177	9	\$745,559	\$524,816	CDLE *	415	177	9	\$753,054	\$524,816
CDOR	429	198	20	\$608,612	\$546,884	CDOR	430	198	20	\$615,842	\$546,884
CSTARS	344	0	0	\$289,648	\$213,435	CSTARS	344	0	0	\$292,744	\$213,435
CDOT *	5	530	537	\$1,513,334	\$935,949	CDOT *	5	530	538	\$1,530,122	\$935,949
CDPHE	119	334	57	\$558,159	\$489,453	CDPHE	119	333	56	\$561,025	\$489,453
CDPS *	79	253	143	\$770,303	\$476,773	CDPS *	79	254	142	\$777,712	\$476,773
CEO	1	2	3	\$8,229	\$3,720	CEO	1	2	3	\$8,311	\$3,720
DMVA	11	0	0	\$9,262	\$8,156	DMVA	10	0	0	\$8,510	\$8,156
DNR	150	350	11	\$792,217	\$520,671	DNR	150	350	10	\$798,190	\$520,671
DOC	954	148	0	\$962,072	\$1,234,053	DOC	955	148	0	\$973,137	\$1,234,053
INMA TE	0	0	0	\$0	\$285,510	INMA TE	0	0	0	\$0	\$285,510
DOLA	88	128	0	\$285,424	\$152,560	DOLA	88	127	0	\$286,597	\$152,560
DORA *	88	128	0	\$211,440	\$190,449	DORA *	88	127	0	\$212,556	\$190,449
DPA	90	45	1	\$125,812	\$123,172	DPA	89	45	2	\$128,047	\$123,172
GOV	24	31	7	\$65,700	\$58,248	GOV	23	31	6	\$63,761	\$58,248
HCPF *	3	175	0	\$291,451	\$162,053	HCPF *	3	174	0	\$292,611	\$162,053
HIST	24	33	4	\$62,605	\$20,618	HIST	24	33	4	\$63,252	\$20,618
OEDIT	4	14	1	\$20,137	\$11,315	OEDIT	4	13	1	\$19,260	\$11,315
OITHQ	27	133	1	\$256,457	\$205,849	OITHQ	27	133	2	\$260,717	\$205,849
TREAS	7	2	0	\$8,040	\$8,269	TREAS	7	2	0	\$8,125	\$8,269
	4676	4146	1346	\$ 11,670,680	\$ 8,464,403		4675	4142	1344	\$ 11,780,048	\$ 8,464,403
			Desktop:	\$4,247,476					Desktop:	\$4,291,413	
			Laptop:	\$5,071,742					Laptop:	\$5,117,819	
			Tablet:	\$2,351,462	\$11,670,680				Tablet:	\$2,370,816	\$11,780,048
			Google Apps:	\$2,473,185					Google Apps:	\$2,473,185	
			Productivity Suite	\$ 5,991,218	\$8,464,403				Productivity Suite	\$ 5,991,218	\$8,464,403
			Service Hours:	25,420					Service Hours:	25,403	
			Staff #:	13	\$1,016,800				Staff #:	13	\$1,016,100
Grand Total				Cost	\$ 21,151,883	Grand Total				Cost:	\$ 21,260,551

*Agencies who have Microsoft Enterprise Agreements will not need to repurchase the MS Office Suite

Proposed Refresh Cost Summary By Agency as of September 15, 2019					
Agency	FY 2022-23				
	Desktop	Laptop	Tablet	Hardware Refresh Cost	Software Refresh Cost
CDA *	32	39	20	\$129,196	\$85,069
CDHS	0	0	0	\$0	\$1,183,606
CNTY	1244	719	239	\$2,287,345	\$1,023,775
CDLE *	415	177	8	\$758,920	\$524,816
CDOR	429	199	20	\$622,845	\$546,884
CSTARS	344	0	0	\$295,840	\$213,435
CDOT *	5	529	538	\$1,554,290	\$935,949
CDPHE	118	333	56	\$566,915	\$489,453
CDPS *	80	254	142	\$789,496	\$476,773
CEO	1	2	3	\$8,450	\$3,720
DMVA	10	0	0	\$8,600	\$8,156
DNR	150	351	10	\$808,134	\$520,671
DOC	955	148	0	\$983,360	\$1,234,053
INMATE	0	0	0	\$0	\$285,510
DOLA	88	128	1	\$293,032	\$152,560
DORA *	88	128	1	\$217,640	\$190,449
DPA	89	45	2	\$129,415	\$123,172
GOV	24	31	6	\$65,385	\$58,248
HCPF *	3	174	0	\$295,596	\$162,053
HIST	24	33	4	\$63,975	\$20,618
OEDIT	3	14	1	\$19,710	\$11,315
OITHQ	27	133	2	\$263,401	\$205,849
TREAS	7	2	0	\$8,210	\$8,269
	4136	3439	1053	\$ 10,169,755	\$ 8,464,403
			Desktop:	\$3,873,119	
			Laptop:	\$4,401,236	
			Tablet:	\$1,895,400	\$10,169,755
			Google Apps:	\$2,473,185	
			Productivity Suite	\$ 5,991,218	\$8,464,403
			Service Hours:	21,570	
			Staff #:	11	\$862,800
Grand Total				Cost:	\$19,496,958

*Agencies who have Microsoft Enterprise Agreements will not need to repurchase the MS Office Suite

Part B - Network Report

Section I - Executive Summary

The report lists asset inventory as of October 1, 2019 and refresh cycle information for the agencies supported by the Governor's Office of Information Technology (OIT).

Data included:

- Count of Network Routers
- Count of Network Switches
- Count of Network Access Points (AP's)
- Count of Network Firewalls
- Count of Other Devices

Definition of equipment:

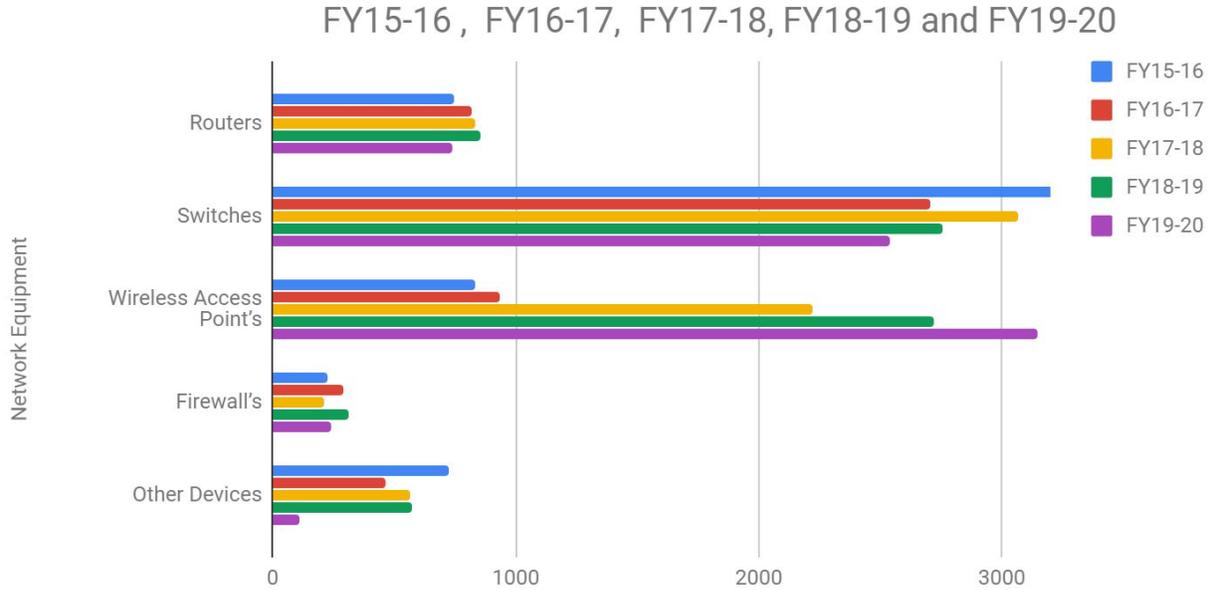
- **Router** - A router is a networking device that forwards data packets between computer networks. Routers perform the "traffic directing" functions on the Internet. A data packet is typically forwarded from one router to another through the networks that constitute the internetwork until it reaches its destination node.
- **Switch** - A network switch is a computer networking device that connects devices together on a computer network, by using packet switching to receive, process and forward data to the destination device.
- **Wireless Access Point** - A wireless access point (AP) is a device that allows wireless devices to connect to a wired network using Wi-Fi, or related standards. The AP usually connects to a router (via a wired network) as a standalone device.
- **Firewall** - A firewall is a network security system that monitors and controls the incoming and outgoing network traffic based on predetermined security rules.
- **Other Devices** - Includes Load Balancers, Wireless Controllers, and Wireless Bridges among others.

Network Infrastructure Asset Inventory Summary:

Network Equipment	FY 2015-16	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20
Routers	747	820	832	858	681
Switches	2,376	2707	3065	2758	2460
Wireless Access Point's	836	933	2220	2718	2984
Firewall's	228	289	210	310	261
Other Devices	726	467	568	571	118*

Total Devices	4,913	5,216	6895	7215	6504
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*The significant difference in other devices between this year and last year were duplicate power supplies and module cards identified.



Network Infrastructure Refresh Cycle Schedule:

OIT continues to maintain and centrally monitor the network device inventory for 17 agencies as well as core network infrastructure at two data centers and for the Capital Complex Network (CCLAN). With the approval of the FY 2015-16 R-01 IT Infrastructure Refresh and various funded agency projects and initiatives, OIT refreshed nearly 6% of aging network equipment in FY 2018-19.

OIT Network infrastructure equipment refresh recommendations are based off of multiple factors:

- New technology requirements;
- Critical business need;
- Manufacture End Of Support (EOS) policy of products that are no longer being sold and might not be supported.

The approved funding request provided \$944,200 for OIT to refresh aging network equipment for agencies. Equipment and cost projections fluctuate each year depending on critical equipment needs. The projected total cost of needed refreshes was approximately \$3 million. In combination with decision item funds, individual agency projects and initiatives, the Office was able to provide refreshes totaling approximately \$1.9 million in FY 2018-19.

Update or notes to this year’s report include:

- Cost projections have been updated since last year’s report.
- Equipment not refreshed in the prior and current years will roll over to the next and/or future years.
- Costs for some individual agency projects and initiatives that may fund some network equipment refresh have been accounted for in this report.
- The significant difference in other devices between this year and last year is the revised definition, removed modules and power supplies.

The table below identifies the projected costs of refreshed network equipment per agency and the actual costs spent in FY19:

Projected costs per Agency	FY 2018-19	Actual costs per Agency	FY 2018-19
Total All Agencies	\$3,296,226	Total All Agencies	\$1,961,350
CDA	\$0	CDA	\$110,829
CDHS	\$45,838	CDHS	\$62,389
CDLE	\$309,496	CDLE	\$75,151
DOR	\$159,590	DOR	\$23,7281
CDOT	\$0	CDOT	\$141,131
CDPHE	\$169,171	CDPHE	\$264,925
CDPS	\$0	CDPS	\$239,650
DMVA	\$0	DMVA	\$0
DNR	\$480,495	DNR	\$220,231
DOC	\$0	DOC	\$430,615
DOLA	\$0	DOLA	\$0
DORA	\$1,611,564	DORA	\$0
DPA	\$0	DPA	\$54,341
GOV	\$0	GOV	\$13,675
HCPF	\$0	HCPF	\$10,671
HIST	\$0	HIST	\$0
OIT	\$520,072	OIT	\$100,461
Core/CCLAN	\$0	Core/CCLAN	\$0

The chart below shows projected costs of equipment that is end of support between FY 2019-20 and FY 2023-24. With the OIT Enterprise Agreement we can expect at least a 42% discount off of list price with the manufacturer, costs shown in the discounted row:

	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	5 Year Average
List	\$2,421,755	\$2,116,024	\$2,046,113	\$3,019,231	\$4,251,325	\$2,770,890
Discount Cost	\$1,404,618	\$1,227,294	\$1,186,746	\$1,751,154	\$2,465,769	\$1,607,116

The chart below shows projected costs of equipment that is end of support at each agency between FY 2019-20 and FY 2023-24:

Total All Agencies	\$2,861,828	\$871,442	\$1,514,227	\$310,163	\$1,652,255	\$1,441,983
	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	5 Year Average
CDA	\$0	\$10,820	\$14,882	\$16,284	\$0	\$8,397
CDHS	\$240,419.87	\$41,966.80	\$56,752.52	\$30,080.61	\$22,664.56	\$181,059
CDLE	\$102,964	\$220,285	\$114,316	\$80,523	\$105,147.00	\$124,647
DOR	\$152,993.00	\$119,642.00	\$209,153.00	\$694,392.00	\$138,325.00	\$324,865
CDOT	\$385,159.00	\$337,105.00	\$42,807.00	\$180,833.00	\$520,533.00	\$293,287
CDPHE	\$115,398.00	\$81,980.00	\$204,566.00	\$495,361.00	\$254,934.00	\$230,448
CDPS	\$265,634.00	\$304,739.00	\$247,751.00	\$247,781	\$227,506.00	\$258,682
DMVA	\$0.00	\$0	\$0	\$0.00	\$0	\$0
DNR	\$177,264.00	\$16,408.00	\$77,386.00	\$103,799.00	\$171,621.00	\$109,296
DOC	\$317,496.00	\$307,889	\$95,352	\$362,291	\$625,306.00	\$341,667
DOLA	\$43,041.00	\$17,159	\$0	\$20,940	\$0.00	\$16,228
DORA	\$229,123	\$67,598	\$90,823	\$43,227.00	\$85,607.00	\$103,276
DPA	\$0.00	\$43,028.00	\$154,879.00	\$0	\$0.00	\$39,581
GOV	\$0.00	\$0.00	\$0.00	\$97,915	\$5,054	\$20,594
HCPF	\$91,824	\$12,650	\$219,033	\$22,460.00	\$0.00	\$69,193
HIST	\$4,459.00	\$0.00	\$223,230	\$0.00	\$67,908	\$59,119
OIT	\$0.00	\$65,789	\$56,578.00	\$345,621.00	\$0.00	\$236,508
CORE/CCLAN All	\$295,148.00	\$151,528	\$112,286.00	\$111,736.00	\$1,133,413.00	\$354,042

Trends:

- Historically OIT and state agencies have dealt with legacy systems when equipment fails. Replacement and systems upgrades are then requested on an individual ad hoc basis.
- OIT has not had a refresh cycle for centralized or decentralized network equipment. Prior to the 2008 consolidation a majority of departments did not have a refresh cycle for network equipment either. This has created an environment that is a mismatch of both old and new technologies which lack standardization.
- Non-standard network equipment is identified in this inventory and will be replaced through attrition.
- Equipment maintenance costs are added during the initial purchase for the first year. Historically after the first year of maintenance, agencies had the option to continue maintenance on the State maintenance contract. Moving forward, OIT intends to keep maintenance on all network infrastructure equipment.
- Some agencies may not have certain equipment listed, such as a firewall for example, because the function is shared from OIT equipment.

Exclusions:

- Leased Network Infrastructure Equipment:
 - State agencies spend approximately \$1,094,387 on leased network equipment each year. The leased assets are not included in this inventory.
 - Leased equipment costs for the Colorado State Network (CSN) contract is \$2,314,813 each year. The CSN contract was extended to April 30, 2022, and the State has options to extend to June 5, 2026 via various renewal periods determined by mutual agreement. The refresh cycle for CSN equipment is on a five (5) year basis or EOS of equipment.
 - Voice systems, PBX equipment and phone sets using legacy technologies were stand-alone by design and are not capable of being networked or monitored. In most cases, these systems provided basic utility-type phone service from the Public Switched Telephone Network (PSTN) and were locally managed at the site

level, therefore, no statewide inventories are available. As the technology has advanced and legacy voice systems are being replaced with enterprise systems carrying VoIP traffic on the Colorado State Network; we can access and monitor these systems and they will be managed by OIT in a centralized manner. Statewide inventories will be available in the future.

Non-Productivity Software:

- Category of non-productivity software and counts
- Definition of categories
- Refresh Cycle Information

Category	FY 2019-20
Monitoring and Management Tools	61
Network Utilities	64
Network Access Control	17
Screen Capture Tool	9
Network Configuration Editor	10
N/A	14
Total Installs	175

Category Definitions:

- **Monitoring and Management Tools:**
 - These tools are installed on servers to constantly monitor and manage the wired and wireless networks (e.g. SolarWinds, Cisco Prime, NetBrain)
- **Network Utilities:**
 - These utilities are usually installed on PCs to do verity tasks in terms of remote access, file transfer, network scanner, vulnerability scanner, team collaboration, network protocol analyzer, wireless site surveys and so forth (e.g. Putty, SecureCRT, VMware Horizon Desktop, Anyconnect, Filezilla, tft32, Lan Sweeper, Metasploit, Cisco Spark, Tamograph)
- **Network Access Control:**
 - These systems are installed on servers to provide TACACS+ for network device access control and RADIUS network access control for wired and wireless networks (e.g. Cisco ACS, Cisco ISE)
- **Screen Capture Tool:**

- These tools are installed to take a snapshot the whole /Partial of the screen (e.g greenshot, snipping tool)
- Network Configuration Editor:
 - These software are used to copy/paste and edit network device configuration. (e.g. notepad, notepad++)

Refresh Cycle information:

- With the exception of Network Access Control, Monitoring, and Management Tools there are generally no refresh cycles or recurring cost as the software is free to use.
- Network Access Control, Monitoring, and Management Tools require annual maintenance renewals.

Part D: Projected maintenance renewals costs:

	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24
Total Projected Cost	\$561,440	\$617,581	\$679,340	\$747,274	\$822,001

Section II - Data Detail

Data included:

- Count of network equipment as of October 1, 2019
 - As inventory is constantly changing, especially in some agencies, it was necessary to establish a cutoff date. This date will be used for each year hereafter.
 - This past year OIT manually updated the the combined inventory that was collected last year by implementing a process for agency network teams to submit a ticket for any changes to the inventory.
 - Discrepancies can be present due to devices that are not standard, devices that do not have maintenance or devices that have lapsed maintenance coverage.
 - The data was reviewed by Network Operations staff and managers.
- Date of Acquisition
 - Historically the acquisition date of network infrastructure equipment was not gathered; moving forward it will be tracked.
 - In some instances the acquisition date is too old, and an exact acquisition date is not available.
- Network Infrastructure Hardware Refresh Cycle:
 - There is no rule for refreshing network equipment. The general rule is to replace every three to five years, depending on the following factors:
 - 99.999% uptime does not favor older equipment
 - Significant advances require newer equipment
 - Vendor support can dictate the useful lifetime
 - It is possible to extend the life cycle of equipment such as end-user switches to seven years. These devices have been commoditized, and features change slowly.

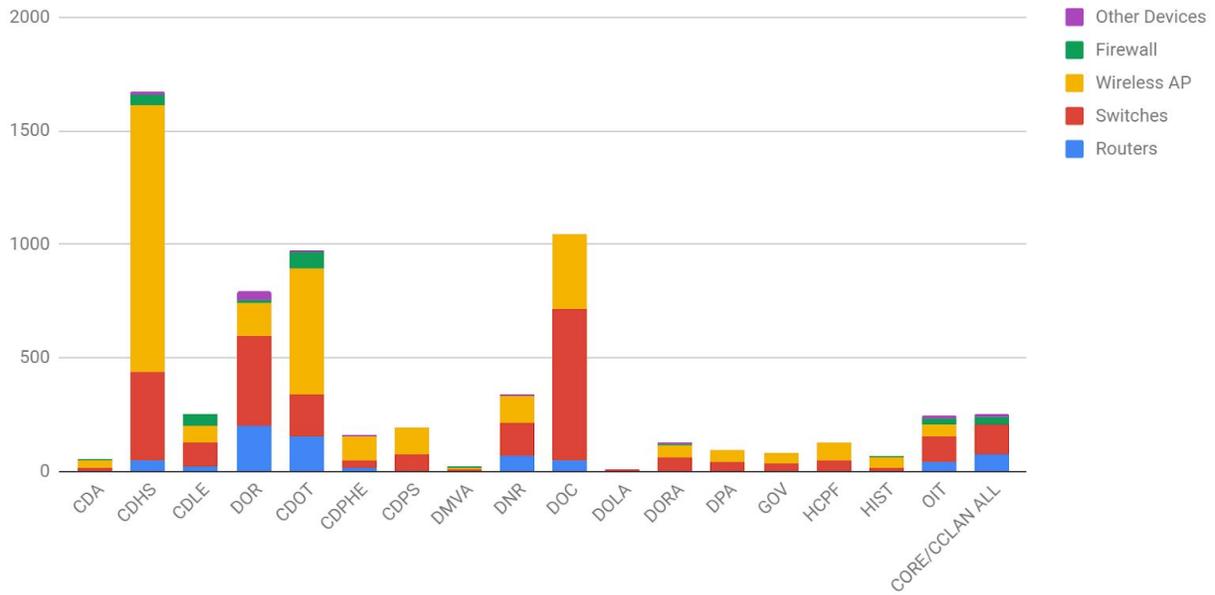
The need for vendor support is minimal and it is more cost effective to keep spare replacements than pay for maintenance.

- On the opposite end, leasing expensive enterprise equipment can be more cost effective than purchasing when it is upgraded frequently.

Network Equipment Totals by Agency FY2019-20:

Total All Agencies:	681	2460	2984	261	118	6504
	Routers	Switches	Wireless AP	Firewall	Other Devices	Total Devices
CDA	1	15	30	6	0	52
CDHS	50	390	1169	47	18	1674
CDLE	21	103	76	54	0	254
DOR	199	395	145	13	42	794
CDOT	151	189	553	74	3	970
CDPHE	18	31	105	0	6	160
CDPS	3	74	115	0	2	194
DMVA	0	8	6	5	1	20
DNR	67	143	124	0	3	337
DOC	46	669	330	0	1	1046
DOLA	1	6	0	0	0	7
DORA	3	56	57	6	7	129
DPA	0	40	54	0	0	94
GOV	0	38	41	0	0	79
HCPF	3	43	80	0	0	126
HIST	1	17	42	6	0	66
OIT	44	111	53	22	19	249
CORE/CCLAN ALL	73	132	4	28	16	253

FY19 Network Equipment Totals by Agency

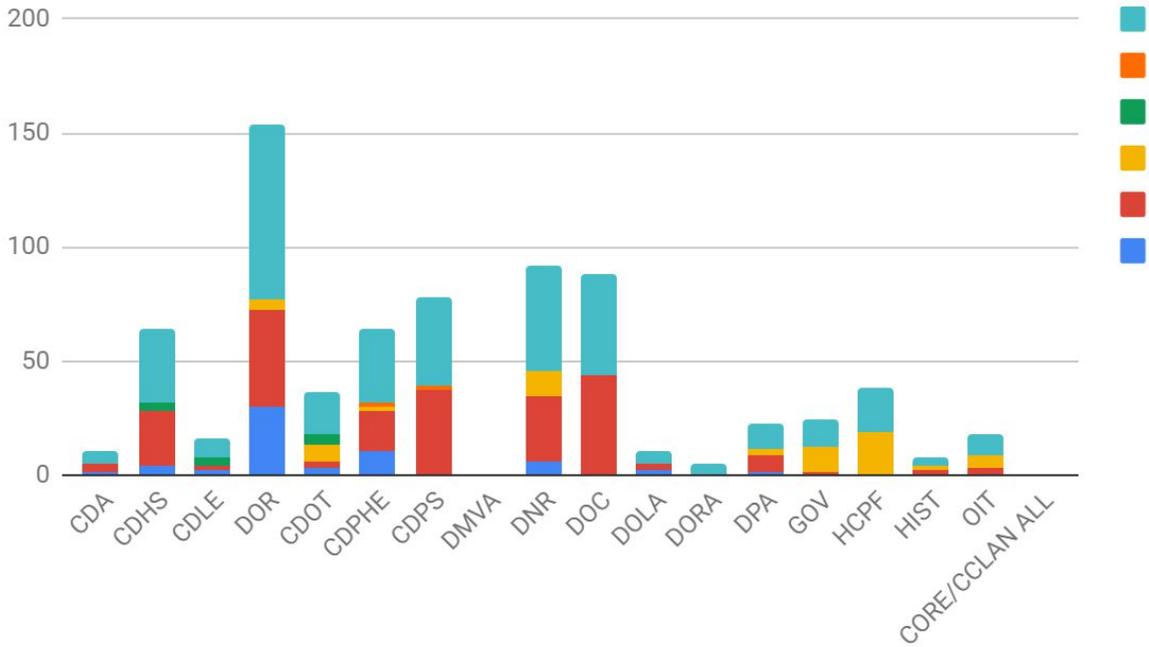


Network Equipment Refreshed in FY 2019-20:

Total All Agencies FY 2019-20	59	219	66	13	4	366
	Routers	Switches	AP's	Firewall	Other Devices	Total Devices
CDA	1	4	0	0	0	5
CDHS	4	24	0	4	0	32
CDLE	2	2	0	4	0	8
DOR	30	42	5	0	0	77
CDOT	3	3	7	5	0	18
CDPHE	10	18	2	0	2	32
CDPS	0	37	0	0	2	39
DMVA	0	0	0	0	0	0
DNR	6	28	12	0	0	46
DOC	0	44	0	0	0	44
DOLA	2	3	0	0	0	5
DORA	0	0	0	0	0	5
DPA	1	8	2	0	0	11
GOV	0	1	11	0	0	12

HCPF	0	0	19	0	0	19
HIST	0	2	2	0	0	4
OIT	0	3	6	0	0	9
CORE/CCLAN	0	0	0	0	0	0

Network Equipment Refreshed in FY19

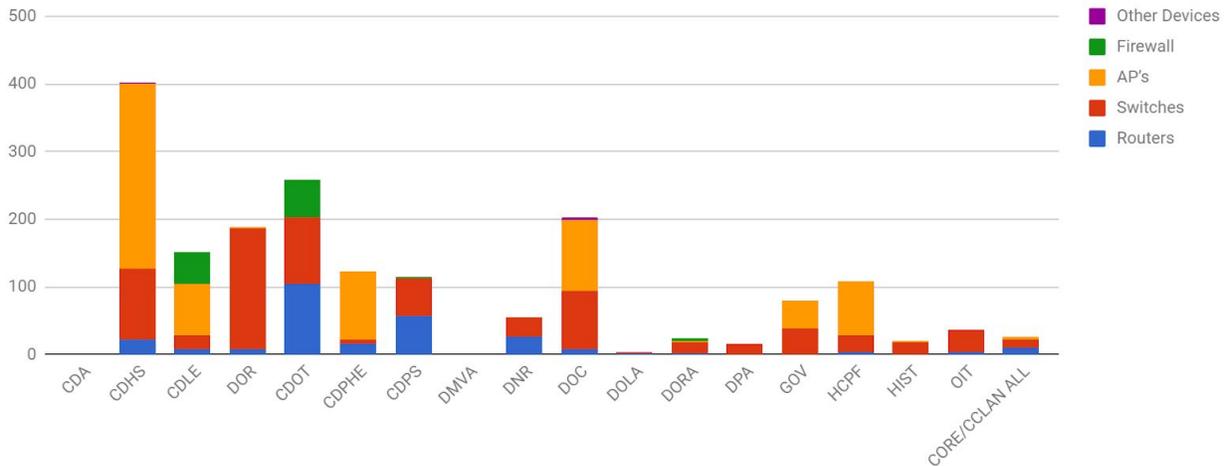


Network Equipment Totals by Agency that are end of support and targeted to be replaced between FY 2019-20 and FY 2023-24:

Total All Agencies FY 2019-20 & FY 2023-24	269	741	685	112	6	1813
	Routers	Switches	AP's	Firewall	Other Devices	Total Devices
CDA	0	0	0	0	0	0
CDHS	23	104	273	0	3	403
CDLE	8	21	76	47	0	152
DOR	8	178	2	1	0	189
CDOT	105	98	0	56	0	259

CDPHE	15	8	100	0	0	123
CDPS	56	56	1	2	0	115
DMVA	0	0	0	0	0	0
DNR	26	28	0	0	0	54
DOC	8	87	104	0	3	202
DOLA	2	2	0	0	0	4
DORA	2	16	1	6	0	25
DPA	0	16	0	0	0	16
GOV	0	38	41	0	0	79
HCPF	3	26	80	0	0	109
HIST	0	17	3	0	0	20
OIT	3	33	0	0	0	36
CORE/CCLAN ALL	10	13	4	0	0	27

FY20- FY24 End of Support Routers, Switches, AP's, Firewalls and Other Devices



Part C - Server Report

Section I - Server Summary

The report lists asset inventory as of September 11, 2019 and refresh cycle information for agencies supported by the Governor's Office of Technology (OIT).

Data included:

- Count of Servers by agency.
- Replacement schedule for physical servers.
- Refresh date of both virtual and physical servers at agencies.

Definitions:

- **Physical Servers** - Physical Servers are considered a more traditional solution and involve a piece(s) of hardware that are configured to perform a certain set of tasks. Generally this hardware is in a server room. They can play any role required in the business, from Mail Server to a Web Host Server or even a combination of a wide variety of roles where required. With physical servers there is a tendency to try and do more with less.
- **Virtual Servers** - A Virtual Server is normally one of many servers that operate upon a single physical server with each virtual server sharing the resources of the physical server between them. However, an effective virtual infrastructure cannot run upon a single physical server so proper implementation of virtual servers requires the use of multiple physical servers and a device capable of providing shared storage between the physical servers.

Server Asset Inventory Summary:

Physical Servers	754
Virtual Servers	2,987
Total Servers	3,741

Server Asset Inventory by agency:

Agency	Physical Servers	Virtual Servers
Total	754	2,987
CDA	14	37
CDHS State	68	121
CDLE	16	439
CDOR	161	88

CDOT	75	360
CDPHE	30	266
CDPS	70	148
DMVA	4	11
DNR	78	235
DOC	112	156
DOLA	1	42
DORA	4	82
DPA	17	139
GOV	6	19
HCPF	5	37
HIST	3	18
OIT	90	789

Section II - Server Refresh Cycle Schedule

OIT has developed a statewide life cycle process that targets to replace 25% of the existing server infrastructure each year in order to keep the state’s technology current and under warranty. OIT equipment refresh recommendations are based on multiple factors, including but not limited to:

- New technology requirements.
- Critical business need
- Operating System support
- Changes in security compliance

OIT is working to consolidate physical servers into virtual servers at the OIT datacenters wherever possible. This reduces cost to the agencies, allows for agency servers to be housed in a more robust environment (Larger UPS’s, 24x7 staffing, redundant HVAC systems, etc), and reduces the agency’s local server footprint requiring refresh. The chart below shows the refresh cycle for physical servers by agency.

Refresh costs below are based on the monthly hosting rate that OIT charges customers for virtual server hosting.

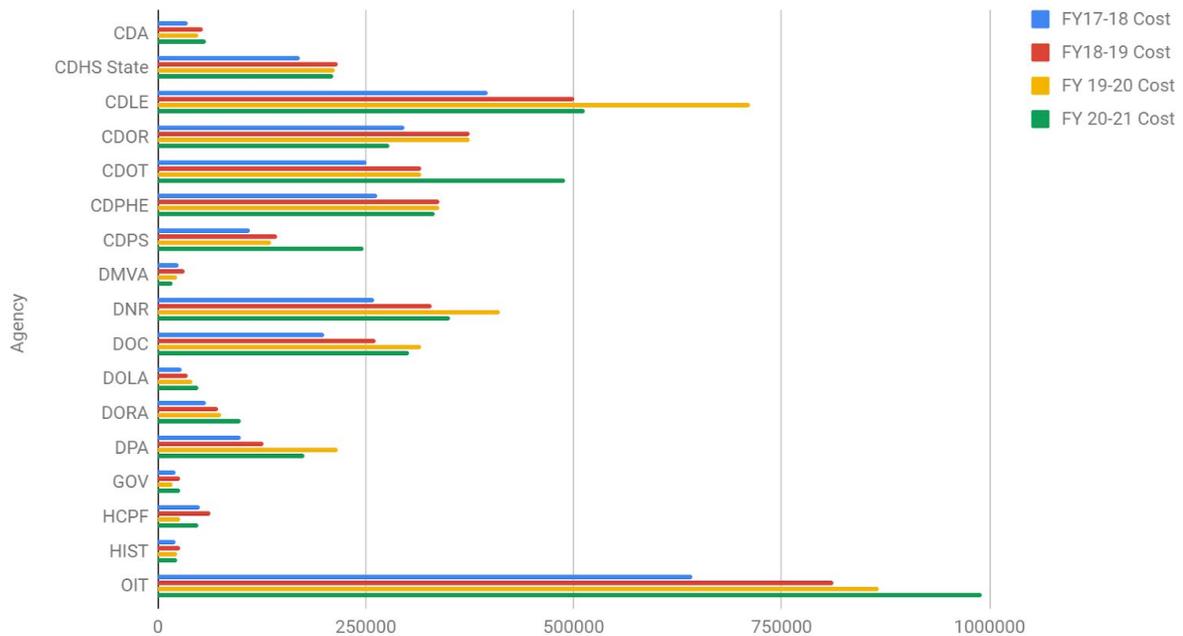
Agency	Total Servers	FY 2017-18	FY 2017-18 Cost	FY 2018-19	FY 2018-19 Cost	FY 2019-20	FY 2019-20 Cost	FY 2020-21	FY 2020-21 Cost
CDA	51	10	\$35,760	12	\$54,144	11	\$49,632	13	\$58,500
CDHS State	189	48	\$171,648	48	\$216,576	47	\$212,064	47	\$211,500

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CDLE	455	111	\$396,936	111	\$500,832	158	\$712,896	114	\$513,000
CDOR	249	83	\$296,808	83	\$374,496	83	\$374,496	62	\$279,000
CDOT	435	70	\$250,320	70	\$315,840	70	\$315,840	109	\$490,500
CDPHE	296	74	\$264,624	75	\$338,400	75	\$338,400	74	\$333,000
CDPS	218	31	\$110,856	32	\$144,384	30	\$135,360	55	\$247,500
DMVA	15	7	\$25,032	7	\$31,584	5	\$22,560	4	\$18,000
DNR	313	73	\$261,048	73	\$329,376	91	\$410,592	78	\$351,000
DOC	268	56	\$200,256	58	\$261,696	70	\$315,840	67	\$301,500
DOLA	43	8	\$28,608	8	\$36,096	9	\$40,608	11	\$49,500
DORA	86	16	\$57,216	16	\$72,192	17	\$76,704	22	\$99,000
DPA	156	28	\$100,128	28	\$126,336	48	\$216,576	39	\$175,500
GOV	25	6	\$21,456	6	\$27,072	4	\$18,048	6	\$27,000
HCPF	42	14	\$50,064	14	\$63,168	6	\$27,072	11	\$49,500
HIST	21	6	\$21,456	6	\$27,072	5	\$22,560	5	\$22,500
OIT	879	180	\$643,680	180	\$812,160	192	\$866,304	220	\$990,000
Total	3741	821	\$2,935,896	827	\$3,731,424	921	\$4,155,552	937	\$4,216,500

Below is a chart of the same data from above.

FY17-18 Cost, FY18-19 Cost, FY 19-20 Cost and FY 20-21



Part D - Non-Productivity Software

Section I - Non-Productivity Software Summary

The report lists asset inventory as of September 15, 2019 Governor's Office of Technology (OIT).

Inclusions:

- Count of non-productivity software (NPS) installed as of September 15, 2019 by category.
 - Count is by total number of installs of the software, not the total number of software package used. For example, an agency has 600 computers with the same software installed, the count is 600 installs, not as one software package.
 - This method helps to identify the most installed and eliminate the one-off installs.
 - This also helps with identifying common used NPS and the volume use.
- Definitions of categories in the next section of the report
- Proposed Fiscal Year NPS Refresh
- Recommended professional services
- Count of NPS installed as of Sept 15, 2019
- Software installed on OIT managed end user computers running Windows operating systems, where software data can be discovered.

Exclusions:

- OIT, Vendor and Agency staff costs to maintain and support the various non-productivity software packages.
 - This includes, but is not limited to, staff time to research, test, implement, provide security approval or waiver, track, train, maintain/upgrade, upgrade hardware, etc.
- The assumption is made that vendor supported software includes the cost of vendor support in addition to the software.
- Annual maintenance is calculated at an assumed 30% of initial cost.
- Productivity Software included in the Personal Computer - part (a) - portion of this Senate Bill 14-169 requirements.
 - Operating System, Productivity Suites, PDF professional software
- Software on federally owned computers provided to state employees where the federal program purchases, supports and maintains the computers.
- Software installed on State owned end user computers where software cannot be discovered.
 - State owned computers provided to the county where the State can only account for what was provided on the computer at the time of purchase. These

computers are on the county’s network, county staff supports and installs county needed software in addition to the state provided software.

- Cloud hosted software with no client install
- MacOS, Apple iOS applications, Chrome Applications, Android applications, Linux, virtual environment software.
- One off software of 5 or less installs in the agency

Observations:

- Some agencies are already working to have a defined list of approved software for use in the agency, reducing the number of software packages supported for the same purpose (i.e. agencies using different products/manufacturers to produce org charts, ad hoc reports, etc.
- OIT is already working to identify the common software packages used across the agencies in order to standardize and reduce software used across the enterprise, and leverage better pricing based on increased buying power of the enterprise vs each individual agency.
- In addition to the above two points, as the Agencies continue to get legacy, and aging software updated. As OIT security policies are working to enforce current -2 versions of software as the only installed and supported versions, we will see continued improvements in costs for non-productivity software.

NPS inventory summary:

Category	2019
Admin Tool Kits	492,908
Background Programs	1,161,285
Business Ops Software	181,953
Developer Software	77,204
Highly Technical Software	36,886
Non-Standard Software	45,488
System Software Utilities	237,366
Total installs	2,233,090

Category Definitions:

- Admin tool kits
 - Administrative software tools installed to monitor and/or maintain, servers, networks, firewalls, computers, printers, and client utility (e.g. Lansweeper, SCCM, ADUC, Network tools)
- Background Programs
 - Software packages that reside on the end user computer systems, but are not typically full applications (e.g. install/uninstall utilities, runtimes, software services/interfaces, language packs)
- Business Operations Software
 - Software not included in the Productivity Software definition that is used by State employees in the course of normal business operations (e.g. - ADA accommodation software used to run Business Operations or Productivity software, Adobe tools, web conferencing utilities)
- Developer software
 - Software required for developers to create software, websites, and servers (e.g. - Adobe Dreamweaver, Microsoft Visual Studio, plug-ins and add-ons for additional programming languages, SQL Server tools, Notepad ++ and other text editors for coding)
- Highly Technical
 - Business Operations Software of a highly technical nature that will typically have few installs (e.g. AutoCAD, ArcGIS, mapping software, crash reconstruction software, modeling tools)
- Non-standard software
 - Software used, but is not part of the agency business operations software but needed to interact with vendors, customers, oversight agencies and partners (i.e. webex, goto meeting, zoom)
- System Software Utilities
 - Software required for operating hardware devices, or applications and utilities that control or interface with a hardware device (e.g. - HP Jet Direct, scanner software, label printer software, ID printer software, and hardware drivers)

Section II - Methodology

- Projected refresh costs are calculated using the previous 3 fiscal year purchase data from the state's software purchasing vendor.
 - The data is sorted and the excluded software packages are removed, the remaining software data is averaged by agency for the previous 3 years and that is calculated as the projected annual cost for the agency.
 - Lottery joined Revenue as of July 1, 2019 increasing the overall numbers and costs.
 - DOC Inmate is excluded in refresh as the software used is virtual server and there is no cost for the client computer.

State of Colorado
SB 14-169 Non-Productivity Software Annual Report
Projected Refresh Costs
as of September 15, 2018

Projected costs by Fiscal Year				
Agency	FY2019-20	FY2020-21	FY2021-22	FY2022-23
CDA	\$ 5,324	\$ 5,377	\$ 5,431	\$ 5,485
CDHS	\$ 626,829	\$ 633,098	\$ 639,429	\$ 645,823
CDLE	\$ 460,375	\$ 464,979	\$ 469,629	\$ 474,325
CDOR	\$ 55,053	\$ 55,603	\$ 56,159	\$ 56,721
CSTARS	Part of CDOR	Part of CDOR	Part of CDOR	Part of CDOR
CDOT	\$ 634,372	\$ 640,716	\$ 647,123	\$ 653,595
CDPHE	\$ 207,780	\$ 209,858	\$ 211,957	\$ 214,076
CDPS	\$ 140,269	\$ 141,672	\$ 143,089	\$ 144,520
CEO	\$ 7,764	\$ 7,842	\$ 7,920	\$ 8,000
DMVA	\$ 19,108	\$ 19,299	\$ 19,492	\$ 19,687
DNR	\$ 49,097	\$ 49,588	\$ 50,084	\$ 50,585
DOC	\$ 42,610	\$ 43,036	\$ 43,466	\$ 43,901
INMATE	N/A	N/A	N/A	N/A
DOLA	\$ 11,737	\$ 11,855	\$ 11,973	\$ 12,093
DORA	\$ 25,903	\$ 26,162	\$ 26,423	\$ 26,687
DPA	\$ 22,849	\$ 23,077	\$ 23,308	\$ 23,541
GOV	\$ 1,428	\$ 1,442	\$ 1,457	\$ 1,471
HCPF	\$ 201,082	\$ 203,093	\$ 205,124	\$ 207,175
HIST	\$ 476	\$ 481	\$ 485	\$ 490
OEDIT	\$ 2,403	\$ 2,427	\$ 2,451	\$ 2,476
OITHQ	\$ 5,117,559	\$ 5,168,735	\$ 5,220,422	\$ 5,272,626
TREAS	N/A	N/A	N/A	N/A
Annual Total	\$ 7,632,019	\$ 7,708,339	\$ 7,785,422	\$ 7,863,276

State of Colorado
SB 14-169 Non-Productivity Software Annual Report
INVENTORY SUMMARY BY AGENCY
as of September 2019

Agency	Software Category							Grand Total
	Admin Tool Kits	Background Program	Business Ops Software	Developer Software	Highly Technical Software	Non-Standard Software	System Software Utilities	
CDA	4,411	10,601	1,588	304	140	732	3,647	21,423
CDHCPF	14,699	26,634	5,417	1,219	270	522	9,207	57,968
CDHS	95,797	235,002	30,781	10,525	2,643	9,669	47,682	432,099
CDLE	32,977	75,399	9,300	7,184	759	2,301	11,712	139,632
CDNR	29,584	74,586	11,675	6,886	4,075	5,726	19,036	151,568
CDOC	59,132	141,463	27,636	9,309	3,267	2,449	31,639	274,895
CDOLA	3,770	12,617	1,194	136	121	455	1,768	20,061
CDOR	39,578	62,845	7,418	13,822	707	2,989	10,583	137,942
CDORA	12,660	25,945	2,946	1,157	119	2,798	3,498	49,123
CDOT	65,759	195,629	40,393	5,956	18,469	4,046	25,538	355,790
CDPA	9,337	23,665	3,203	715	340	1,149	3,394	41,803
CDPHE	44,026	109,375	12,769	11,347	1,649	3,430	18,365	200,961
CDPS	32,040	80,558	13,027	4,326	3,228	5,086	33,591	171,856
CEO	347	941	97	5	11	82	108	1,591
CST	559	722	274	62		95	289	2,001
CSTARS	29,639	43,484	8,291	1,324	327	1,947	9,569	94,581
DMVA	795	1,485	413	10	85	104	698	3,590
GOV	1,300	3,229	391	42	26	192	439	5,619
HCC	4,217	9,399	1,398	84	178	445	1,685	17,406
OEDIT	877	2,104	265	33	14	90	312	3,695
OIT-HQ	11,404	25,602	3,477	2,758	458	1,181	4,606	49,486
Grand Total	492,908	1,161,285	181,953	77,204	36,886	45,488	237,366	2,233,090
% by category	22%	52%	8%	3%	2%	2%	11%	